

MEETINGS OF RELATED GROUPS

As in the past several years, those interested in entomology and systematic botany took advantage of the occasion of the fall meeting and held informal conferences on Saturday forenoon, November 6.

Entomology.—The meeting was called to order by Henry G. Nester, of Butler University, chairman. Fifteen to twenty were present during all or a part of the conference.

A. C. Kinsey showed specimens of cynipids and galls collected in Mexico and Central America and discussed the relationship of his studies on this group to genetics and evolution.

C. E. Gould showed living specimens of six species of roaches found in Indiana and discussed their habits. His report of the tropical brown-banded roach, *Supella supellectilium* Serv. is a new record for the state.

J. J. Davis outlined the courses in entomology now given at Purdue and spoke of research in progress. C. Benton discussed trap crops as controls for chinch bugs. G. A. Ficht described the damage to tomatoes from nematode root knot, cutworm injury to fruit buds, and the status of the European corn borer problem in Indiana. W. B. Noble described his efforts to obtain a strain of wheat resistant to the Hessian fly.

Philip Luginbill showed illustrations of the genitalia of Phyllophaga which had been photographed by a special process and discussed the distribution of the group.

G. E. Lehker announced plans for a conference of insecticide dealers and discussed his work as extension entomologist with home demonstration agents and 4-H clubs.

Philip Luginbill, Bureau of Entomology and Plant Quarantine, Box 495, Lafayette, was chosen chairman for 1938.

Systematic Botany.—The meeting was called to order by Dr. Theodore Just, chairman. About fifteen persons were present.

Ralph M. Kriebel discussed in more detail the status of *Quercus shumardii*, which he had previously presented in the Botanical Section, and indicated its distribution in Indiana.

The botanical garden recently founded at Huntington College was brought to the attention of the group, and the discussion which followed developed numerous ideas as to how even a small garden may contribute to the efficiency of teaching and research.

Plans for a summer field meeting were discussed, and the details of arrangements were left to the new chairman.

Ralph M. Kriebel, Box 110, Newcastle, was elected chairman for 1938.

ADDITIONS TO MEMBERSHIP, 1937

- Adams, Norval E., 1017 Laurel St., Elkhart.
Adams, R. A., 246 N. Sixth St., Decatur.
Beck, Ralph L., 406 S. Seventh St., Goshen.
Becker, Charles E., Station Hospital, Ft. Harrison.
Bulliet, Mrs. Mildred, 1404 N. Church St., Rockford, Illinois.
Carman, Dr. Lucille, College Hospital, North Manchester.
Caldwell, Ralph M., Dept. of Botany, Expt. Sta., Lafayette.
Clipp, Dr. Wendell V., 1104 Guilford St., Huntington.
Coats, Miss Nellie M., Indiana State Library, Indianapolis.
Cottman, Evans W., R. R. 5, Madison.
Cummins, Dr. George B., Purdue Expt. Sta., Lafayette.
Diehl, Dr. Harvey, Dept. of Chem., Purdue University, Lafayette.
Dinwiddie, William G., 1818 Central Ave., Indianapolis.
Eastwood, Dr. Floyd R., R. R. 10, West Lafayette.
Griffin, Donald T., 141 S. Meridian St., Indianapolis.
Halfast, Richard W., 625 E. South St., Carry, Pennsylvania.
Hamlett, Mrs. Iona Cuyler, 801 E. State Boulevard, Ft. Wayne.
Hamer, O. Stuart, 705 N. Sycamore St., North Manchester.
Hartzler, Dr. H. Harold, Goshen College, Goshen.
Hazel, Dr. Herbert C., R. R. 4, Bloomington.
Hobbs, Clinton H., Dept. of Biology, Purdue University, Lafayette.
Hooker, William J., 453 Littleton St., West Lafayette.
Huffman, Jasper A. Marion.
Hughes, Miss Leda Mae, 326 Audubon Rd., Indianapolis.
Hughes, Robert M., Indiana Reformatory, Pendleton.
Hunt, Prof. Virgil, Central Normal College, Danville.
Hutchison, Lee P., 716½ Rockhill St., Ft. Wayne.
Kent, John F., 198 State St., Franklin.
King, Lawrence J., 1362 Ratliff St., Richmond.
Kintner, J. Dana, 1713 N. Johnson St., South Bend.
Knight, Prof. F. B., Dept. of Psychology, Purdue University, Lafayette.
Krueger, Dr. Levi M., 6542 Monroe Ave., Hammond.
Kunz, Walden H., Indiana Technical College, Ft. Wayne.
Larson, Prof. Raymond G., Manchester College, North Manchester.
Leasure, Mrs. Nettie N., 1110 Home Ave., North Manchester.
Lohman, Dr. Marion L., Dept. of Botany, Indiana Univ., Bloomington.
Mackay, Dr. Elizabeth L., 633 Kossuth St., Lafayette.
Marchant, Guy B., Evansville College, Evansville.
Mattox, Norman T., Dept. of Biology, Purdue University, Lafayette.
Menger, Prof. Karl, Box 206, Notre Dame.
Meyer, Dr. Herbert A., Hanover.
Meyer, Dr. Jacob G., 505 E. Ninth St., North Manchester.
Miller, Dr. Donald E., Ball State College, Muncie.
Moffett, Sam M., R. R. 5, Madison.
Molter, Rev. John A., Zahn Hall, Notre Dame.
Morgan, Prof. C. L., 242 Marsteller St., Lafayette.

