NEW MEMBERS, 1950[1]

Adams, Jack Donald, 3 Cherry Lane Heights, W. Lafayette, Ind. Bo
Allen, M. Ann, 1318 14th St., Bedford, Ind. Bo, Z, Ba
Anderson, Dr. Carrolle Elizabeth, Dept. of Biology, Earlham College, Richmond, Ind. Bo, Z
Armacost, Dr. Richard R., Court D No. 65, W. Lafayette, Ind. Bo, Z
Bard, Dr. Raymond C., Dept. of Bacteriology, Indiana University, Bloomington, Ind. Ba
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Bidney, Dr. David, Dept. of Anthropology, Indiana University, Bloomington, Ind. A
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Brandt, Prof. Warren W., Dept. of Chemistry, Purdue University, West Lafayette, Ind. C
Britt, Eugene M., Miles Research Labs., Elkhart, Ind. Ba
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Brooks, Erwin R., F.P.H.A. 220-2 W. State St., W. Lafayette, Ind. Bo
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Cowen, Martha Ernestine, Cliffton Park, Mechanicville, R.D. 2, N.Y. Ba
Craig, Joseph T., Hanover, Ind. C, Bo, Z
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Daugherty, J. Claude, Attica High School, Attica, Ind. C, Ph
Diller, Erold R., 923 E. Atwater Ave., Bloomington, Ind. C
Dimmick, Dr. Robert L., F.P.H.A. Apt. 514-2, W. Lafayette, Ind. Ba
Dragoo, John R., Room 204, Medical Bldg., Bloomington, Ind. Bo, Z
Eberly, William R., Laketon, Ind. Bo, Z
Faulkner, Clifford R., 430 Grant St., West Lafayette, Ind. Bo
Ferguson, Byron L., Dept. of Chemistry, Valparaiso University, Valparaiso, Ind. C
Fink, John Benson, Dept. of Psychology, Indiana University, Bloomington, Ind. Ps
Fletcher, Robert I., 800 S. Locust St., Apt. 6B, Greencastle, Ind. Bo, Ba
Forney, Dr. Robert B., 5105 Primrose, Indianapolis, Ind. Z
Franchere, Corinne M., School of Medicine, Indiana University, Indianapolis, Ind. Z

[1] Abbreviations following the members' listings indicate the section of the Academy with which they are affiliated.

