

tanical material thus secured to various institutions, authentically named with reference to modern nomenclature, and at the same time correlated, whenever possible, with Rumpf's figures and descriptions. It is felt that this particular piece of taxonomic research is one of the very greatest importance and the material we hope to secure should enable botanists generally very definitely to interpret and delimit many of the now doubtful species that have been proposed by citation of Rumpf's figures.

It is hoped that in case we succeed in solving some of the taxonomic problems which are dependent on a correct interpretation of species based on Rumpf's work, that our success may stimulate some other botanist to do for Rheede what we hope to do for Rumpf; that is, to collect and distribute a set of plants from the Malabar coast in India that shall represent those species figured by Rheede tot Draakenstein in his "Hortus Malabaricus," I.-XII., 1678-1703, a work of as great or greater importance than that of Rumpf in interpreting various Linnæan and other species.

ELMER D. MERRILL

BUREAU OF SCIENCE,
MANILA, P. I.

MARINE BIOLOGICAL LABORATORY INVESTIGATORS 1913

ZOOLOGY

Independent Investigators

- Allee, W. C., Instructor in Zoology, Williams College.
- Baitsell, George A., Graduate Student, Yale University.
- Beckwith, Cora J., Instructor in Biology, Vassar College.
- Binford, Raymond, Professor of Biology, Guilford College.
- Boring, Alice M., Associate Professor of Zoology, University of Maine.
- Breitenbecker, J. K., Instructor in Biology, Western Reserve University.
- Browne, Ethel N., Dana Hall, Wellesley College, Instructor in Biology.
- Budington, Robert A., Associate Professor of Zoology, Oberlin College.
- Bullock, F. D., Associate in Cancer Research, Columbia University.
- Calkins, Gary N., Professor of Protozoology, Columbia University.
- Chambers, Robert, Assistant Professor of Histology and Comparative Anatomy, University of Cincinnati.
- Child, C. M., Associate Professor of Zoology, University of Chicago.
- Clapp, Cornelia M., Professor of Zoology, Mount Holyoke College.
- Conklin, E. G., Professor of Biology, Princeton University.
- Crampton, H. E., Professor of Zoology, Barnard College, Columbia University.
- Drew, Gilman A., Assistant Director, Marine Biological Laboratory.
- Edwards, Dayton J., Tutor in Physiology, College of the City of New York.
- Glaser, O. C., Junior Professor of Zoology, University of Michigan.
- Goldfarb, A. J., Instructor in Zoology, College of the City of New York.
- Grave, Caswell, Professor of Zoology, Johns Hopkins University.
- Grave, B. H., Professor of Biology, Knox College, Galesburg, Ill.
- Gregory, Louise H., Instructor in Zoology, Barnard College.
- Harvey, E. N., Instructor in Physiology, Princeton University.
- Hegner, R. W., Assistant Professor of Zoology, University of Michigan.
- Hogue, Mary J., Instructor in Zoology, Mount Holyoke College.
- Hyde, R. R., Assistant Professor of Physiology and Zoology, Indiana State Normal School.
- Jackson, Robert T., Professor of Paleontology, Harvard University.
- Just, E. E., Professor of Zoology, Howard University.
- Knower, H. McE., Professor of Anatomy, University of Cincinnati.
- Lefevre, George, Professor of Zoology, University of Missouri.
- Lillie, Frank R., Professor of Embryology, University of Chicago.
- Lund, E. J., Adam T. Bruce Fellow, Johns Hopkins University.
- McClung, C. E., Professor of Zoology, University of Pennsylvania.
- McGregor, J. H., Professor of Zoology, Columbia University.
- Mall, F. P., Professor of Anatomy, Johns Hopkins University.

- Malone, E. F., Assistant Professor of Anatomy, University of Cincinnati.
- Morgan, T. H., Professor of Experimental Zoology, Columbia University.
- Morrill, C. V., Instructor in Anatomy, New York University.
- Morse, Edward S., Director, Peabody Museum, Salem, Mass.
- Newman, H. H., Associate Professor of Zoology, University of Chicago.
- Painter, T. S., Instructor in Zoology, Roanoke College.
- Pappenheimer, A. M., Associate in Pathology, Columbia University.
- Parmenter, C. S., Vice-president and Professor of Zoology, Baker University, Baldwin, Kansas.
- Paton, Stewart, Lecturer in Biology, Princeton University.
- Patterson, J. T., Professor of Zoology, University of Texas.
- Reinke, E. E., Fellow in Zoology, Princeton University.
- Robertson, W. R. B., Assistant Professor of Zoology, University of Kansas.
- Shorey, Marian L., Professor of Biology, Milwaukee-Downer College.
- Shull, A. Franklin, Assistant Professor of Zoology, University of Michigan.
- Spaeth, R. A., Research Student, Harvard University.
- Spaulding, E. G., Assistant Professor of Philosophy, Princeton University.
- Stockard, C. R., Professor of Anatomy, Cornell Medical College.
- Strong, O. S., Instructor in Anatomy, Columbia University.
- Strong, R. M., Instructor in Zoology, University of Chicago.
- Thompson, Caroline B., Associate Professor of Zoology, Wellesley College.
- Treadwell, A. L., Professor of Biology, Vassar College.
- Van Cleave, H. N., Instructor in Zoology, University of Illinois.
- Wilson, E. B., Professor of Zoology, Columbia University.
- Woodruff, L. L., Assistant Professor of Biology, Yale University.
- Dexter, John S., Fellow in Zoology, Columbia University.
- Faust, E. C., Research Assistant, University of Illinois.
- Fish, J. Burton, Graduate Student, Columbia University.
- Glaser, R. W., Bussey Institution, Forest Hills, Boston, Mass.
- Goodrich, H. B., Assistant in Zoology, Columbia University.
- Hayden, Margaret A., Instructor in Biology, Carnegie Institute of Technology.
- Heilbrunn, L. V., Laboratory Assistant in Zoology, University of Chicago.
- Hoge, Mildred A., Graduate Student, Columbia University.
- Isaacs, Raphael, Assistant in Zoology and Embryology, University of Cincinnati.
- Linkins, R. H., Assistant in Zoology, University of Illinois.
- Lynch, Clara J., Instructor in Zoology, Smith College.
- MacDowell, E. C., Graduate Student, Harvard University.
- Morris, Margaret, 53 Edgehill Road, New Haven, Conn.
- Packard, Charles, Assistant in Zoology, Columbia University.
- Shumway, Waldo, University Scholar in Zoology, Columbia University.
- Stark, Mary B., Graduate Student, Columbia University.
- Sturtevant, A. H., Graduate Student, Columbia University.
- Wardwell, E. H., Assistant in Biology, Princeton University.
- Wheeler, Isabel, 18 the Hattersley, Toledo, Ohio.

