

MEMOIR
OF
WILLIAM STARLING SULLIVANT.
1803-1873.

BY
A S A G R A Y.

READ BEFORE THE NATIONAL ACADEMY, APRIL 22, 1875.

BIOGRAPHICAL MEMOIR

OF

WILLIAM STARLING SULLIVANT.

WILLIAM STARLING SULLIVANT, LL.D., died at his residence in Columbus, Ohio, on the 30th of April, ultimo. In him we lose the most accomplished bryologist which this country has produced; and it can hardly be said that he leaves behind anywhere a superior.

He was born, January 15, 1803, at the little village of Franklinton, then a frontier settlement in the midst of primitive forest, near the site of the present city of Columbus. His father, a Virginian, and a man of marked character, was appointed by government to survey the lands of that district of the "Northwestern Territory" which became the central part of the now populous State of Ohio; and he early purchased a large tract of land, bordering on the Scioto River, near by, if not including, the locality which was afterward fixed upon for the State capital.

William, his eldest son, in his boyhood, if he endured some of the privations, yet enjoyed the advantages of this frontier life, in the way of physical training and early self-reliance. But he was sent to school in Kentucky; he received the rudiments of his classical education at the Ohio University at Athens, upon the opening of that institution; and was afterward transferred to Yale College, where he was graduated in the year 1823. His plans for studying a profession were frustrated by the death of his father in that year. This required him to occupy himself with the care of the family property, then mainly in lands, mills, etc., and demanding much and varied attention. He became surveyor and practical engineer, and indeed took an active part

in business down to a recent period. Leisure is hardly to be had in a newly settled country, and least of all by those who have possessions. Mr. Sullivant must have reached the age of nearly thirty years, and, having married early,¹ was established in his suburban residence in a rich floral district, before his taste for natural history was at all developed. His youngest brother, Joseph, was already somewhat proficient in botany as well as in conchology and ornithology; and when in some way his own interest in the subject was at length excited, he took it up with characteristic determination to know well whatever he undertook to know at all. He collected and carefully studied the plants of the central part of Ohio, made neat sketches of the minuter parts of many of them, especially of the Grasses and Sedges, entered into communication with the leading botanists of the country, and in 1840 he published "A Catalogue of Plants, Native or Naturalized, in the Vicinity of Columbus, Ohio," pp. 63, to which he added a few pages of valuable notes. His only other direct publication in phænogamous botany is a short article upon three new plants which he had discovered in that district, contributed to the *American Journal of Science and Arts*, in the year 1842. The observations which he continued to make were communicated to his correspondents and friends, the authors of the "Flora of North America," then in progress. As soon as the flowering plants of his district had ceased to afford him novelty, he turned to the Mosses, in which he found abundant scientific occupation, of a kind well suited to his bent for patient and close observation, scrupulous accuracy, and nice discrimination. His first publication in his chosen department, the "Musci Alleghanienses," was accompanied by the specimens themselves of Mosses and Hepaticæ collected in a botanical expedition through the Alleghany Mountains from Maryland to Georgia, in the summer of 1843, the writer of this notice being his companion. The specimens were not only critically determined, but exquisitely prepared and mounted, and with letter-press of great perfection; the whole forming two quarto volumes, which well deserve the

¹ His first wife, Jane Marshall of Kentucky, was a niece of Chief Justice Marshall. She died within a year after marriage.

encomium bestowed by Pritzel in his *Thesaurus*.¹ It was not put on sale, but fifty copies were distributed with a free hand among bryologists and others who would appreciate it.²

In 1846, Mr. Sullivant communicated to the American Academy the first part, and in 1849 the second part, of his "Contributions to the Bryology and Hepaticology of North America," which appeared, one in the third, the other in the fourth volume (new series) of the Academy's *Memoirs*; each with five plates from the author's own admirable drawings. These plates were engraved at his own expense, and were generously given to the Academy.