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Gentilcore, Dr. R. Louis, Dept. of Geography, Indiana University, Bloomington, Ind. G
Goethe, C. M., Capital National Bank Bldg., Sacramento 14, Cal. Z
Gregor, Dr. Howard F., Dept. of Geography, Indiana University, Bloomington, Ind. G
Gumpper, C. Richard, 230 W. Jackson, Apt. D, Elkhart, Ind. Z
Hasenstab, Louis D., 1813 Brookside Ave., Indianapolis 1, Ind. Bo
Hayek, Dr. Mason, 316 Nichols Ave., McDaniel Crest, Wilmington, Del. C
Heaton, C. Edward, 824 E. University St., Bloomington, Ind. Z
Henning, Dr. Carl, Hanover, Ind. Bo
Hesemeyer, James H., R.R. 9, Stellhorn Rd., Ft. Wayne 8, Ind. Ph
Hillegas, Prof. William M., 1603 E. 3rd. St., Apt. 03, Bloomington, Ind. Z
Hull, Dr Ralph, Dept. of Mathematics, Purdue University, Lafayette, Ind. M
Humm, Dr. Frances D., Dept. of Surgery, Indiana University Medical Center, Indianapolis, Ind. C
Inlow, Paul M., 212 N. Harrison St., Shelbyville, Ind. Z
Inlow, Dr. William Deprez, 103 W. Washington St., Shelbyville, Ind. Z
Johnson, Howard A., R.R. 3, Box 19, Franklin, Ind. Ph
Joice, Juanita, Tolleston School, 17th & Taney, Gary, Ind. C, Ph
Jones, J. Johanna, 333 W. Hampton Dr., Indianapolis 8, Ind. Bo
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Kaska, Harold V., Apt. K-5, Woodlawn Court, Indiana University, Bloomington, Ind. G
Klos, Stanley J., Indiana Central College, Indianapolis, Ind. Z
Kowitz, William, Valparaiso University, Valparaiso, Ind. G
Kronsbein, Prof. John, Evansville College, Evansville, Ind. M, Ph
Ladman, Aaron J., Dept. of Anatomy, Indiana University, Bloomington, Ind. Z
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Lindemeyer, Joan, Delta Zeta House, Greencastle, Ind. Ba
Lindenschmidt, Mary Jean, Anderson College, Anderson, Ind. Z
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Moss, Dr. Robert Louis, Dept. of Anatomy, Indiana University, Bloomington, Ind. Z
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Neher, Donald, 424 E. Seventh St., Bloomington, Ind. Ba
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Niemann, Ralph H., 317 N. Vine St., West Lafayette, Ind. M
Nisbet, Jerry J., 1619 W. Ninth St., Muncie, Ind. Bo
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Norby, Darwin E., Dept. of Botany, Indiana University, Bloomington, Ind. Bo
Nussbaum, Prof. Elmer, Dept. of Physics, Taylor University, Upland, Ind. Ph
Odell, Theodore T., Dept. of Zoology, Indiana University, Bloomington, Ind. Z
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Schweiger, Dr. Leonard B., Miles Research Labs., Elkhart, Ind. Ba
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Weiss, Dr. Emilio, Dept. of Bacteriology, Indiana University, Bloomington, Ind. Ba
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Westmeyer, Paul H., R.F.D. 1, Dillsboro, Ind. G
Wiebe, Dr. Harold T., Taylor University, Upland, Ind. Z
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Wright, Jack Elvin, 1320 E. Market St., New Albany, Ind. Bo, Z
Wyckoff, L. Benjamin, Jr., Dept. of Psychology, Indiana University, Bloomington, Ind. Ps
Young, Woodson C., M.D., 740 S. Alabama St., Indianapolis, Ind. G, Z

JUNIOR ACADEMIES

Sci-Math Club, Attica High School, Attica, Ind.
Up-N-Atom Science Club of Crawfordsville High, S. Green, Crawfordsville, Ind.
Future Scientists of America, Tolleston School, Gary, Ind.

INDIANA JUNIOR ACADEMY OF SCIENCE

Officers for 1950:

President: Tom Moon, Central Junior Academy, Central High School, South Bend.

Vice-President: Sue Shaffner, Chemistry Club, Shortridge High School, Indianapolis.

Secretary: Marilyn Beckett, Biology Club, New Castle High School, New Castle.

Members of the Council: Darl F. Wood, Mishawaka, (1947-1951); Evelyn Wagoner, Elkhart, (1948-1952); Max Forsyth, Indianapolis, (1949-1953); Harold Stewart, Bloomington, (1950-1954); Arthur L. Smith, South Bend, (1951-1955).

PROGRAM OF THE EIGHTEENTH ANNUAL MEETING

November 4, 1950

Assembly Room, The Auditorium
Hanover College, Hanover, Indiana

9:00-10:00 a.m. Exhibits. Physics Laboratory, Physics Building

10:00 a.m. Morning Session, Assembly Room, Auditorium.

General session, Tom Moon, presiding.

Greetings, Dr. Grant T. Wickwire, Department of Geology, Hanover College.

Reading of minutes of the 1949 meeting, Marilyn Beckett, Secretary.

1. "Mendelian Laws and the Domestic Fowl," (illustrated), Harry Krueckeberg, Nature Study Club, Arsenal Technical High School, Indianapolis.

2. "The Entomologist and His Work," June Graves, National Scientific Honor Society, Bloomington High School, Bloomington.

