

## The Herbarium of Thomas Velley (1748-1806).

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The Liverpool Botanic Garden collection of plants now in the Free Public Museums, Liverpool, includes the Herbarium of Thomas Velley, which contains many specimens of British Flowering Plants collected from various parts of the country, and also some foreign plants, and algae.

Research into the part played by Velley in botanical science of his day shows that he was the friend and correspondent of many eminent botanists of his time, including Dawson Turner, the algologist, and Stackhouse, who refers to Velley in his work *Nereis Britannica*, Sir Thomas Gery Cullum, Sir Richard Relhan, Sir William Watson, and Sir J. E. Smith. The latter named a genus of Australian plants of the family Goodeniaceae, *Velleia*, in recognition of Velley's botanical work.

Velley was born at Chipping Ongar in Essex in 1748, his father being a clergyman there. He was educated at St John's College, Oxford, where in 1766 he matriculated at the age of seventeen, according to Foster's *Alumni Oxonienses*. In 1772 he graduated B.C.L., and, later, in 1787, he became D.C.L.

Velley served in the Oxfordshire Militia, was appointed Major in March 1781, and became Lieutenant-Colonel in January 1799. He remained attached to the Militia until four years before his death, retiring in April 1802.

Very little seems to be known of the legal career of Thomas Velley, or of his private life. He was married and had five children, and one son, Charles, went to Merton College, Oxford, where he matriculated in 1807, at the age of nineteen, but there is no further record of his academic career.

Velley spent the latter part of his life in Bath, but there is no record of his legal career in that city; his name does not appear in the Law Lists of the Bath Directories and Guides. He was, however, held in considerable esteem in Bath for his scholarship, his professional character, and his botanical work. At this period there were many eminent men of learning resident in Bath, including Sir Noah Thomas, who had been Physician-in-Ordinary to George III, and was a friend of Velley's, also Sir Richard Relhan, botanist. There is no doubt that Velley played a prominent part in the intellectual life of Bath, according to his obituary notice in the *Bath Chronicle* of the 12th June, 1806.

Velley was killed in a coaching accident on June 6th, 1806, at Reading. An account of the tragedy is given in the *Bath Chronicle* as follows:—" On Friday night between nine and ten o'clock a double-bodied stage coach stopt at the Castle Inn, Castle Street, Reading; while the coachman was gone in to refresh himself the horses set off without him. Lieutenant-Colonel Velley, late of the Oxfordshire Militia, and long resident in this city, alarmed at his situation, jumped out and fell with the back part of his head so violently on the ground as to occasion a

concussion of the brain; he languished in a state of insensibility until Sunday evening, when he expired."

A similar account is given in the *Beading Mercury* and *Oxford Gazette*, and Sir J. E. Smith, in *English Botany*, refers to "this untimely end of Colonel Velley due to the carelessness of the coach driver, which is all too common these days," although, according to the leading papers, no blame was attached to the coach driver, and a verdict of accidental death was returned.

Velley was buried in the Parish Church of St Mary the Virgin, Reading, where the Register of the Church contains the brief statement, "June 13th, 1806, Thomas Velley, Esq." His gravestone is a slab lying in the choir, inscribed:—

Here lieth the body of  
Thomas Velley, Esq.,  
of Bath, in the county of Somerset,  
formerly Lieutenant-Colonel  
of the Oxfordshire Militia,  
who departed this life  
the 7th of June, A.D. 1806  
aged 58 years.

The following eulogy in the *Bath Chronicle* gives some idea of the esteem in which Velley was held there :—"In the death of this gentleman, society has to deplore the loss of an accomplished scholar, an acute naturalist, an active professional character, and a man exemplary in the performance of all his duties of private life. To his social worth, the sorrows of a large circle of acquaintances, friends, and relations will bear ample testimony, and his public are already in possession of such proofs of his botanical skill and classical requirements as ensure him the possession of scientific reputation and literary fame."

The *Reading Mercury* and *Oxford Gazette* of June 16th, 1806, refers to his "urbanity of manners and friendly and benevolent disposition."