Morgan, Miss Ruth, 298 West St., Franklin.
 Nieset, Rev. Carl F., St. Joseph College, Collegetown.
 Parker, Druley, 925 E. 36th St., Indianapolis.
 Patterson, Miss Virginia, 794 S. Home Ave., Franklin.
 Platt, William, 240 E. King St., Franklin.
 Prettyman, Prof. Robert L., 6171 Primrose Ave., Indianapolis.
 Raisor, Floyd W., 816 West Powers St., Muncie.
 Randall, Walter C., Akeley, Pennsylvania.
 Rumble, Dr. Ora E., 11½ N. 14th St., Terre Haute.
 Shipley, Prof. Edna, 2236 College Ave., Huntington.
 Siegrist, Rev. U. J., St. Joseph College, Collegetown.
 Smith, Marsh Hunter, 707 Hayes St., West Lafayette.
 Smith, William M., 651 E. 48th St., Indianapolis.
 Spangler, Miss Iva, 128 E. Foster Parkway, Ft. Wayne.
 Storms, Lee B., 802 S. E. First St., Evansville.
 Tapy, George Francis, 6 Mills Place, Crawfordsville.
 Thomas, Harold A., 245 E. Creighton Ave., Ft. Wayne.
 Tryon, Rolla M., Jr., 5432 Woodlawn Ave., Chicago.
 Van Dorn, Estil B., 1053 W. 35th St., Indianapolis.
 Voegelin, Mrs. Erminie W., 710 E. Washington, Greencastle.
 Vonnegut, Miss Pauline, 1804 Park Ave., Indianapolis.
 Waldorf, Robert O., 670 E. Jefferson St., Franklin.
 Wallace, Charles F., 908 S. Governor St., Evansville.
 Watts, Miss Maxine O., 2508 W. Main St., Muncie.
 Welty, S. H., 1304 S. Eighth St., Goshen.
 Whitney, Miss Esther, 1930 Sugar Grove Ave., Indianapolis.
 Wimmer, Miss Ruth M., Mt. Etna, Huntington.
 Wilson, Henry Spence, 2305 Lexington Rd., Louisville, Kentucky.
 Wolfe, Ranald M., 1526 Mills Ave., Indianapolis.
 Yeager, Prof. Edgar L., 503 S. Jordan Ave., Bloomington.
 Young, Miss Charlotte, 601 Elm St., Urbana, Illinois.
 Young, J. Emmert, 137 Pierce St., West Lafayette.
 Young, Prof. James H., Marion College, Marion.

JUNIOR ACADEMIES OF SCIENCE

Phi-Chem Club, Elmhurst School, Fort Wayne.
 Science Club, George Washington High School, Indianapolis.
 General Science Club, Greencastle High School, Greencastle.
 Edison Junior Academy of Science Club, Thomas A. Edison School,
 Hammond.