3. Demonstration—"Analysis of a War Nickel With Emphasis on Electro-Deposition of Copper," William Arbaugh, (assisted by Miss Mona Jane Wilson), Science Club, Shortridge High School, Indianapolis.

4. "Reaction Rates of Trypsin," Wilfred Buchanan, Biology Club, Lew Wallace High School, Gary.

5. "Hydroponics," Joan Freeman, Science Club, Mishawaka High School, Mishawaka.

6. Demonstration—"Plastics," William Cook, Ralph Daveline, Roman Busick, Noel Kindt, Chemistry Club, Central Junior Academy, Central High School, South Bend.

7. "Medical Mycology Studies," Watson M. Laetsch, Science Club, Thomas Carr Howe High School, Indianapolis.

8. "Construction of Electrical Demonstration Units," Charlie Ellis, Science Club, University High School, Bloomington.

1:15 p.m. Afternoon session, Assembly Room, Auditorium.
Business session

9. "Preliminary Report of a Bird Breeding Population Study," Kelly Wise, Biology Club, New Castle High School, New Castle.

10. Demonstration—"Photography," Judith Shepherd, Jim LaFollette, Jim Pirtle, Bevra Boyll, Camera Club, Sullivan High School, Sullivan.

11. "Bacteria Studies of Vanilla and Chocolate Ice Cream," David Eads, Richard Theobold, Science Club, Thomas Carr Howe High School, Indianapolis.

12. "Taxidermy," Robert Petty, Science Club, Thomas Carr Howe High School, Indianapolis.

13. "Food Habits of Indiana Small Fish," Russell Noyes, Science Club, University High School, Bloomington.

14. "Brief Report on the Progress of the Junior Academy," Howard H. Michaud, State Sponsor, Junior Academy of Science, Purdue University.

15. "Toys and Science," Science Club, Centennial School, Lafayette.

16. Motion Picture—"The Fight Against Cancer," The Indiana Cancer Society, Indianapolis.

MINUTES

The eighteenth annual meeting of the Indiana Junior Academy of Science was held Saturday, November 4, 1950, in the assembly room of the Auditorium, Hanover College, Hanover, Indiana.

The exhibit room opened at 9:00 a.m., in the physics laboratory of the science building. Various scientific projects and demonstrations were displayed.

The general session was called to order by president, Tom Moon, Central Junior Academy, Central High School, South Bend. He next introduced the vice-president, Sue Shaffner, Chemistry Club, Shortridge High School, Indianapolis, and the secretary, Marilyn Beckett, Biology Club, New Castle High School, New Castle.

The minutes of the 1949 meeting were read by the secretary. Dr. Grant T. Wickwire, Department of Geology, Hanover College, welcomed the members of the Junior Academy and spoke of the relation of science to human living. He emphasized that "the soil of freedom is the only soil in which science thrives."

Harry Krueckeberg, Nature Study Club, Arsenal Technical High School, Indianapolis, opened the morning program with an illustrated talk on the "Mendelian Laws and the Domestic Fowl." He explained

the heredity in a chicken and the heredity of tallness and shortness in peas.

June Graves, National Scientific Honor Society, Bloomington High School, Bloomington, followed with a talk on "The Entomologist and His Work." She discussed the value of insect collecting as a hobby and explained the materials required and the methods used to obtain best results.

"The Analysis of a War Nickel with Emphasis on Electro-Deposition of Copper," was the topic presented by William Arbaugh, Shortridge High School's Chemistry Club, Indianapolis. He pointed out that the war nickel actually contained no nickel, but was composed of copper and other metals.

The possibilities of the use of trypsin in combatting tuberculosis and other lung diseases were discussed by Wilfred Buchanan, Biology Club, Lew Wallace High School, Gary, in a talk entitled, "Reaction Rates of Trypsin." He explained how future studies may benefit mankind.

"Hydroponics," was the topic discussed by Joan Freeman, Science Club, Mishawaka High School, Mishawaka. Two methods of growing plants with the use of water and chemicals were mentioned.

