Sibthorp's Flora of Oxfordshire 1794
Translation and Digitization Project

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John Sibthorp 1758-1796

We thank the Department of Plant Sciences, University of Oxford, for permission to use this image.

Contents

Introduction

No translation of Sibthorp's *Flora Oxoniensis* (1794) has been previously published, perhaps because the species accounts there are readily accessible as he uses Linnaean plant names, and most of the localities given are extant place names. Here we present translations from the Latin of his Dedication and Preface. The Preface covers his comments on the flora of the county and historical information on previous botanists in Oxford especially those associated with the Oxford Physic Garden, now the Oxford Botanic Garden. Sibthorp's records of vascular plants and stoneworts have been put into a spreadsheet with his notes on habitats, flowering time and localities. In addition, there is information on modern records of species in the areas where they were known to Sibthorp.

Some conclusions on the implications of Sibthorp's work are given, notably a table of species which are no longer to be found in the vice county.

Biographical background

John Sibthorp MD FRS (1758-1796) was the youngest son of Humphrey Sibthorp, second Sherardian Professor of Botany at Oxford, by his second wife Elizabeth Gibbes. He studied at Lincoln School and then took a BA at Lincoln College Oxford in 1777. Wishing to graduate in medicine he went to study at Edinburgh University as the standard of education for this subject was much higher there than in Oxford at that time. During his Easter vacation there he travelled in the highlands of Scotland in search of plants.

In 1781 Sibthorp left for the continent and spent almost a year at the Jardin des Plantes in Paris, studying alongside the botanist Antoine Laurent de Jussieu. After a further ten months in Montpellier with Auguste Broussonet he returned to England where his father was waiting to pass on the professorship to him. Receiving his medical degree in January 1784, he was appointed to the Sherardian Professorship in March of that year.

Sibthorp immediately took up a Radcliffe travelling fellowship and left England once more. Travelling to Germany he remained a while in Göttingen and tried to plan his future endeavours. During 1785 he collected in Germany before moving on to Vienna where he conceived the idea of studying the plants of Greece so as to connect the plant names given in Dioscorides' *De Materia Medica* with the taxa actually growing round the Aegean. Accompanied by the consummate artist Ferdinand Bauer, he travelled to Greece and western Anatolia.

Returning to England in 1787 he took up his professorial duties of teaching for six years. His *Flora Oxoniensis, exhibens plantas in agro Oxoniensi sponte crescentes, secundum systema sexuale distributes* (The Flora of Oxford giving the distribution of plants growing wild in the vicinity of Oxford, named according to the sexual (Linnaean) system), was published in 1794 when he was 36. He left for Greece again, but was already ill, and never returned to Oxford, dying in Bath in 1796. His father died the following year. Publication of John Sibthorp's monumental *Flora Graeca* (1806-1840) was subsidised using the proceeds of his mother's estate, which he left to the University of Oxford to establish the Sibthorpian Chair of Rural Economy (Lee, S. 1992; S. Harris pers. comm.).

Contents of the *Flora Oxoniensis*

The translation below starts with the fulsome Dedication to Sir Joseph Banks. The Preface follows. Then there is an extensive list of works cited, which is not included here as these can be readily accessed on the website "Archive", link listed under Sources**.**

The spreadsheet gives the Latin and English names used by Sibthorp and also the current name, as far as possible, using the fourth edition of the *New Flora of the British Isles* (Stace 2019). Sibthorp usually cites the plant name used by John Ray, and use has been made of the second translation of Ray's *Flora of Cambridgeshire* (Preston and Oswald 2011). But there are still issues of identification of Sibthorp's species which need clarification.

Only vascular plant and stonewort records are digitized here. The bryophyte, lichen, filamentous algal and fungus records are probably less informative as most of the Linnaean taxa have been greatly subdivided since. (However about 63 herbarium specimens of lichen exist and have been identified, (see link listed under Sources)

Volunteers worked from the Internet Archive facsimile of Sibthorp's original (under Sources), to transcribe the data into an Excel spreadsheet with the following column headings:

Species number in Sibthorp
Linnaean name in Sibthorp
English name in Sibthorp
Latin name in Stace 4th edition
English name in Stace 4th edition
Determined by
Page number in Sibthorp
Transcribed by
Habitats if mentioned
Introduced/native status
Flowering month as given by Sibthorp
Woody, perennial, biennial or annual given by symbols H, 4, b, O
Locality as in Sibthorp
Locality modern name
Comments by Sibthorp
Comments
Tetrad grid reference
Checked by

The data were then double checked, and the names interpreted using *The Plant List*, James Smith's *English Flora* (1824) (see Sources) and other authors. Sites were given a probable tetrad (2 km by 2 km) location, and the most recent record since 2000 of each species at this tetrad location was supplied by Ellen Lee at the Thames Valley Records Centre (TVERC) and Jacqueline Wright (pers. comm.)