When the second edition of Gray's "Manual of the Botany of the Northern United States" was in preparation, Mr. Sullivant was asked to contribute to it a compendious account of the Musci and Hepaticæ of the region; which he did, in the space of about one hundred pages, generously adding, at his sole charge, eight copperplates crowded with illustrations of the details of the genera; thus enhancing vastly the value of his friend's work, and laying a foundation for the general study of bryology in the United States, which then and thus began.

So excellent are these illustrations, both in plan and execution, that Schimper, then the leading bryologist of the Old World, and a most competent judge, since he has published hundreds of figures in his "*Bryologia Europæa*," not only adopted the same plan in his *Synopsis of the European Mosses*, but also the very figures themselves (a few of which were, however, originally his own), whenever they would serve his purpose, as was the case with most of them. A separate edition was published of this portion of the *Manual*, under the title of "*The Musci and Hepaticæ of the United States, east of the Mississippi River*" (New York, 1856, imperial octavo), upon thick paper, and with proof-impressions directly from the copperplates. This exquisite

¹ "Huic splendidæ impressæ 292 specierum enumerationi accedit elegantissima specimen omnium exsiccatorum collectio."

² A tribute is justly due to the memory of the second Mrs. (Eliza G. Wheeler) Sullivant, a lady of rare accomplishments, and, not least, a zealous and acute bryologist, her husband's efficient associate in all his scientific work until her death, of cholera, in 1850 or 1851. Her botanical services are commemorated in *Hypnum Sullivantiae* of Schimper, a new Moss of Ohio.

volume was placed on sale at far less than its cost, and copies are now of great rarity and value. It was with regret that the author of the Manual omitted this cryptogamic portion from the ensuing editions, and only with the understanding that a separate "Species Muscorum," or Manual for the Mosses of the whole United States, should replace it. This most needful work Mr. Sullivant was just about to prepare for the press.

About the same time that Mr. Sullivant thus gave to American students a text-book for our Mosses, he provided an unequalled series of named specimens for illustrating them. The ample stores which he had collected or acquired, supplemented by those collected by M. Lesquereux (who was associated with him from the year 1848) in a journey through the mountainous parts of the Southern States under his auspices, after critical determination were divided into fifty sets, each of about three hundred and sixty species or varieties, with printed tickets, title, index, etc., and all, except a few copies for gratuitous distribution, were generously made over, to be sold at less than cost, for his esteemed associate's benefit, and, still more, that of the botanists and institutions who could thus acquire them. The title of this classical work and collection is, "Musci Boreali Americani quorum specimina exsiccati ediderunt W. S. Sullivant et L. Lesquereux; 1856." Naturally enough the edition was immediately taken up.

In 1865 it was followed by a new one, or, rather, a new work, of between five and six hundred numbers, many of them Californian species, the first-fruits of Dr. Bolander's researches in that country. The sets of this unequalled collection were disposed of with the same unequalled liberality, and with the sole view of advancing the knowledge of his favorite science. This second edition being exhausted, he recently and in the same spirit aided his friend Mr. Austin, both in the study and in the publication of his extensive "Musci Appalachiani."

To complete here the account of Mr. Sullivant's bryological labors illustrated by "exsiccati," we may mention his "Musci Cubenses," named, and the new species described in 1861, from Charles Wright's earlier collections in Cuba, and distributed in sets by the collector. His researches upon later and more extensive collections by Mr. Wright lie in the form of notes and pencil sketches, in which many new species are indicated. The

same may be said of an earlier still unpublished collection, made by Fendler in Venezuela. Another collection, of great extent and interest, which was long ago elaborately prepared for publication, and illustrated by very many exquisite drawings, rests in his portfolios, through delays over which Mr. Sullivant had no control; namely, the Bryology of Rodgers's U. S. North Pacific Exploring Expedition, of which Charles Wright was botanist. Brief characters of the principal new species were, however, duly published in this as in other departments of the botany of that expedition. It is much to be regretted that the drawings which illustrate them have not yet been engraved and given to the scientific world.