Next, William Cook, Ralph Daveline, Roman Busick, and Noel Kindt, Chemistry Club, Junior Academy, Central High School, South Bend, explained various processes used in making plastics.

Watson Laetsch, Science Club, Thomas Carr Howe High School, Indianapolis, explained his "Medical Mycology Studies." He discussed the processes of contamination and the methods used in making slides for the purpose of identification.

The morning program was concluded with a talk by Charlie Ellis, Science Club, University High School, Bloomington, on the "Construction of Electrical Demonstration Units." He used diagrams to show several electrical circuits and explained that these helped in the understanding of the actual circuits.

Many of the Junior Academy members attended the luncheon at which Mr. Marvin Amos spoke on the Soda-Bowl, the recreational center of the college.

The afternoon session was called to order at 1:15 p.m. The following students were elected as officers of the Junior Academy for 1951: David Thomas, Junior Academy, Elkhart High School, Elkhart, president; Judith Shepherd, Camera Club, Sullivan High School, Sullivan, vice-president; Marilyn Swift, Sciemus Club, Valparaiso High School, Valparaiso, secretary.

The first speaker of the afternoon was Kelly Wise, Biology Club, New Castle High School, who reported on "A Bird Breeding Population Study." Slides were shown to illustrate the areas which his study included and the nests found in each section.

A "Demonstration on the Processes Used in Photography" was pre-

sented by members of the Sullivan High School Camera Club. Judith Shepherd, Jim LaFollette, Jim Pirtle, and Bevra Boyll showed the various steps in the development of a photograph.

Next on the program was a "Bacteria Study in Vanilla and Chocolate Ice Cream," by David Eads, Science Club, Thomas Carr Howe High School, Indianapolis. Through experiments it had been found that bacteria multiplied more rapidly in chocolate than in vanilla ice cream.

A paper on "Taxidermy," prepared by Robert Petty, also of the Thomas Carr Howe High School Science Club, was presented. The principles of preparing skins for animal mounts were discussed.

Russell Noyes, Science Club, University High School, Bloomington, explained the "Food Habits of Indiana Small Fish." He described the method of determining the approximate food intake of the fish.

Professor Howard H. Michaud, State Sponsor, reported on the progress of the Junior Academy. He announced the names of the students selected by the Junior Academy Council for the titles of "best boy" and "best girl." The title of "best boy" was awarded to Watson Laetsch, Science Club, Thomas Carr Howe High School, Indianapolis, and Joan Freeman, Science Club, Mishawaka High School, was named "best girl." A new system of voting for election of officers was suggested by Professor Michaud. If the plan is approved by the council, two delegates from each high school represented will conduct the election of officers. The national and state science talent search was mentioned. This annual competition for finding science talented seniors in the high schools is sponsored jointly by Science Clubs of America, the Junior Academy of Science, and the Indianapolis Times.

Following these announcements, a demonstration was presented by students of the Science Club, Centennial School, Lafayette. The scientific principles involved in toys were illustrated with a number of interesting examples. This club is the only elementary science club in the Junior Academy.

The program was concluded with a motion picture, "The Fight Against Cancer," furnished by the Indiana Cancer Society.

Approximately two hundred club members, sponsors, and guests attended the excellent meeting at Hanover.

The meeting was adjourned at 4:15 p.m. by president Tom Moon.

EXHIBITS

The exhibits were installed Saturday morning. An attractive display of exhibits was presented, in spite of the great distance many clubs had to travel. Twenty-five science projects were shown by the following clubs:

National Scientific Honor Society, Bloomington High School, Bloomington, Harold Stewart, Sponsor.

Junior Academy, Chemistry Club, Central High School, South Bend, F. S. Sanford, Sponsor.

Science Club, Morton Junior High School, Hammond, Faye E. Moorman, Sponsor.

Biology Club, New Castle High School, New Castle, Robert Rinehart, Sponsor.