INDEX

| | |
|---|-----|
| Academy foundation, Report of..... | 13 |
| Acetylenes, Preparation and properties of..... | 116 |
| Acidity of dunes and bogs..... | 100 |
| Acidity of tree bark..... | 106 |
| Ailanthus as honey plant..... | 227 |
| Akeley, E. S., on Stochastic processes and generating functions... | 196 |
| Alkyl mandelic acids, Preparation of..... | 139 |
| Allisbaugh, H. C., (and L. C. Morgan) on Immunization against colds | 59 |
| Allyn, W. P., on Staining methods..... | 308 |
| Amino acids, Formulae of..... | 115 |
| Andrews, Robert, (with others) on Mandelic acids..... | 139 |
| Angular distribution for resonance disintegration..... | 193 |
| Archeological survey, Report of committee on..... | 13 |
| Archeology, Program of section on..... | 46 |
| Atmospheric variations, Effects of..... | 176 |
| Attitudes, Learning and forgetting of..... | 213 |
| Auditing committee, Report of..... | 9 |
| Auditory vs. visual signals..... | 220 |
| Automobiles, Braking reaction times of..... | 220 |
| Automobiles, Stopping distance of..... | 198 |
| Bacteriology, Program of section on..... | 58 |
| Bark, Acidity and moisture in..... | 106 |
| Barnett, Jean Paul, (and J. E. Potzger) on Pollen analyses of bogs | 73 |
| Bartholomew County, Geology of..... | 146 |
| Bats, A rare Indiana species..... | 229 |
| Behrens, C. A., (and G. H. Echelbarger) on Virus suspensions.... | 58 |
| Binkley, W. W., (and Ed. F. Degering) on Ethyl amidosulfonate.. | 122 |
| Biological survey, Report of committee on..... | 14 |
| Black, Glenn A., on Hopewellian culture..... | 47 |
| Blanchard, W. M., on Amino acids..... | 115 |
| Bogs and dunes, Acidity of..... | 100 |
| Bonding committee, Report of..... | 15 |
| Booth, Frederick, on A new concept of vision..... | 212 |
| Botany, Program of section on..... | 71 |
| Breeze, Fred J., on New Corydon limestone in Indiana..... | 147 |
| Brown County, Geology of..... | 146 |
| Buckley, W. T., on The Columbia Basin reclamation project..... | 146 |
| Bulliet, Mildred W., on The crystal detector as rectifier of short waves | 206 |
| Butler, Amos W., Memorial..... | 20 |
| Butler, Amos W., Portrait..... | 21 |
| Cable, R. M., on cercariae of Indiana..... | 227 |
| Calcite, Dispersion of by X-rays..... | 195 |

| | |
|---|------|
| Carbon, Absorption of from body cavity..... | 228 |
| <i>Carex picta</i> , Dioecism in | 72 |
| Carlson, J. F., on Collision of Dirac particles..... | 194 |
| Cat, Abnormal anatomy of..... | 285 |
| Cathode rays, Radiation produced by..... | 196 |
| Cercariae of Indiana..... | 227 |
| Chemiluminescent compounds | 124 |
| Chemistry, Program of section on..... | 115 |
| Climate as affected by atmospheric variations..... | 176 |
| Cockroaches | 281 |
| Colds, Immunization against..... | 59 |
| Collins, George B., (with V. G. Reiling) on The production of asymmetric radiation by cathode rays..... | 196 |
| Columbia Basin reclamation project..... | 146 |
| Committees for 1937..... | 7, 8 |
| Committees, Reports of..... | 9 |
| Conditioned response in dogs..... | 214 |
| Conservation in an agricultural state..... | 230 |
| Corn Belt, Droughts in..... | 149 |
| Cottman, E. W., (and others) on Chemiluminescent compounds.... | 124 |
| Council, Minutes of meeting of..... | 9 |
| Crystal detector as rectifier of short waves..... | 206 |
| Cynipidae of Mexico..... | 261 |
| Deay, H. O., (with G. E. Gould) on Cockroaches..... | 281 |
| Degering, Ed. F., (with W. W. Binkley) on Ethyl amidosulfonate.. | 122 |
| Dirac particles, Collision of..... | 194 |
| Divisional chairmen for 1938, Announcement of..... | 20 |
| <i>Drosophila</i> , A new mutation in..... | 256 |
| Droughts of 1930, 1934, and 1936 in the Corn Belt..... | 149 |
| Dunes and bogs, Acidity of..... | 100 |
| Dutcher, John B., Memorial..... | 30 |
| Earth, Forces and motions of the..... | 197 |
| Echelbarger, G. H., (with C. A. Behrens) on Virus suspensions.... | 58 |
| Edington, Will E., Presidential address of..... | 35 |
| Editor, Report of..... | 15 |
| Elliott, F. R., (and C. M. Louttit) on Automobile warning signals.. | 220 |
| Entomologists, Meeting of..... | 315 |
| Ethyl amidosulfonate, Preparation and properties of..... | 122 |
| Executive committee..... | 7 |
| Executive committee, Minutes of..... | 13 |
| Ferro-magnetism, Detection of by X-rays..... | 195 |
| Flora of Indiana..... | 76 |
| Foley, A. L., on The earth's forces and motions..... | 197 |
| Fungi, Effect of oxygen on inhibition of..... | 96 |
| Fungi, Effect of ultraviolet rays on..... | 93 |
| Fungi, of Indiana..... | 88 |
| Gall wasps of Mexico..... | 261 |
| Gardner, Carl H., (with Raymond E. Girton) on Measurement of leaf areas | 72 |
| Gem stones, Polished surface of..... | 145 |
| General session, Minutes of..... | 20 |