#### VELLEY'S BOTANICAL WORKS.

Velley's chief botanical work seems to have been on the Marine Algae, which he collected mainly from the South coast, Essex, and the Isle of Wight, and his publications deal with this group of plants, the chief work being *Coloured Figures of Marine Plants found on the Southern coast of England*, published at Bath in 1795. To this work he prefixed "An Inquiry into the mode of Propagation peculiar to Sea Plants." The complete copy of this book contains five coloured plates, including one of *Arabis stricta* Huds. as found growing on St Vincent's Rock, Bristol, with descriptions in English and Latin of the algae. In 1 this work is the first figure and description of *Conferva fucicola*, which Velley found at Weymouth growing on *Ficus nodosus* L. and *Fucus vesiculosus* L. From Velley's careful and detailed description, and from the two coloured illustrations showing the mode of growth and structure of this alga it is evident that it is the species known to-day as *Elachistea fucicola* Fries.

A copy of this book was sent to the Linnean Society on publication, Velley being elected a Fellow of the Linnean Society in 1792, when Sir J. E. Smith was President.

There is also a copy in the Athenaeum Library, Liverpool, but it is, however, incomplete, there being only three coloured plates. The descriptions in both English and Latin of *Fucus obtenus*, *Fucus purpurascens* and *Fucus concatenus* are given with explanatory notes but the illustrations are missing.

This work is mentioned by Withering in his *Botanical Arrangement of British Plants*, Stackhouse in his *Nereis Britannica*, Dawson Turner in his *Fuci*, Dillwyn in *British Confervae* and Sir J. E. Smith in *English Botany*, with reference to the species figured by Velley.

Velley read several papers before the Linnean Society which are published in the *Transactions of the Society* : " Remarks on the Nature and Propagation of Marine Plants " (read May 7th, 1799), *Trans. Linn. Soc.*, Vol. v, 1800, pp. 145-159, 274. " Descriptions of *Conferva umbilicata* " (read July 2nd, 1799), *Trans. Linn. Soc.*, Vol. v, 1800, pp. 169-170. *Conferva umbilicata* was sent to Velley by Governor Hunter from New South Wales. A further publication of Velley's was : " Disquisitio de plantarum maritimarum propagatione," *Romer. Archiv. Botan.*, 1798, Heft 3, pp. 108-118.

After Velley's tragic death, his widow left Portland Place, Bath, where they had resided so long, to take up residence in Weymouth. Before leaving Bath, she wished to sell Velley's Herbarium, and through the agency of Dr Knapp, who was a friend of Velley's, it was offered to the Linnean Society for a hundred and fifty guineas in 1809. According to Dr Knapp in his letter to Sir J. E. Smith, offering the Herbarium to the Linnean Society, it consisted of " British Phanerogamic plants preserved by that tedious but most effectual process of ironing." This method of Velley's is given in full detail in Withering's *Arrangement of British Plants*, where Velley states " that it is superior to the more usual method of sand drying, particularly with regard to the retention of colour of the specimens." According to Knapp there were about seven hundred and forty specimens of Phanerogamic plants, " but the *ne plus ultra* of perfection are his Marine Plants." " There are about five hundred and ninety specimens placed down in the most exquisite manner with much manuscript observation—the minuter parts of fructification in several drawn out, and coloured by the side of the specimen—done by a Bath artist under the inspection of Mr Velley—the whole bound up in volumes Russia." In addition there were about three hundred specimens of marine plants unbound and not arranged. Many of these were the result of many days of patient work in arranging and pressing. There was also a large herbarium of specimens of foreign plants which previously belonged to Sir Noah Thomas, which includes plants from French Guiana, Botany Bay, and also many Lichens, Fungi, and Liverworts,

#### VELLEY'S HERBARIUM FOR LIVERPOOL.

The Linnean Society, however, did not avail itself of this offer of Velley's Herbarium for a hundred and fifty guineas, and later, in 1810, the Herbarium was acquired for the same sum by the Liverpool Botanic Gardens Committee, through the generosity and activity of Sir William Roscoe.