Science Club, Thomas Carr Howe High School, Indianapolis, Jerry Motley, Sponsor.

Science Club, University High School, Bloomington, Jack Munsee, and Prevo L. Whitaker, Sponsors.

Biology Club, Lew Wallace High School, Gary, Mrs. Helen McKenzie, Sponsor.

INDIANA JUNIOR ACADEMY OF SCIENCE CLUBS

Name and School	Date Organized	Sponsor
Anderson		
Science	1936	B. B. Horton
Attica		
Sci-Math	1949	J. Claude Daugherty
Bloomington		
National Scientific Honor Society, Bloomington H.S.	1931	Harold Stewart
Science, University H.S.	1938	P. L. Whitaker Jack Munsee
Crawfordsville		
Up-N-Atom	1950	David Wells
Elkhart		
Junior Academy	1940	Evelyn Wagoner
Fort Wayne		
Phy Chem, Elmhurst H.S.	1935	Ruth Wimmer
Nature, Central High School	1940	Iva Spangler
Nature, North Side High School	1936	Vesta Thompson C. H. Ott
Gary		
Beaker Breakers, Edison H.S.	1947	Mrs. Martha B. Connor
Future Scientists of America Tolleston School	1949	Juanita Joice
Biology, Lew Wallace H.S.	1935	Lola Lemon
Klub Kem Klub, Lew Wallace H.S.	1941	Mrs. Helen McKenzie
Biology, William A. Wirt H.S.	1945	Mrs. Frances Huddleston
Hammond		
Science, Morton Jr. H.S.	1949	Faye E. Moorman
Huntingburg		
Science	1949	Wilmer K. Pellett
Indianapolis		
Science, Thomas Carr Howe H.S.	1949	Jerry Motley
Chemistry, Shortridge H.S.	1931	William Johnson

Nature, Shortridge H.S.	1947	Mrs. Henrietta A. Parker
Nature, Technical H.S.	1932	Howard L. Cook
Science, Washington H.S.	1937	Estil Van Dorn
Lafayette		
Science, Centennial School	1948	Henrietta S. Ball
Marion		
Science	1936	Keith Stroup
Mishawaka		
Science	1936	Darl F. Wood
New Castle		
Biology	1948	Robert Rinehart
Richmond		
Science, Senior H.S.	1949	Katherine Coulter Elma Eliason
South Bend		
Junior Academy, Central H.S.	1939	
A. Junior Izaak Walton		A. L. Smith
B. Chemistry		F. S. Sanford
Sullivan		
Camera	1939	Ruth Hinkle
Terre Haute		
State Discovery, Laboratory School	1939	Russell McDougal
Valparaiso		
Sciemus	1931	Glenn Fisher

INSTRUCTIONS FOR CONTRIBUTORS

Eligibility

Papers

Indiana Academy of Science members in good standing are eligible to submit papers for publication in the Proceedings. When a paper is signed by two or several authors, all must be members in good standing. Preferably, eligibility should be established before submitting the paper, as such papers are given priority. In any case, all authors must be certified by the Treasurer for payment of dues and old reprint bills at the time of the deadline (see below). Papers reaching the editor after the deadline are ineligible. All papers must be accompanied by an abstract in the form specified below, marked "for the editor".

Abstracts

If the Divisional Chairman puts a paper on his program for the Fall Meeting, the abstract will be printed in the Proceedings regardless of the author's membership status, unless the full paper is published.

Time and procedure for Submitting Abstracts: One typed **original** of each abstract, marked "for the editor" may be submitted to the Divisional Chairman before the meeting or the author may mail it direct to the editor. This should be ready for publication with a minimum of editing, i.e., in the standard abstract form (see a Proceedings abstract) and double spaced; it should not include directions to the chairman regarding time, lantern, etc. The latter information may be added to a copy marked "for the Divisional Chairman" and sent to him. The editor cannot accept carbon copies of abstracts or papers. The length of an abstract should not exceed 200 words. Items A, B, C, E, F, and O apply generally to abstracts as well as papers.