| | |
|--|----------|
| Geology and Geography, Program of section on..... | 143 |
| Geomorph | 143 |
| Girton, Raymond E., (and Carl H. Gardner) on Measurement of leaf areas | 72 |
| Gould, G. E., (and H. O. Deay) on Cockroaches..... | 281 |
| Grasses of Indiana..... | 75 |
| Gray, William D., on <i>Stemonitis fusca</i> | 86 |
| Guard, Arthur T., on Tulip blight..... | 73 |
| Guth, Eugene, on Natural and synthetic rubber..... | 194 |
| Haas, Arthur, on The physics of the universe..... | 193 |
| Hale, Doris M., (with W. A. Hiestand) on Respiration in molluscs.. | 293 |
| Hartman, R. J., (with others) on Photo-stability of suspensoids... | 130 |
| Hawkins, Stacy Otto, Memorial..... | 31 |
| Hay fever, Treatment of..... | 73 |
| Hazel, H. C., on Modulation..... | 196 |
| Henderson, W. J., on The production of radio active substances... | 196 |
| Hennion, G. F., on Acetylenes..... | 116 |
| Hiestand, W. A., on Respiration of molluscs..... | 287, 293 |
| Honey from Ailanthus..... | 227 |
| Hopewellian culture..... | 47, 50 |
| Howe, J. D., (and I. Wallerstein) on Fringing flux in magnets... | 195 |
| Indian corn, The homeland of..... | 46 |
| Indiana, Boundaries of..... | 144 |
| Cercariae of | 227 |
| Deaths from violence in..... | 145 |
| Flora | 76 |
| Fungi | 88 |
| Grasses | 75 |
| Mosses | 78 |
| New Corydon limestone..... | 147 |
| Oil-bearing structures | 146 |
| Rainfall intensity in..... | 147 |
| The mineral wool industry of..... | 162 |
| Irvine, James (with others) on Mandelic acids..... | 139 |
| James, H. M., on The spectrum of hydrogen..... | 192 |
| Jamieson, W. A. (with H. M. Powell) on Merthiolate..... | 65 |
| Jung, D. H., (and others) on Photo-stability of suspensoids..... | 130 |
| Junior Academy of Science..... | 311 |
| Report on | 18 |
| Karpinski, R. W., on The boundaries of Indiana..... | 144 |
| Kellogg, W. N., (with E. L. Walker) on Conditioned response in dogs | 214 |
| Kinsey, A. C., on Mexican gall wasps..... | 261 |
| Kriebel, Ralph M., on <i>Quercus Shumardii</i> | 71 |
| Kunkel, K. M., on Conservation in an agricultural state..... | 230 |
| Lark-Horovitz, K., on Detection of magnetism by X-rays, (with E. P. Miller) on Non-crystalline forms of selenium..... | 195 |
| <i>Lasiurus cinereus</i> in Indiana..... | 229 |
| Lawson, W. P., (with others) on Abnormal anatomy of the cat... | 285 |
| Leaf areas, Measurement of..... | 72 |
| Lemanea in Indiana..... | 72 |
| Library committee, Report of..... | 15 |

