

## INDEX TO VOLUME XXXI.

- Absorption of Water by Root System Plants, 273.  
 Abstracts, 260, 418.  
 Address of the President, 243.  
 Agallia, The Genus, External Characters Used to Distinguish the Species Injuring Economic Crops, 377.  
 Ahlstrom and Tiffany, article by, 455.  
 Alexander, W. H., article by, 193.  
 Algæ of Southern Florida, Freshwater, 271.  
 Algæ, Plankton, 455.  
 Alimentary Canal of *Asaphes mimnonius* Hbst., 386.  
 Alimentary Canal of *Meracantha contracta* Beauv. (Tenebrionidæ), 143.  
 Alimentary Canal of *Sphaeroderus nitidicollis* Chev. var. *Schaumi* Chd., 406.  
 Ancient Life of the Arctic, 243.  
 Anticipation of Correct Responses as a Source of Error in Learning Serial Responses, 419.  
 Arctic, Ancient Life of, 243.  
 Argulidæ, 453.
- Bainbridge Limestone, Remarkable Fossiliferous Lens in, 278.  
 Baldwin, S. Prentiss, articles by, 172, 260, 269.  
 Bangham, Ralph V., article by, 263.  
 Basal Metabolism of College Students, 288.  
 Bean, Lonzo G., article by, 290.  
 Berry, Willard, article by, 281.  
 Bigham, John T., article by, 386.  
 Biological Evolution, Present Tendencies in the Philosophy of, 129.  
 "Bird Sanctuary" Suggestions, 172.  
 Bisporangiate Inflorescences in *Pseudotsuga*, 416.  
*Blarina brevicauda* (Say) Habits of the Short Tailed Shrew, 97.  
 Blood Pressure of an Opossum, 294.  
 Book Reviews, 176, 180, 192.  
 Brassfield Limestone in Southeastern Ohio, Horizon of the, 275.  
 Braun, Annette, article by, 512.  
 Bucher, Walter H., article by, 282.  
 Burt, Harold E., article by, 418.
- Camp, W. H., article by, 157.  
 Cephalopods of America, Europe and Asia, Earliest Known, 280.  
*Cercaria gorgonocephala* Ward, Observations on, 115.  
 Check-list as an Instrument to Determine Personality Changes in Pre-school Children, 425.  
 Chen, T. T., article by, 262.  
*Chroococcus limneticus*, 455.  
 Collection of "Progress" Indices for Ohio Counties, 424.  
 Comments on the Interrelations of Intelligence Test Score, Stated Intention of Going to College and Occupational Choice of High School Seniors, 426.  
 Comparison of the High Relief Finger Maze and an Improved Form of the Stylus Maze, 419.  
 Comparison of the Maine and Connecticut Shorelines, 283.  
 Copepods, Parasitic, 453.  
*Coregonus clupeaformis*, Embryology of the Whitefish, 268.  
 Correlation Between Dry Weather and the Storage of Organic Reserves in Alfalfa Roots, 272.  
*Crucigenia apiculata* var. *eriensis*, 463.  
 Crustacean, A New, 127.  
 Cummins, James W., article by, 275.
- Davidson, Ralph H., article by, 377.  
 Davis, B. M., article by, 286.  
 DeLong, Dwight M., article by, 177, 377.  
 Dental Hygiene, Status of, 290.  
 Determinate Evolution. IV, Studies in, 1.  
 Determination of the Dielectric Constants and Densities of Brom-Benzene-Hexane Solutions, and the Determination of the Electric Moment of the Brom-Benzene Molecule, 298.  
 Devonian Corals of Ohio, 275.  
*Dictyosphaerium planctonicum*, 458.  
 Dietary Habits of Barn Owls in Ohio, 263.  
 Diurnal Variations, Fish Ponds at Fairport, Iowa, 120.  
 Dolomite in an Ohio Cave, Recent Formation of, 276.  
 Drainage Changes in the Vicinity of Loudonville, Ohio, 368.  
 Drainage Systems and the Dynamic Cycle, The Development of, 309.  
 Dudycha, George J., articles by, 107, 129.  
 Dunham, W. E., article by, 181.