The Dedication and Preface Translations

Dedication

To Joseph Banks, Baronet, First among Botanists, President of the Royal Society of London, Curator of the British Museum etc. etc. etc.

May I be permitted, most eminent Sir, to recall to your memory and to place, as it were, before your eyes, those fields and glades through which you passed, won over

by the study of botany, already in your early years. It was in these very grounds that you once occupied yourself as a pupil of our University and laid the foundations of that reputation in which you now stand as one before all; do not therefore disdain to look with kindly countenance upon my labours. Deeming it shameful to live in ignorance of what are the riches endowed by Nature, be it to your own fatherland or to realms beyond, you first investigated the resources of your homeland, then travelled over Australia and over regions hitherto unknown, indeed as far almost as the Antarctic Pole itself.

[In the words of Virgil[1]] 'So great is the love of flowers'.

It can thus hardly be stated what, and how great, were the achievements you yourself made, or others made following your lead, in extending the boundaries of scientific knowledge. Furthermore, tending in dutiful respect the memory of former botanists now deceased, not very long ago you stewarded to publication the legacies of Kæmpfer and Houston, in such manner as has brought both honour to them and benefit to others. In addition, you preserve in your Museum treasures collected from throughout the whole world, splendours which you never fail to share with students of Nature, and which you positively command to be laid before all for general use.

The Royal Society of London, finally, greets you annually as its President. It is to you therefore that all we who have dedicated ourselves to these studies gladly look as our patron; that we may long continue so to look upon you yet further elevated in fame and honours, this is the prayer of the most devoted among your friends,

John Sibthorp
Translated by Jonathan Katz

Preface

Long ago Cambridge claimed its Flora for itself. Indeed more than a century has elapsed since Ray, easily the foremost botanist of his time, led the way; and he has been successfully followed by celebrated men in our time. However up to now, Oxfordshire, though often trodden by the botanist's foot, as yet has found no-one who would identify its plants by their artistic image and record them by their currently legitimate names. Yet a great multitude of species are found here, thanks to the diversity of landscape and soils.

In the shady beech woods we can find *Monotropa* [Bird's-nest], *Pyrola* [Wintergreen] and *Serapias* [Helleborines], which appear rarely in other regions. Alpines indeed we do not have, as our area is not blessed with mountains. However Shotover Hill, close to Oxford, is not without subalpines. *Selago* [Fir Clubmoss] and *Oreopteris* [Lemon-scented Fern] adorn the northern slopes, and even *Drosera* [Sundew] grows surrounded by soft mossy carpets. Lower down in the peaty fen of Bullingdon Green[2] the sedge beds in summer are bright with flowers of *Pinguicula* [Butterwort] and *Parnassia* [Grass-of-Parnassus] reaching for the sun; among them even the scarcely known creeping *Sium* [Creeping Marshwort] can be found.

The southern part of our county is formed by chalk hills, which the orchids love. The hills give way to valleys; wild *Onobrychis* [Sainfoin] suffuses the slopes with purple, rich food for stock and a delightful spectacle for the human eye. Below the hills the

[1] The Georgics 4 205, However it is bees that so love flowers. Linnaeus took this as a motto in his Philosophy of Botany of 1751.
[2] Probably the area where the Lye Valley SSSI is situated.

arable fields are whitened by *Iberis* [Candy-tuft], and the rich wheat is infested with *Orobanche*[3] [Broomrapes]. In the northern district around Burford *Ophrys* [Orchids] are to be found mimicking different insects; while among them grow *Cineraria* [*Tephroseris* Field Fleawort], *Pulsatilla* [Pasque Flower] and *Astragalus* [Milk-vetch].

The rivers which flow around the University itself abound with two species of *Nymphaea* [Water Lily], *Hydrocharis* [Frogbit], *Sagittaria* [Arrowhead] and *Butomus* [Flowering Rush] all growing densely packed.

Finally under the very walls of the city, rare species meet the eye which however have come from afar and can only dubiously be included as indigenous: e.g. *Hieracium cerinthoides* [Honeywort Hawkweed], *Senecio* [Oxford Ragwort] and *Cymbalaria* [Ivy-leaved Toadflax] which propagate themselves readily and are thus widely dispersed and clothe the waste places and ancient walls in a rich tapestry.