| | |
|--|----------|
| Linguistic change, Directions of..... | 48 |
| Lohman, M. L., on Indiana fungi..... | 88 |
| Lophine | 124 |
| Lott, A. V., Effects of atmospheric variations..... | 176 |
| Louttit, C. M., (with F. R. Elliott) on Automobile warning signals..... | 220 |
| Magnets, Fringing flux in..... | 195 |
| Malott, Clyde A., Indiana oil-bearing structures..... | 146 |
| Martens, Louis, on Dioecism in <i>Carex picta</i> | 72 |
| Martin, R. E., on Stopping distances of automobiles..... | 198 |
| Mathematics, Program of section on..... | 189 |
| Members, Additional list of..... | 316 |
| Membership committee, Report of..... | 15, 20 |
| Menger, Karl, on Projective geometry..... | 189 |
| Merthiolate as a biological preservative..... | 65 |
| Mexican gall wasps..... | 261 |
| Meyer, A. H., on The Geomorph..... | 143 |
| Miller, E. P., (and K. Lark-Horovitz) on Non-crystalline forms of selenium | 195 |
| Mineral wool industry of Indiana..... | 162 |
| Modulation | 196 |
| Moffett, R. B., (with others) on Chemiluminescent compounds.... | 124 |
| Moffett, S. M., (with others) on Chemiluminescent compounds.... | 124 |
| Molluscs, Respiration of..... | 287, 293 |
| Morgan, L. C., (with H. C. Allisbaugh) on Immunization against colds | 59 |
| Mosses of Indiana..... | 78 |
| Mound Builders | 53 |
| Myers, R. D., on Angular distribution for resonance disintegration..... | 193 |
| Necrology | 21 |
| Nelson, Ralph Emery, Memorial..... | 31 |
| New Corydon limestone in Indiana..... | 147 |
| Nominating committee, Report of..... | 19, 20 |
| Novitski, Edward, (and S. A. Rifenburgh) on A new mutation in <i>Drosophila</i> | 256 |
| Officers, Election of for 1938..... | 20 |
| List of for 1937..... | 7 |
| Reports of | 9 |
| Ogden, R. P., (with others) on Abnormal anatomy of the cat..... | 285 |
| Oil-bearing structures in Indiana..... | 146 |
| Oxygen, Effect of on inhibition of fungi..... | 96 |
| Palmer, C. M., on Lemanea in Indiana..... | 72 |
| Perkins, S. E., on <i>Lasiurus</i> in Indiana..... | 229 |
| Photo-stability of suspensoids | 130 |
| Physics, Program of section on, 192; of the universe..... | 193 |
| Pollen analyses of bogs | 73 |
| Potzger, J. E., on Acidity of dunes and bogs..... | 100 |
| On Indiana grasses..... | 75 |
| (With Jean Paul Barnett) on Pollen analyses of bogs..... | 73 |
| Powell, H. M., (and W. A. Jamieson) on Merthiolate..... | 65 |
| Presidential address | 35 |