The Herbarium, after careful packing under the supervision of Mrs Velley, was dispatched to Mr John Shepherd, the Curator of the Liverpool Botanic Gardens, by Cratwell's London Waggon, in August 1810. The Herbarium, which was housed in a large cabinet, came to Liverpool via London from Bath, as by 'that route there was only one change of waggon in London, whereas by the alternative route by Bristol and

Birmingham there were several changes and the risk of considerable delay and housing in damp warehouses, which thought caused Mrs Velley great concern. However, the Herbarium reached Liverpool without mishap in splendid condition.

In 1909, the large Herbarium collections of the Botanic Gardens were transferred to the Liverpool. Museums, and with them came the Velley Herbarium.

All the British plants in the Velley Herbarium are beautifully mounted, often with dissections of the floral parts to show the arrangement, as can be seen in Plate I, fig. (a) of *Cardamine pratensis* L., where, as is always the case in Velley's mounting, the specimen is arranged to show the typical habit of the plant. The majority of the specimens are accompanied by critical manuscript notes in Velley's fine handwriting.

Hall in the *Flora of Liverpool* refers to the Herbarium of Colonel Velley, to which he had access, through the kindness of John Shepherd, when compiling his flora, and he states " I have availed myself of such of Colonel Velley's notes as I could prefix to the plants which occur about Liverpool," and he suggests that Velley's notes would be suited to publication in some Natural History journal.

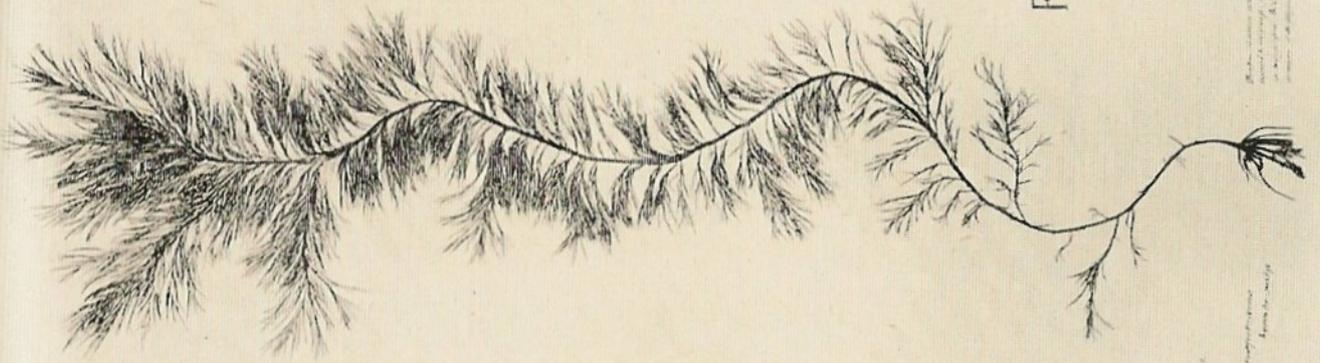
Velley's chief interests seem to have been with the Grasses and algae. There are over a hundred specimens of grasses, mainly British, in the Herbarium, which are carefully mounted and annotated. Some are accompanied by exquisite, meticulously accurate water colour sketches, showing details of the floral structure, and with Latin descriptions. These Velley states he copied from Host's *Gramineae* in Sir Joseph Banks' library. Many of these grasses were sent to Velley by Mr J. Dixon of Croydon or Dr Knapp for critical examination and verification, and some of Velley's specimens are mentioned by Withering in his book, showing that he was held in considerable repute at that time as an authority on the Gramineae. The genus *Bromus* is one which seems to have received considerable attention, there being many specimens of different species of this genus in the Herbarium.

Withering writes of the specimens he received from Velley that "they are the most beautiful he has seen." Among the grasses Velley sent to Withering is *Hordeum maritimum* Huds. or the True Squirrel Grass of the Isle of Thanet, which, according to Velley in Withering, " is common along the Kentish coast from the Isle of Sheppey to the Isle of Thanet." There is a specimen of this grass in Velley's Herbarium dated 1795, from the Isle of Sheppey. Another specimen Withering received from Velley was †*Dactylis stricta* " found by the mouth of the Faversham Creek," and there is also a specimen of this species from the same locality in the Herbarium.