Thus it is that there is such a mass of botanical species worthy of greater attention from the botanists that abound in the Oxford area. Our little book will make this enumeration following the method of Linnaeus. Some genera however follow the example of Thunberg and others, and are designated into classes according to the number of stamens that they show. In the mossy and frondose Cryptogamms, I follow the lead of Hedwig, who, keen-eyed as a hawk,[4] has elucidated an arrangement using the peristome [capsule teeth] to establish new genera. Subdivisions are proposed in the Fungi, especially the Agarics, which allow an easier clarification. I have employed very few synonyms so that this volume does not become more sizeable than convenient. I have always cited Linnaeus and Ray as much as the classical authors who they reference. I refer the reader to works with pictures showing the details of living colour, as by Curtis, Jacquin, Oeder, Bullard and other notable botanists. Such pictures render verbose descriptions less necessary. These books in the greater part are conserved in the richly-endowed Bodleian Library, where the curators are always vigilant for the benefit of the public among their recondite documents.

I have indicated the habitats of the common species and also given the localities of the rare species: moreover I judged it better to omit those I have not seen and have preferred to leave the Reader in doubt than to be found guilty of deceiving in matters too little known. A few species, marked by an asterisk, were, I suspect, thrown out from gardens or planted by hand and therefore not to be counted as indigenous. I have included the time and duration of flowering in Arabic numerals.

But, if I may be permitted to say a few things about myself and my studies, the care of the Oxford Garden – which was entrusted to me when I returned to the bosom of the University from a journey to the Orient, happily concluded, – has given me the opportunity for this Work. First of all of course I took pains to update that Garden, so that our indigenous plants, especially those which were growing in the land neighbouring the University, might each have their own place within our walls. To this end, I surveyed the neighbouring woods, fields and corners, in order that with a short space of time I was confident that either no plants, or - at any rate - few, were missing from the great collection; I began to assign the soil and situation appropriate to each of them, so that plants, now made tame, would spring up happily and unfurl flowers and their fruit.

[3] In Sibthorp's time several of the species of *Orobanche* had not yet been distinguished.
[4] Eyes of a hawk - with the eyes of Lynceus - who was one of the Argonauts, famed for his sharp eye-sight.

Then, as far as concerns foreign plants, I myself enriched the Garden with many brought here from other regions and especially from Greece, of which a very, very large number of species were hitherto unknown; I received others through the generosity of Friends devoted to Botany; nor did the most generous King himself scorn to share with us the resources of his own Garden at Kew, which is most renowned amongst all those that now exist. Furthermore, that same king wished the curatorship of our Garden to have the status of a regius professorship, a thing which would crown my hopes and add honour to the University itself.

Indeed, from its very beginnings, the Oxford Garden has had distinguished and munificent patrons. Nearly a century has elapsed since, in the reign of Charles the First, the noble Earl of Danby its founder, first enclosed the area for this use, and built around it a most substantial wall on which is the dedication to the Glory of God in the highest and to the Honour of King Charles and dedicated to the use of the University and the State.[5] Immediately, according to his instructions there flourished in the place of a vile marsh our Paradise, formed by the most expert Bobart who was appointed by the wishes of the founder, according to the criteria of those times. Thus, currently our garden has gained a great reputation and holds a prime place among European gardens. Morison a man of distinguished name, carefully cultivated that garden, furnished with almost every kind of plant, in such a way that from that point it began to foreshadow his Universal History of Plants.

At the beginning of our century, Sherard, easily the greatest botanist of that age, (of whom Boerhaave said: a man *most outstanding in old-fashioned virtue, in ancient manners, in honour and in knowledge*[6]) gave his draft Pinax [Work] [7] which he took upon himself to finish, and huge library; and, in order better to take care that they receive no damage, he wished the Professor, whom he was gracing with a salary, to have his dwelling place within the very walls of the Garden. To this new chair, named after Sherard, Dillenius was appointed, whose History of Mosses and their extraordinary elaborations is known to everyone. Dillenius took upon himself to finish the publication of Sherard's most desirable Pinax [John Ray's *Synopsis of British Plants*], but this was not achieved because of the lack of botanical books, and he died in penury. But concerning that Work more things must be said. It was compiled at first by the labours of Sherard himself, who with long and multitudinous travelling - being a wise and diligent observer of nature - gathered together many things which might be of service to this work. Soon, such was his name and authority amongst Botanists, he received from others very many things passed across so that they might be assigned by him to their classes, and might be designated by appropriate names and titles. Thus that Pinax also grew, and moreover our man conserved such an abundance of plants, attentively dried out, gathered together in good order, and laid down in his cabinets, that, with Linnaeus as witness, he was giving to Oxford before others the palm of victory in this labour.