| | |
|--|----------|
| Press secretary, Report of..... | 16 |
| Prettyman, Robert L., on Pollen analyses of bogs..... | 73 |
| Program committee, Report of..... | 16 |
| Program improvement, Committee on..... | 10 |
| Report of committee on..... | 19 |
| Projective geometry | 189 |
| Protozoa, Staining methods for..... | 308 |
| Psychology, Program of section on..... | 212 |
| Publication of Proceedings, Report of committee on..... | 9, 16 |
| Quadrupole rotation-vibration spectrum of hydrogen..... | 192 |
| <i>Quercus Shumardii</i> in Indiana..... | 71 |
| Radio active substances, Production of..... | 196 |
| Rainfall intensity in Indiana..... | 147 |
| Reiling, V. G., (and George B. Collins) on The production of asymmetric radiation by cathode rays..... | 196 |
| Relations of the Academy to the state, Report of committee on..... | 17 |
| Relativity as applied to concept of vision..... | 212 |
| Remmers, H. H., on The learning and forgetting of attitudes..... | 213 |
| Research committee, Report of..... | 10, 17 |
| Resolutions committee, Report of..... | 20 |
| Respiration of molluscs..... | 287, 293 |
| Riebsomer, J. L., (and others) on Mandelic acids..... | 139 |
| Rifenburgh, L. A., (with Edward Novitski) on A new mutation in <i>Drosophila</i> | 256 |
| (And others) on Abnormal anatomy of the cat..... | 285 |
| On The teaching of Zoology..... | 228 |
| Roaches | 281 |
| Rubber, natural and synthetic..... | 194 |
| Science and modern thought..... | 35 |
| Scott, J. P., on Preparation of skeletons..... | 254 |
| Scott, Will, Memorial..... | 33 |
| Sedimentation in Tippecanoe and Winona Lakes..... | 234 |
| Selenium, Non-crystalline forms of..... | 195 |
| Skeletons, Preparation of..... | 254 |
| Smith, B. H., on <i>Ailanthus</i> honey..... | 227 |
| Smith, E. R., on Hay fever treatment..... | 73 |
| Smith, William M., on Pollen analyses of bogs..... | 73 |
| Snails, Reproduction of..... | 299 |
| Spring meeting, Minutes of..... | 11 |
| Staining methods for Protozoa..... | 308 |
| Steen, E. B., on Trematodes..... | 228 |
| <i>Stemonitis fusca</i> | 86 |
| Stochastic processes and generating functions..... | 196 |
| Storms, L. B., (with others) on Photo-stability of suspensoids..... | 130 |
| Suspensoids, Photo-stability of..... | 130 |
| Switzer, J. E., on Droughts in the Corn Belt..... | 149 |
| Systematic botanists, Meeting of..... | 315 |
| Thornbury, W. D., on The mineral wool industry of Indiana..... | 162 |
| Tippecanoe Lake, Sedimentation in..... | 234 |
| Torrey, T. W., on The absorption of colloidal carbon..... | 228 |
| Treasurer, Report of..... | 9, 18 |

| | |
|---|----------|
| Trematodes | 227, 228 |
| Tryon, R. M., on Flora of Indiana..... | 76 |
| Tulip blight | 73 |
| Ulrich, H. P., on Geology of Bartholomew and Brown Counties..... | 146 |
| Ultraviolet light, Effects on fungi..... | 93 |
| Virus suspensions | 58 |
| Visher, S. S., on Indiana deaths from violence..... | 145 |
| On Indiana rainfall..... | 147 |
| Vision, A new concept of..... | 212 |
| Visual vs. auditory signals..... | 220 |
| Voegelin, C. F., on Linguistic change..... | 48 |
| Voegelin, Erminie W., on The Mound Builders..... | 53 |
| Wade, Frank B., on Gem stones..... | 145 |
| Walker, E. L., (and W. N. Kellogg) on Conditioned response in dogs. | 214 |
| Wallerstein, I., (with J. D. Howe) on Fringing flux in magnets..... | 195 |
| Weatherwax, Paul, on The homeland of Indian corn..... | 46 |
| Weer, Paul, on Hopewellian culture..... | 50 |
| Welch, Winona, on Mosses of Indiana..... | 78 |
| Whitmer, R. M., on Dispersion of calcite by X-rays..... | 195 |
| Whitney, Margaret E., on Reproduction in a snail..... | 299 |
| Wilson, Ira T., on Sedimentation in lakes..... | 234 |
| Winona Lake, Sedimentation in..... | 234 |
| Winter meeting, Place of in 1938..... | 20 |
| Program of | 12 |
| X-rays and dispersion of calcite..... | 195 |
| In detection of ferro-magnetism..... | 195 |
| Young, Charlotte, on Acidity and moisture in tree bark..... | 106 |
| Young, J. E., on Effects of ultraviolet rays on fungi..... | 93 |
| Zoology, Method of teaching..... | 228 |
| Program of section on..... | 226 |
| Zumstein, R. B., on Effect of oxygen on inhibition of fungi..... | 96 |