PHYSIOLOGY

Independent Investigators

- Baneroft, F. W., Associate Member in Department of Experimental Biology, Rockefeller Institute for Medical Research.
- Bradley, H. C., Assistant Professor of Physiological Chemistry, University of Wisconsin.
- Donaldson, H. H., Wistar Institute of Anatomy and Biology.
- Ewald, W. F., Fellow, Rockefeller Institute for Medical Research.
- Garrey, W. E., Associate Professor of Physiology, Washington University.
- Hyde, Ida H., Professor of Physiology, University of Kansas.
- Bridges, Calvin B., Graduate Student, Columbia University.
- Carver, Gail L., Professor of Biology, Mercer University.

Kite, G. L., Assistant in Physiological Chemistry, University of Chicago.

Knowlton, F. P., Professor of Physiology, Syracuse University.

Lillie, R. S., Assistant Professor of Experimental Zoology, University of Pennsylvania.

Loeb, Jacques, Head of Department of Experimental Biology, Rockefeller Institute for Medical Research.

Mathews, A. P., Professor of Physiological Chemistry, University of Chicago.

Meigs, E. B., Wistar Institute of Anatomy and Biology.

Moore, A. H., Associate Professor of Physiology, Bryn Mawr, College.

Morse, Max W., Trinity College, Hartford, Conn.

Tashiro, Shiro, Associate in Physiology, University of Chicago.

Wasteneys, Hardolph, Associate in Experimental Biology, Rockefeller Institute for Medical Research.

Wherry, W. B., Associate Professor of Bacteriology, University of Cincinnati.

Beginning Investigators

Adams, H. S., Fellow in Chemistry, University of Chicago.

Cattell, McKeen, Student, Columbia University.

Gould, H. N., Fellow in Biology, Princeton University.

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Lloyd, Dorothy J., 16 Ampton Road, Edghaston, Birmingham, England.

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Stringer, Caroline E., Head of Biology Department, Omaha High School.

BOTANY

Independent

Duggar, B. M., Research Professor of Plant Physiology, Washington University.

Garber, John F., Head of Botany Department, Yeatman High School, St. Louis, Mo.

Hibbard, Rufus P., Instructor in Plant Physiology, Michigan Agricultural College.

Lewis, I. F., Assistant Professor of Botany, University of Wisconsin.

Lyman, George R., Assistant Professor of Botany, Dartmouth College.

Moore, George T., Director, Missouri Botanical Gardens.

Nichols, Susan P., Associate Professor of Botany, Oberlin College.

Osterhout, W. J. V., Professor of Botany, Harvard University.

Snow, Laetitia M., Associate Professor of Botany, Wellesley College.

Stomps, Theodor J., Professor of Cytology, University of Amsterdam.

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Beginning Investigators

Colley, R. H., Instructor in Biology, Dartmouth College.

Curtis, Otis F., Instructor in Botany, Cornell University.

Davis, A. R., Lackland Research Fellow, Washington University.

Foster, Goodwin L., Graduate Student, Dartmouth College.

Hopping, Aleita, Tottenville, Staten Island, New York.

Robbins, W. J., Instructor in Plant Physiology, Cornell University.

Roberts, Edith A., Instructor in Botany, Mount Holyoke College.

THE MICROORGANISM CAUSING EPIDEMIC POLIOMYELITIS¹

FROM the facts presented it follows that by employing a specially devised method there has been cultivated from the central nervous tissues of human beings and monkeys the subjects of epidemic poliomyelitis a peculiar minute organism that has been caused to reproduce the symptoms and lesions of experimental poliomyelitis. The microorganism consists of globoid bodies measuring from 0.15 to 0.3 of a micron in diameter, and arranged in pairs, chains and masses, according to the conditions of growth and multiplication. The chain formation takes place in a fluid medium, the other groupings in both solid and fluid media. Within the tissues of infected human beings and animals the chains do not appear.

No statement is ventured at present as to the place among living things to which the

¹Concluding part of a paper by Dr. Simon Flexner and Dr. Hideyo Noguchi published in the *Journal of Experimental Medicine* for October.