But our collections also, after Linnaeus saw them, have emerged more enhanced by additions that are still new; to be sure, my father and predecessor in this Chair, procured eighty Volumes of Plants, especially from the East marked with Malabayan

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[5] *to the Glory of God the best and greatest ... to the Honour of King Charles ... to the Use of the University and the State*. These are the words of the inscription which may still be seen on the Danby gate entrance to the Oxford Botanic Garden on the High Street, Oxford.

[6] quotation from Boerhaave *Ind. Hort. Lugd. Bat. Praef.* p.15.

[7] Pinax A Classical Greek word meaning a notice-board, board, painting, or drawing. This word was generally used for compendia of plants.

script, acquired by Charles Dubois, treasurer of the Society of the English with the East India Company, in order that they might, by his gift, come to be used by the Garden. Nor must the most renowned Thomas Shaw be passed over in silence who, when he travelled through Egypt and the Libyan shores in order to survey them, wanted the rarer plants which he brought back to be conserved here in this place.

May it be legitimate to hope that there will be no absence of those who will be mindful of such great munificence and such great names, and who will not refuse to continue to bring aid to the struggling Garden [a recurrent theme in the botany lectures that Sibthorp was giving to his student between 1788 and 1794]**.** For those things which were splendid and magnificent in the eyes of past times, are narrow and meagre viewed against the great increase of the present plant collection. For it must be admitted that our Garden is scarcely able now to conserve and nurture its treasures, still less to receive into its bosom and carefully cultivate that abundance of plants hitherto unknown, which now from every part of the world flow forth into our country. Even those which facilitate elegance and adornment are able to be promoted to a higher degree, just as much as those which facilitate the assignation of plants into their own categories, according to the variety of habitat and soil, and also to medicinal or economic use. But we desire as much as possible a more spacious place, and more convenient equipment**,** designed to conserve, amidst the frigid winter[8], plants accustomed to endure the burning sun in tropical regions.

It is certainly in my prayers for the Garden of Oxford that its ancient reputation stands firm in such a way that it does not cease to be pre-eminent amongst those which are best equipped for the public use and the advancement of Botanical Science.

Modern records at Sibthorp's Localities

Ellen Lee of TVERC says of the modern records "Most important for these data (post 2000 records at Sibthorp's locations) are records from the Oxfordshire Rare Plant Register, BSBI (VC23) records, Oxfordshire Local Wildlife Sites Project, Oxfordshire Flora Group (formally ANHSO Rare Plant Group) and Judy Webb's Oxfordshire Surveys. It should be pointed out that of the Oxfordshire Rare Plants Register (RPR) data only the field records generated are used here. The only major potential data set not used was that from the Flora of Oxfordshire (Killick *et al.* 1998). These data are held separate from the TVERC Recorder 6 database and would have been difficult to incorporate." Further details of the post 2000 records are available from the author C.R.Lambrick.

Observations Arising from Sibthorp's Records

Sibthorp gives a species account for some 750 species and varieties of vascular plants and *charophytes*. This number is a little over half the c. 1,400 species cited in the *Flora of Oxfordshire* (Killick *et al*. 1998). For 364 taxa Sibthorp gave a total of 128 localities. The area that he seems to have visited was relatively restricted, mostly making use of the main roads as far as Burford, Henley and Stokenchurch (Figure 1).

[8] This was the time of the "little ice-age".

