
THE BOTANIC JOURNAL CLUB OF THE OHIO STATE UNIVERSITY^{1, 2}

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ABSTRACT

A small but important group of early (1899) students of biology formed a club called the Ohio Botanic Journal Club. Some of these persons became well known in later years. Their early work and aspirations are noted in this paper.

When Dr. Lois Lampe became secretary of the Biology Club she found herself custodian, among other items, of a hardbound blank book. The label on the cover reads; "Composition Book belonging to", and is scratched with ink. This transformed it into common non-individual property belonging to a group. Also in ink on the label in a well-rounded familiar hand appearing on numerous herbarium labels are the words "Botanic Journal Club." Most of the pages inside are blank still. The blank book was eventually put with uncataloged parcels in the Botany and Zoology Library. According to the librarian's decision, it is not to be cataloged. Its scientific information is not vast. Yet, as it lies before me, it is a small treasure worthy of a hail and farewell before definite consignment to dust or to the limbo of suspension in unrecognitory storage. Its records show only six meetings of the Club. The first of these was held in November, 1899.

The establishing of the Botany Department as a major scientific group on the campus extended only 6 or 7 years previously. Earlier in the history of The Ohio State University, botany, along with horticulture and forestry, existed as combination subjects in the study of plants and all three were offered under the direction of Professor Wm. R. Lazenby. With the arrival of Wm. Ashbrook Kellerman, a Department of Botany was founded in January, 1892. Classes and a curriculum attracting qualified students soon followed. A building was dedicated to its study.

¹Paper #690 from the Department of Botany and Plant Pathology.

²Manuscript received August 13, 1963.

The old Botany Building, on a site occupied at present by the Faculty Club, stood above the center of Campus Hollow overlooking Mirror Lake. The building itself was a strange little architectural mischance somewhat between University Hall with its towers and a small 3-room brick residence to which had been added a small greenhouse. The roof leaked. Storage space was inadequate for the growing herbarium. Classroom facilities were meagre. The building was eventually torn down.

Today there is a living record marking the site of the building. On the east side of the Faculty Club, there is a good sized persimmon tree carrying only the male sex, which was planted as a young seedling. At the foot of the slope to the south are a huge Mississippi hackberry and a rare and uncertainly identified Chinese pear. Across South Oval Drive at the head of a walk leading down to the famous Spring are an Ohio Buckeye tree and a Horse-chestnut tree. They are planted side by side, where their differences may be readily contrasted by the uninitiated. To the west of the Club are a large mossy cup oak and an English elm, the largest one on the campus. All of these once young, now mature trees mark an eager teacher expounding his subject. The proximity of these trees to the then center of botanic intelligence advertises good will and pride in the service to be offered to the entire campus community. The Hollow, the Spring, the Lake, the specimen trees of local and around-the-world-interest, all silently proclaimed the extent and variability of the laboratory studies going on within the building. To the east, in Orton Hall, a similar silent proclamation is visible in the layering of building stones in proper stratigraphic sequence as the walls rise. Inside, Dr. Edward Orton, Sr. had been carrying the struggle to study the evolutionary facts of the earth's development. Scientists clashed with narrow dogmatism, mistakenly called religion. Scientists and religionists skirmished for truth as they saw it. Evolution became the battle ground involving the professors as nothing since the middle ages had done. Biologists and geologists were the chief proponents of evolution and they became targets for the hatred of otherwise peaceful church members.

In other parts of the campus, teachers and students in anatomy, physiology, physics, chemistry, and classical and modern languages took mild interest in the philosophy and speculation raised by these debates. Darwinian ideas were more for those in the natural sciences to wrangle about and to stir wrath among sectarian conformists. All over Europe the same discussions were going forward, provoking new questions in every branch of learning, not only in biology. To keep abreast of the advances, new journals in many languages were starting publication. Dr. Kellerman's students must keep informed of work in other parts of the world. They must be acquainted with foreign languages. Thus, the answer, in the beginning of a Botanic Journal Club which the Kellermans actively promoted.

Dr. Kellerman had returned from his studies in Germany. He also had visited other countries while abroad and brought back ideas of some European botanists.

Dr. Kellerman stands here at the head of a parade of students visiting German Universities as he had, and in starting the publication of the *Ohio Naturalist*, the forerunner of *The Ohio Journal of Science*. For the Botanic Journal Club, there is not the singleness of purpose and the definite objectivity of naturalists who needed to publish their own writings even more than to review the whole spectrum of the plant sciences. With changes in the personnel of students, the Botanic Journal Club was short lived. On that account, identifying the members as they appear on the list becomes a puzzle not without certain elements of suspense.