Deadline at Editorial Office

Whether sent *via* the Divisional Chairman as prescribed, or directly, all material for the Proceedings must reach the editor within 20 days following the Fall Meeting.

Preparation of Manuscripts

A. **Refer to Volume 60 of the Proceedings for the accepted style of abstracts and papers, and follow this, especially in literature citations, headings, and footnotes.**

B. Type on 11 x 8½ inch bond paper with a new ribbon, leaving ample margins. **Double-space everything,** including title, author's names and institutions, footnotes, quotations, legends and literature list. The original will become the printer's copy; if it must be retyped it will be sent back to the author for this.

C. Footnotes should be kept to an absolute minimum. Necessary footnotes should be numbered consecutively throughout; asterisks are not used. Acknowledgments may be placed only in the introduction or in a footnote. If your abstract must cite literature, use a footnote.

D. LITERATURE CITATIONS in a paper should not occur in footnotes, but in an **alphabetized** list at the end of the paper, **headed "Literature Cited".** The highly abbreviated form used by chemists has **not** been adopted for the Proceedings. Follow this model:

7. Doe, J. B., and R. C. Roe. 1949. New light from old radioactive carbon. Jour. Am. Biological Soc. **34**:273-305.

E. Only initial letters of the words in titles, headings, and table headings should be capitalized.

F. Do not underline anything except scientific names, in headings or elsewhere.

G. All literature listed, and all tables and illustrations should be **referred to** in the text.

H. Tables, which are very expensive to print, should be reduced to a minimum. Avoid small tables scattered through the text. Each table should be typed on a separate letter-size sheet.

I. New authors, especially, are reminded that a scientific paper should summarize the work, not recapitulate it. It must be very much more concise than a university thesis, avoiding all unnecessary material, especially long tables and lists of little interest except to the author.

J. Major professors are urged to **review** all papers by their graduate students, for both form and content, before they are sent in for publication. Of those based upon university theses, manuscripts carrying a pencilled O. K. and signature by the professor will be given preference over those without such indication of review.

K. Photographs should be printed on glossy paper, and have good contrast. It is best to mount them trimmed to fit tightly together at the edges, in groups on stiff cardboard with rubber cement. Proportion the group for a full page of the Proceedings, or use the full width of the page (4⅛″) and any part of the page's height. Do not mix line drawings and photographs in the same group. Legends should be on a separate letter-size sheet, numbered to correspond.

L. The originals for line drawings need be no more than twice the diameter desired for the printed figure. The lettering should be very carefully done, and of suitable size to allow for the necessary reduction. Do not submit printed maps when the necessary reduction will efface the narrower lines or render some of the lettering hardly legible; such maps should be redrawn and lettered in adequate size letters, omitting unnecessary details. It is suggested that the total of illustrations and tables not exceed 20 per cent of the length of the whole paper.

M. The summary should be complete and clear in itself, and not over 4 percent of the length of the paper. For very short papers no summary is necessary.

N. Reprints of papers are paid for by authors, at cost. They are ordered at the time the author returns the corrected galley proof to the editor. Abstracts are not reprinted.

O. The editor needs, at the time he mails out galley in March, **current addresses** for all coauthors of all abstracts and papers. Many former graduate students lose the opportunity to order reprints when mail addressed to them is returned for lack of forwarding addresses. It is suggested that the student's permanent home address be written on the reverse side of that abstract copy marked "for the editor."

Selection of Papers

Every year a few more papers are submitted than can be published with the available funds. Therefore, not all papers received can be included in the Proceedings. Manuscripts prepared concisely, in the style recommended above, will receive first consideration. Authors should not expect to publish very long papers in the Proceedings. Among papers of primarily regional interest, e.g., in certain aspects of botany, zoology, geology, geography, and anthropology, those dealing with Indiana material will be accorded preferance.

The selection of papers for the Proceedings is the responsibility of the Editorial Committee.

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