- Dunn, Paul H., article by, 278, 279.  
 Dury, Charles, Obituary, 512.
- Ecology of Some Grasshoppers of the Genus *Melanoplus* in Southeastern Ohio, 265.
- Edgerton, Harold A., article by, 426.  
 Editorial Note, 514.
- Effect of Emotional Stimuli on the Activity Level of the White Rat, 419.
- Effect of Hypnosis on Long Delayed Recall, 425.
- Effect of Rhythm and Reverie on the Machine Worker, 425.
- Epibranchial Ganglion of the Glosso-pharyngeal Nerve in *Amblystoma jeffersonianum*, 335.
- Ergasilidae, 454.
- Erosion Surfaces in Eastern Ohio, 277.
- Evolution, LeConte's Epitome of, 107.
- Evolutionary Movements, Characteristic Examples of Accumulative Progressive; Studies in Determinate Evolution, V, 346.
- Evolution of the Sciences, An Optimistic View of the, 255.
- Evolution, Present Tendencies in the Philosophy of Biological, 129.
- Evolution, IV, Studies in Determinate, 1.
- Experiment on the Relative Effectiveness of the Lecture-quiz and the Recitation Methods of Class Instruction in Elementary Psychology, 418.
- Field Trip, Announcement of Plans for, 278.
- Findings in the Part and Whole Methods of Learning, 423.
- Finley, George W., article by, 270.
- Finns in Ohio, 277.
- Fish Ponds, Diurnal Variations in the Amount of Dissolved Oxygen, Alkalinity, and Free Ammonia, 120.
- Foerste, Aug. F., articles by, 243, 280.
- Fossil Footprints, 501.
- Footprints, Fossil, 501.
- Footprints from the Pennsylvanian, Fossil, 281.
- Foraminifera of the Bainbridge, 279.
- Franceia tuberculata*, 462.  
 var. *irregularis*, 463.
- Frost, R. B., article by, 284.
- Gastric Ulcer, Studies on, 295.
- Geist, R. M., article by, 505.
- Genus *Agallia*—External Characters Used to Distinguish the Species Injuring Economic Crops, 377.
- Geography of Onion Culture, A Study in the, 17.
- Geology of the Vicinity of Ticonderoga, 284.
- Glaciation of Northwestern Holmes County, Ohio, 429.
- Glock, Waldo S., article by, 309.
- Golenkinia maxima*, 461.  
*radiata* var. *brevispina*, 461.
- Gomphosphaeria lacustris*, 457.
- Graham, William A. P., article by, 127.
- Grass Balds of the Great Smoky Mountains, 157.
- Gratz Division of the Cynthiana Series of Central Kentucky, 274.
- Growdon, C. H., article by, 422.
- Hall, C. W., article by, 424.
- Hamilton, W. J., Jr., article by, 97.
- Hamlin, H. E., article by, 294.
- Health Habits of University Women, 286.
- Hefner, R. A., article by, 265.
- Heil, Louis M., article by, 298.
- Henderson, Nellie F., article by, 44.
- Heronries of Northern Ohio, 270.
- Hine, James Stewart, Obituary of, 510.
- Histology of the Intestinal Tract of Two Minnows, *Notemigonus chrysoleucas* and *Notropis atherinoides*, 268.
- Hive Temperatures for Each Hour of a Day, 181.
- Holmes County, Glaciation of, 429.
- Hypnales, Ohio, 44.
- Hypnosis on Long Delayed Recall, Effect of, 425.
- Hypsometric Map versus the Projected Profile Method in Depicting and Determining Erosion Surfaces, 285.
- Hypsometric Map versus the Projected Profile Method in Portraying and Determining Erosion Surfaces, 189.
- Industrial Adjustments in the Miami Valley, 283.
- Iris of Ohio and Bordering Territory, The Native, 29.
- Kendall, Robert, article by, 276.
- Kendeigh, S. Charles, article by, 261.
- Kennedy, C. H., article by, 510.
- Kroc, Robert L., article by, 288.
- Kostir, W. J., article by, 260.
- Kraatz, Walter C., article by, 475.
- Kramer, Paul J., article by, 273.
- Laboratory Studies of Living Birds, 260.
- Lagerhimia citrifformis*, 461.  
*citrifformis* var. *paucispina*, 462.  
*longiseta* var. *major*, 462.  
*wratilawiensis*, 462.
- Landacre, F. L., article by, 335.
- Lane, George H., article by, 165.
- Lecture Demonstration and Individual Laboratory Methods of Introducing College Students to First Year Chemistry, 427.