The collection of Marine algae is of considerable value, owing to the excellence of preservation and mounting of the specimens, and the manuscript notes which are dated and signed by Velley. Great care and patience have been taken in the mounting and pressing of the algae, with the result that in all cases the specimens are so arranged that they show the most characteristic method of branching of the species and according to Knapp six to ten days' work was required for the mounting of some of the algae.

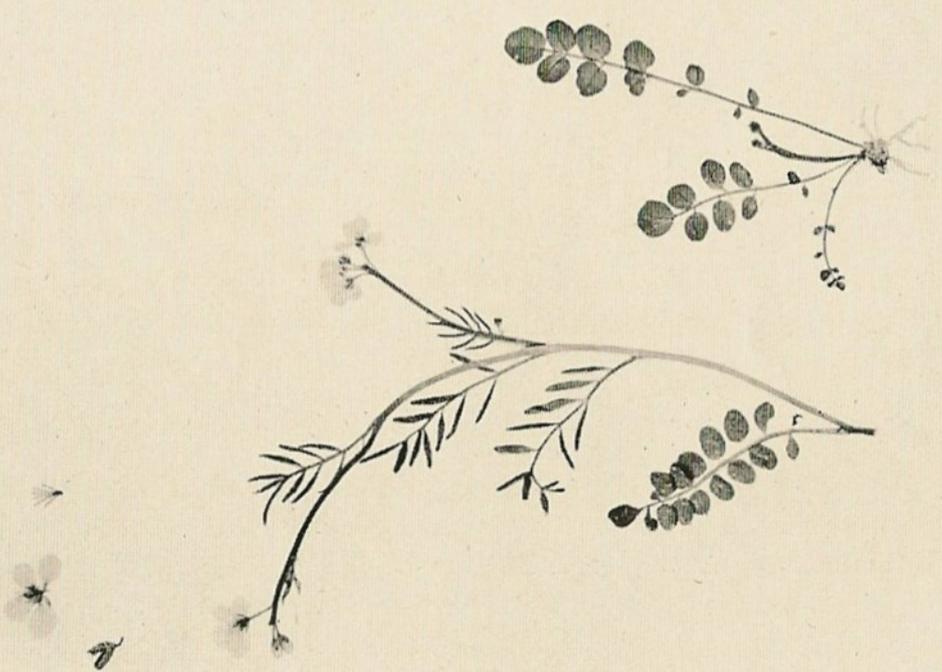
The accompanying water colour drawings to many of the algae, which show microscopic detail of the cell structure, often revealing the nature of the fructification, are beautifully executed and extremely accurate with regard to the arrangement of the branches and the shape and size of the cells, so that they are of great value in the identification of the many unnamed specimens in the Herbarium. Some of these specimens were collected while

FUCUS PURPURACENS  
EX HERB. VELLEY



*Fucus purpuracens*  
Herb. Velley

Ex. Herbarium  
VELLEY.



*Caudexis prostrata* Willd  
Europe, Velley

Velley was stationed in barracks at Sandown in the Isle of Wight; when serving with the Militia in 1800.

Amongst these algae are a number of species found by Velley and not previously described. One of these is *Nemalion elminthoides* Batt. which he found at Portland Bill in 1790. Velley sent a drawing and description of this alga to Withering, who figured it in his book. There is also a specimen of Velley's of this alga in the Herbarium at Kew as well as at Liverpool, where Velley's notes read as follows : " I first discovered this plant on the rocks at the Bill of Portland during the recess of a spring tide. I named it *elminthoides* (*Ulva*) from its resemblance to a worm, and sent a drawing and description to Dr Withering. From a central nerve which passed through it I was induced to consider it a *Fucus*, but from its mucilaginous nature and from the general dispersion of its fructification beneath the surface I became convinced of my error.

Found latter end of June 1790. In a month or more no vestige of it remained" It is of interest to note with regard to changes in the algal flora of these Islands that in 1911, Cotton in the " Clare Island Survey " states that the species, which is not a common one, still grows at Portland Bill in profusion, and refers to Velley's specimen.