As it stands, there are really two lists, one for males and one for females, decently separated by clean white space. There are seven of each sex, probably given in declining seniority. The right hand part of the page is ruled off in col-

umns for the dates of the meetings. Opposite each name are attendance marks. Sometimes absence is indicated by a small "a" in pencil or by a minus sign mostly in ink. If the attendance record is taken seriously, so that a blank also denotes absence it would then appear that Dr. Kellerman is not credited with attendance until the fifth meeting. This is inconsistent with the lengthy notes of the second meeting in which he is the reviewer. His subject is a physiological investigation on cereal rusts compiled by M. A. Carleton from reports in the five principal cereal-producing countries. Only in Australia and the U. S. A. were such studies progressing. Russia, India, and Argentina had none. The paper's title is "Cereal Rusts of the U. S.—a physiological investigation." Since Dr. Kellerman had begun his studies in this mycological area while he was at Manhattan, Kansas, his remarks embody personal investigation as well as the published work of others. Yet there is no distinction between the two sources in the notes of the reporter covering the meeting. The casualness of the Botanic Journal Club is strikingly evident. The reporter leaves much to the imagination.

The names of the members are written in the same handwriting as are the note—Dr. Kellerman, Prof. Schaffner, Mr. Collett, Mr. Griggs, Mr. Luke, Mr. Mockwort, Mr. Morse, Mrs. Kellerman, Mrs. Schaffner, Miss Dufour, Miss Armstrong, Miss Herrick, Miss Weick and Miss Perry. These fourteen must have included the official and the unofficial staff of enthusiastic botanists at the turn of the century at The Ohio State University. Both Mrs. Kellerman and Mrs. Schaffner were authors of scientific papers. Miss Perry apparently served as secretary. It may well be that "Botanic Family" instead of Botanic Journal Club could have been used for the blank book's label. It is the evidence of complete informality that explains the waywardness of the records as well as their sudden termination. Word to suggest what happened is lacking. Since these records are more than sixty years old, a brief resume about each of the members who can be accounted for today, as well as the notes on the papers reviewed seems in order.

Professor Kellerman has been described as a very warm, winning personality. His enthusiasm for new subjects outran his consistent effort to stay with tasks already begun. Along with the zoologists and geologists, he founded the Biological Club, the forerunner of the Ohio Academy of Science. Dr. Kellerman was a frequent contributor to discussion in this group. The first Secretary's Book of this club is catalogued in the Botany and Zoology Library of the University. Dr. Kellerman also founded and published the *Journal of Mycology* and, when the subscriptions were insufficient to keep it running, he paid the printers personally. He was the first teacher and investigator to invite students to study in the tropics. The Trustees of The Ohio State University eventually gave official recognition to these journeys to Guatemala with Ohio State students. There were four excursions between 1902 and 1907. The last journey ended sadly with Dr. Kellerman's death and burial in Zacaba, Guatemala. This concluded an active, zestful life and ended Ohio State's connections with tropical Central America. Remnants of his collections, which were numerous, were partly passed on in recent years to the National Herbarium. Some of them are still at Ohio State. Other universities, notably Harvard and Yale, followed with tropical plant explorations, and also notably the U. S. Department of Agriculture. In 1938 while in Guatemala, I visited Zacaba. I could not find the grave of Dr. Kellerman. Dr. Wilson Popenoe, venerable botanist for the United Fruit Company, also indicated that he had tried unsuccessfully to find the exact location of the grave. The original wooden marker was gone.

Mrs. Kellerman constantly assisted Dr. Kellerman. She was the author of several papers on scientific subjects, but not much more is known of her.

Professor Schaffner became chairman of the Department of Botany, succeeding Dr. Kellerman in 1908 and remaining chairman until 1918 when he was succeeded

by Professor E. N. Transeau. Professor Schaffner's contributions have been noted in a monograph by the present author published by The Ohio Academy of Science in 1941. Mrs. Mabel Brockett Schaffner's work on the embryology of a seed plant is a pioneer work in its field. She also assisted her husband.

Robert Fiske Griggs is the Mr. Griggs of the club's membership. He was born in Columbus, son of the engineer who built the Griggs Reservoir and Griggs Dam so much used for recreation as well as water storage for the city; as is well known, it was unaffected by the 1913 Flood. Robert Griggs attended both Ohio State and Harvard. He explored the Katmai region in Alaska after the volcanic explosion. He was responsible for the government's creation of this area of more than five times the size of Yellowstone Park as a National Monument. He gave the name to part of the area, "Valley of Ten Thousand Smokes," which was studied in 1916 and reported in the *National Geographic* magazine. His several exploring trips in the region were made in 1915-18, 1919, and 1930. Coming back late from one of these trips, he incurred the displeasure of Dr. Transeau and shortly afterward resigned from Ohio State. He became chairman at George Washington University about 1921 and was a highly regarded member of the Washington Academy of Sciences, of other scientific societies, and of several important committees. Later, after retirement in Washington, he became a member of the Department of Biology of the University of Pittsburgh. He died in June, 1962, at the age of 80 years.

The name given in the list as Mr. Mockwort probably refers to Mr. Marquardt. Mr. Max Morese contributed several papers to the *Ohio Naturalist*.