- Lehman, Harvey C., article by, 421.  
 Lernaecidæ, 454.  
 Lerneapodidæ, 454.  
 Limestone Caverns, Origin of, 276.  
 Limnological Survey of the Hocking River, 267.  
 Littlefield, E. W., article by, 416.  
 Lord, Richard C., article by, 276.  
 Loss in Dry Matter in Sweet Clover Roots from Fall to Spring, 274.  
 Lowry, Philip Rosemond, Obituary, 191.  
 Ludwig, William B., article by, 267.  
 Lumley, Frederick Hillis, article by, 419.
- Mallophaga from Ohio Birds, 505.  
 Marsoniella elegans, 458.  
 Mathews, A. A. L., article by, 279.  
 Mathews, C. O., article by, 420.  
 Mathewson, Stanley B., article by, 425.  
 McNelly, W. C., article by, 285.  
 Mental Status of Reformatory Women, 422.  
 Meracantha contracta Beauv., The Alimentary Canal of, 143.  
 Merismopedia convoluta, 457.  
 Micractinium erienense, 460.  
   pusillum var. longisetum, 460.  
 Micractinium pusillum, 460.  
 Micromoving Pictures of the Circulation in Living Bird Embryos, 260.  
 Miller, Warren C., articles by, 143, 266.  
 Mitchell, Robert H., articles by, 281, 501.  
 Morphology of the Anterior Sympathetic Nervous System of Lumbricus terrestris, 262.  
 Moseley, E. L., article by, 270.  
 Mosses, Ohio, 44.
- Neiswander, B. E., article by, 289.  
 Nelson, B. B., article by, 419.  
 Nesting Success of a Song Sparrow Population in 1930, 261.  
 Net-Plankton Survey, 475.  
 New Crustacean of the Family Aglaspidae from the Upper Mississippi Valley, 127.  
 Nice, Margaret Morse, article by, 261.  
 Notropis volucellus wickliffi, 468.  
 Notropis volucellus wickliffi n. sub. sp., 470.
- Obituaries, 510.  
 Objective Study of Student and Faculty Attitudes Toward Academic Honesty, 420.  
 Ohio Vascular Plants for 1930, Additions to the Catalog of, 299.  
 Ohio Mosses, Hypnales, 44.  
 Ohmann, O. A., article by, 298.  
 Oligochaete New to America, A New, 264.
- Oocystis eremosphaeria, 459.  
 Orogenic Deformation Continuous or Discontinuous for the Earth as a Whole, 282.  
 Osborn, Herbert, articles by, 191, 514.  
   Book Reviews, 180, 192.
- Paleobotany in Ohio, Status of, 281.  
 Paragenetic Relations of Galena-Sphalerite, 278.  
 Parasites of Buckeye Lake Fish, 263.  
 Parasitic Copepods, 453.  
 Parks, Skinning our, 269.  
 Passalus cornutus, Observations on the Habits of, 266.  
 Patrick, James R., article by, 419.  
 Payne, V. F., articles by, 255, 427.  
 Phototropic Responses of Drosophila hydei, Report on, 265.  
 Piersel, W. G., article by, 425.  
 Plankton Algæ from Lake Erie, 455.  
 Plant Taxonomy, X, Principles of, 77.  
 Poisonous Plants Indigenous to Indiana, 270.  
 Pollen Analysis of Bacon's Swamp at Indianapolis Evidence of Two Dry Climates in Post-Wisconsin Time, 272.  
 Pollen Analysis of the East McCulloch Peat Bed, 165.  
 Presidential Address, 243.  
 Price, John W., article by, 268.  
 Proceedings, Forty-first Annual Meeting, Ohio Academy of Science, 193.
- Rating Scales in Industry, 421.  
 Regulation of Body Temperature in Birds, 261.  
 Remmers, H. H., article by, 418.  
 Reports, 223-238.  
 Report on a New Diagnostic Technique for Studying Social and Emotional Adjustment, 298.  
 Respiratory Apparatus of Parajulus impressus Say, 265.  
 Rhythm and Reverie on the Machine Worker, Effect of, 425.  
 Roach, Lee Stewart, article by, 267.  
 Rogers, C. G., articles by, 262, 288.  
 Ross, C. C., article by, 427.
- Scenedesmus bijuga, 464.  
 Schaefer, Paul Everett, article by, 406.  
 Schaffner, John H., articles by, 1, 77, 299, 346.  
 Schmidt, Leon H., article by, 295.  
 Scientists and Church Membership, 421.  
 Scioto Marshes of Ohio: A Study in the Geography of Onion Culture, 17.  
 Scott, T. C., article by, 419.  
 Sears, Paul B., article by, 272.  
 Sectioning Chamber, A, 118.  
 Selbert, Norma, article by, 286.