In addition Velley sent the following algae to Withering with his own descriptions, which are quoted by that author, for *Ulva verticillata* and *Conferva intertexta*, as well as giving localities for other algae.

Velley placed any new or previously undescribed algae in what he considered the nearest genus and compared them with other similar species in the genus. One of these is *Conferva penicelliformis*, found at Weymouth, 1789, of which there is a very clear water colour sketch, showing the unmistakable structure of a *Polysiphonia*, and the specimen has the habit and branching of such a form as *Polysiphonia variegata* J. G. Agardh, which was not recorded until many years later.

There are many references in the manuscript notes with the algae to " Marine Plants of Poole Harbour," and often the page number and figure is quoted as in the case of *Ulva conosa*, a species Velley discovered and wrote in his notes " A particular account of this will be found in my description of marine plants found at Poole, p. 10," and again in the case of *Conferva verrucosa*, sp. non descripta, p. 13, no. 1, Poole plants. A great many of the algae in the Herbarium were collected at Poole. There is, however, no reference to Marine Plants of Poole in the catalogues of the British Museum, or the Library of the Linnean Society, or at Kew. It is evident that this work was in the course of preparation, and not completed before his tragic death.

Fig. (b) on Plate 1, *Fucus purpurascens*, gives some idea of the mounting and arrangement of Velley's algae to show the typical characteristics of the plant. This illustration was taken from one of the specimens in the Herbarium where there is one which was used for the plate of this species in *Marine Plants on the Southern Coast of England*.

Among the foreign plants in the Herbarium are a number labelled from French Guiana. Some of these are similar to those figured and mentioned in Aublet's *Histoire des Plantes de la Guiane Francoise*, while others of the same name as Velley's are described in that work. All the foreign plants in the Herbarium, with the exception of algae from Australia, sent by Governor Hunter, of New South. Wales, were obtained from Sir Noah Thomas. Sir Noah Thomas was a friend of Velley's who resided in Bath during the latter part of his life, and

attained considerable eminence in the medical profession in his day, being appointed Physician-in-Ordinary to George III, as well as holding many other prominent positions before he died in 1792. It is not known how Sir Noah Thomas came into possession of the French Guiana plants, and other foreign ones, which later became Velley's property. Owing to the fact that Sir Noah Thomas died in 1792, the French Guiana plants are an early collection, and consequently of considerable value.

Velley's best work is unquestionably connected with the algae, and it is unfortunate that so far no copy of *Marine Plants of Poole Harbour* is known to exist. If this had been published during his life-time, there is no doubt from the manuscript notes dealing with the Poole plants that he would have held an even more prominent position among algologists of his day.

The eight folio volumes of algae in the Herbarium bear testimony to his capacity for taking infinite pains, coupled with great patience and powers of critical observation and discrimination. The Velley Herbarium is one of the most valuable possessions of the Liverpool Museums Botanical Department.

#### PUBLISHED WORKS AND PAPERS OF THOMAS VELLELEY.

*Coloured Figures of Marine Plants found on the Southern coast of England*  
Prefixed to this "An inquiry into the mode of Propagation peculiar to Sea Plants."  
Published, Bath, 1795.

"Remarks on the Nature and Propagation of Marine Plants." *Transactions of the Linnean Society*, Vol. 5, 1800, pp. 145-149 and 274.

"Description of *Conferva umbilicata*." *Transactions of the Linnean Society*, Vol. 5, 1800, pp. 169-170.

"Disquisitio de plantarum maritimarum propagatione." *Römer Archly. Botan.*, 1, 1798, Heft. 3, pp. 108-118.

#### SPECIES DISCOVERED BY VELLELEY.

*Conferva fucicola*, now known as *Elachistea fucicola* Fries. First described and figured by Velley in *Coloured Figures of Marine Plants*.

*Ulva elminthoides*, now known as *Nemalion elminthoides* Batt. First described and figured from Velley's drawings and account in Withering's *Botanical Arrangement of Plants*.

*Ulva non descript.* Described and sent to Withering, who termed it *U. verticillata* from description, probably *Halurus equisetifolius* Kütz.

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