Miss Herrick of the list of members is now the late Mrs. King Thompson of Upper Arlington. Mrs. Thompson most graciously helped me with the names of those in the group she recalled. She suggested that the absence of Karl Kellerman's name from the roster of the Journal Club probably could be explained by his having enrolled at Cornell about that time. Her interest in botanical matters continued until her death in January, 1964. She presented a paper on *Equisetum* according to the notes of the club.

Miss Perry, whose name is last on the list, seems to have acted as reporter, yet she is recorded as attending only three of the meetings. This uncertainty in attendance, when the notes are so complete, is baffling. Who did do the work? Or is the attendance record one that was too insignificant to bother about? Miss Perry became Mrs. Charles W. Foulk. As the wife of the well-known Professor of Chemistry at Ohio State, both she and her husband were interested in the later development of the Department of Botany. Professors Transeau and Foulk were close friends for a long time. Both Miss Perry and Miss Herrick were at one time departmental assistants.

The first recorded meeting was held in November of 1899.

The first paper reviewed was of cytological nature and the reviewer was J. H. Schaffner. It was on the centrosome in spermatazoa and had appeared early in the year in volume 17 of the Berlin Botanic Society. Belajeff (Belajeff, W. *In Ber. d. Deut. Bot. Gesell.* 17: 199-205. pl. 15, 1899) was the author. The discussions of his theory of the importance of the centrosome continued for many years. Professor Schaffner, having recently worked with Coulter, Chamberlain, and Land at the University of Chicago, was about to embark on his own cytokinetic studies. His position on the importance of the centrosome altered before he concluded his work.

Robert Griggs reviewed a paper on willows. His continued interest in the genus *Salix* resulted in important contributions to the knowledge of Ohio willows. At this early date, before the rediscovery of Mendel's work, Griggs discussed hybrids in his review.

The most detailed reports of an evening's discussion is in the paper on cereal rusts reviewed by Dr. Kellerman. It is of significance that a review of this sub-

ject was presented. Perhaps this is to be expected. Kellerman had already spent a number of years studying the cereal rusts in Kansas. His interests in mycology had taken a physiological turn. This trend toward the newer aspects of plant science is noted in a brief remark about Dr. Kellerman made by Dr. David Fairchild in his well-loved book, *The World was my Garden*, where Fairchild expresses gratefulness to Kellerman for arousing in him an appreciation of plant physiological activity. Both M. A. Carleton and A. S. Hitchcock were associates of Dr. Kellerman. Carleton was, by 1896, already indefatigably engaged in cereal inoculation studies and laying the foundation for practical work in immunity and crop protection. The work of Erickson of Sweden on cereal rusts may well have been introduced to America as a result of Dr. Kellerman's studies in Europe several years previously.

In looking over the report of this meeting, the outstanding fact to reach the reader is the breadth and depth of Dr. Kellerman's insight. He apparently impressed on his audience (who I hope received it joyfully) the great changes already in progress in plant study, thus shaping our modern attitude toward research as an inseparable mixture of fundamental and applied knowledge.

Mrs. Kellerman reviewed a paper by F. Brand on *Cladophora*. Again it was physiology that was talked about in the discussion. Apparently both Dr. Kellerman and Mrs. Kellerman read German readily and were concentrating their attention on the more dynamic aspects of plant life. This and another paper by Belajeff which was reviewed by Mr. Collett were both from the German. With the family aspects of the work in progress in the Botany Department at this time, it is possible to think of conversation in several languages taking place in the Old Botany Building. The elder daughter of the Kellermans, Miss Ivy, now Mrs. Reed, was a classical language scholar. Much of her later life was devoted to the development of an international language. Not long ago she offered The Ohio State University a grant to promote inter-lingual communication, her interest in language perhaps dating from the time of the Journal Club.

Miss Dufour, about whom I know nothing more than name, reviewed a French paper dealing with the vegetation of the Island of Lesbos. Mrs. King Thompson, at that time Miss Herrick, presented a paper on *Equisetum*. Miss Perry, later Mrs. Charles Foulk, gave a paper on mushrooms. Mr. Luke had one on *Brassica oleracea*. None of these papers is reviewed in the notes.

Professor Schaffner gave two more papers, Dr. Kellerman and Mrs. Kellerman one more each. Also Dr. Kellerman's remarks on the side are sometimes added. When Mrs. Kellerman presented a paper on algae, the irrepressible Doctor added a note on corn smut as reported to him by Hitchcock; injury to corn plants increased the percentage of infection in the field.

Another lengthy work, that on *Citrus* hybridization by H. J. Webber, whose great work on *Citrus* was already under way, was presented by Mr. Morse. Not yet understood at this time was the complex development of the different embryos capable of forming in a single citrus seed, for this was the decade when "double fertilizations," polyembryony, xenia, and triple fusion were still to be disentangled and the marvelous complexity of seed structure was beginning to be understood and communicated to a surprised world.

There were other items listed, but not treated at length in this blank book. I like to think of the empty pages of the little uncatalogued item as a challenge to our future degree-candidates in botany. It is the spirit of the task that is important.