- Selenastrum bibraianum* var. *gracile*, 463.  
 Sex-Character Education Through Pets, 295.  
 Sharp, Henry S., article by, 283.  
 Silicosis of Ohio Industries: A Preliminary Report, 289.  
 Smith, Ernest Rice, article by, 276.  
 Spencer, Warren P., article by, 264.  
 Stalnaker, John M., article by, 425.  
 Stewart, Grace A., article by, 275.  
 Stratigraphy of the Central Wasatch Mountains, Pre-Mesozoic, 279.  
 Stupka, Arthur, article by, 263.  
 Suggestibility as Influenced by the Form of the Question, 418.  
 Summer Rainfall of 1930: A Relative Representation, 284.  
 Surrarer, Thomas, article by, 268.  
 Swinnerton, A. C., articles by, 276, 284.  
  
*Tanaos cavolinii* Milne-Edwards, 264.  
 Tashiro, Shiro, article by, 295.  
 Temperature Abnormalities in Indiana and Kentucky Higs, 276.  
 Termite Problem, Modern Buildings and the, 177.  
*Tetrastrum heterocanthum*, 464.  
 Thomas, Edward S., article by, 265.  
  
 Tiffany, L. H., article by, 271.  
 Tiffany and Ahlstrom, article by, 455.  
 Trautman, M. B., article by, 468.  
*Treubaria varia*, 459.  
 Tuck, Ralph, article by, 278.  
  
 Uhrbrock, Richard Stephen, article by, 421.  
  
 Van Cleef, Eugene, article by, 277.  
 Variations in Muscular Efficiency, 285.  
 Varvel, Carl Dudley, article by, 17.  
 Ver Steeg, Karl, article by, 189, 277, 285, 368.  
 Vinal, William G., article by, 295.  
  
 Waller, A. E., article by, 29.  
 White, Geo. W., article by, 429.  
 Wiebe, A. H., article by, 120.  
 Wilde, Walter S., article by, 265.  
 Willard, C. J., articles by, 272, 274.  
 Williams, Stephen R., articles by, 115, 118, 264.  
 Witty, Paul A., article by, 421.  
 Wolford, J. J., article by, 274.  
 Wood, C. C., article by, 423.  
 Wright, A. J., article by, 283.  
 Wright, Frank J., article by, 278.