This has fortunately been done in the case of the South Pacific Exploring Expedition under Commodore Wilkes. For, although the volume containing the Mosses has not even yet (May, 1873) been issued by government, Mr. Sullivant's portion of it was published in a separate edition in the year 1859. It forms a sumptuous imperial folio, the letter-press having been made up into large pages, and printed on paper which matches the plates, twenty-six in number.

One volume of the Pacific Railroad Reports, *i. e.*, the fourth, contains a paper by Mr. Sullivant, being his account of the Mosses collected in Whipple's Exploration. It consists of only a dozen pages of letter-press, but is illustrated by ten admirable plates of new species.

The "Icones Muscorum," however, is Mr. Sullivant's crowning work. It consists, as the title indicates, of "Figures and Descriptions of most of those Mosses peculiar to Eastern North America which have not been heretofore figured," and forms an imperial octavo volume, with one hundred and twenty-nine copper-plates, published in 1864. The letter-press and the plates (upon which last alone several thousand dollars and immense pains were expended) are simply exquisite and wholly unrivalled; and the scientific character is acknowledged to be worthy of the setting. Within the last few years, most of the time which Mr. Sullivant could devote to science has been given to the preparation of a second or supplementary volume of the "Icones." The plates, it is understood, are completed, the descriptions partly written out, and the vernal months in which his mortal life closed

were to have been devoted to the printing. The Manual of North American Mosses was speedily to follow.

He was remarkably young for his years, so that the hopes and expectations in which we were indulging seemed reasonable. But in January, not far from his seventieth birthday, he was prostrated by pneumonia, from the consequences of which, after some seeming convalescence, he died upon the last day of April. He leaves a wife, Mrs. Caroline E. (Sutton) Sullivant, children, grandchildren, and great-grandchildren, to inherit a stainless and honored name, and to cherish a noble memory.

In personal appearance and carriage, no less than in all the traits of an unselfish and well-balanced character, Mr. Sullivant was a fine specimen of a man. He had excellent business talents, and was an exemplary citizen; he had a refined and sure taste, and was an accomplished draughtsman. But after having illustrated his earlier productions with his own pencil, he found that valuable time was to be gained by employing a trained artist. He discovered in Mr. A. Schrader a hopeful draughtsman, and he educated him to the work, with what excellent results the plates of the "Icones" and of his other works abundantly show. As an investigator he worked deliberately, slowly indeed and not continuously, but perseveringly. Having chosen his particular department, he gave himself undeviatingly to its advancement. His works have laid such a broad and complete foundation for the study of bryology in this country, and are of such recognized importance everywhere, that they must always be of classical authority; in fact, they are likely to remain for a long time unrivalled. Wherever Mosses are studied, his name will be honorably remembered; in this country it should long be remembered with peculiar gratitude.

In accordance with his wishes, all his bryological books and his exceedingly rich and important collections and preparations of Mosses are to be consigned to the Gray Herbarium of Harvard University, with a view to their safe preservation and long-continued usefulness. The remainder of his botanical library, his choice microscopes, and other collections are bequeathed to the State Scientific and Agricultural College, just established at Columbus, and to the Starling Medical College, founded by his uncle, of which he was himself the Senior Trustee.

WILLIAM STARLING SULLIVANT.

Mr. Sullivan was chosen into the American Academy in the year 1845. He received the honorary degree of Doctor of Laws from Gambier College, in his native State, and was an associate of the principal scientific societies of this country, and of several in Europe. His oldest botanical associates long ago enjoyed the pleasure of bestowing the name of *SULLIVANTIA OHIONIS* upon a very rare and interesting, but modest and neat Saxifrageous plant, which he himself discovered in his native State, on the secluded banks of a tributary of the river which flows by the place where he was born, and where his remains now repose.