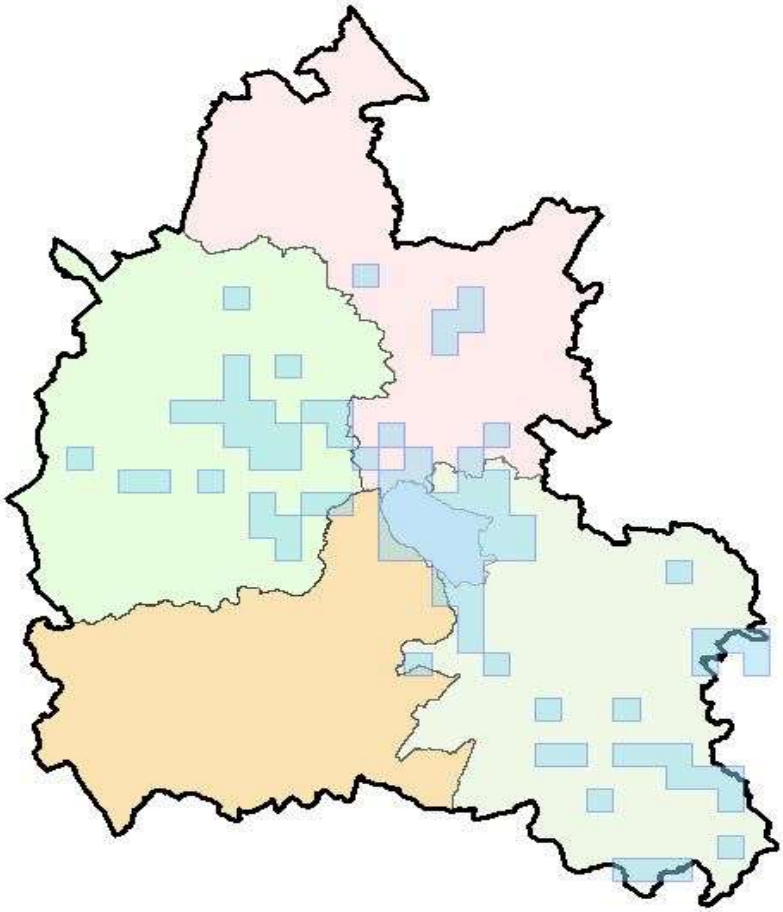

Figure 1. Map of modern Oxfordshire showing in blue the tetrads where Sibthorp made records. Cherwell District is in pink, West Oxfordshire in green, South Oxfordshire in pale green and Vale of the White Horse in yellow; note that this last district was part of Berkshire in Sibthorp's time (part of vice county 22). Provided by Ellen Lee at TVERC.

Several heaths which have now disappeared were often visited by Sibthorp, e.g. Eynsham Heath and South Leigh Heath. Most of his richest surviving sites are now SSSIs – Headington Wick Copse – now Sydlings Copse, a BBOWT nature reserve; peat below Bullingdon Bog, now Lye Valley; Shotover Hill, and Otmoor; others are Local Wildlife Sites e.g. North Leigh Heath.

Some of Sibthorp's localities are still regularly visited for their notable plants – the woods near Ashford Mills are subject to a spring pilgrimage to see Yellow-star-of-Bethlehem *Gagea lutea*; the road verge between Middleton Stoney and Ardley for Meadow Clary *Salvia pratensis*; the Burford Downs, now only a roadside fragment, for Purple Milk-vetch *Astragalus danicus* (not seen since 2002); Magdalen College Meadows for Snake's-head Fritillary *Fritillaria meleagris*; Godstow for Birthwort *Aristolochia clematitis*, and most notably the Lye Valley for Grass-of-Parnassus *Parnassia palustris*, Marsh Lousewort *Pedicularis palustris*, Few-flowered Spike-rush *Eleocharis quinqueflora*, Bog Pimpernel *Anagallis tenella*, and the extremely rare Dioecious Sedge *Carex dioica*; this last has been only been refound following extensive management (J. A. Webb pers. comm.).

Some species have proved remarkably persistent – Sibthorp reported not only Oxford Ragwort on local walls, but also *Hieracium oblongum* Weedy Hawkweed from the walls of Wadham College where Caroline Pannell found it in 1979; and he reported Bistort *Bistorta officinalis* from near Gosford Bridge where David Morris found it in 2020.

Sometimes Sibthorp unexpectedly gives localities for species which are now abundant – Holly *Ilex aquifolium*, Dove's-foot Crane's-bill *Geranium molle*, Rosebay Willowherb *Chamaenerion angustifolium,* Male-fern *Dryopteris filix-mas* and Pendulous Sedge *Carex pendula*, leaving us to speculate whether they were really less frequent then or he just had not seen them often; Rose-bay Willow-herb for example, is thought to have been quite rare until the Blitz.

Of Sibthorp's 735 localized records, only 138, less than 20%, have been so far recorded in the same tetrad since 2000. Moreover forty one of Sibthorp's 750 species (c. 5%) have not been seen since 2000 in the wild, in the vice county, Table 1.

Table 1. Species of plant reported by Sibthorp, but not recorded recently in the vice county (V.C. 23) (Erskine *et al*. 2018). (Note that some do still occur in the modern county, indicated with an *.)

Agrostemma githago	Corncockle
Antennaria dioica	Mountain Everlasting
Botrychium lunaria	Moonwort
Bupleurum rotundifolium	Thorow-wax
Chenopodium urbicum	Upright Goosefoot
Chenopodium vulvaria	Stinking Goosefoot
Clinopodium calamintha	Lesser Calamint*
Convallaria majalis	Lily-of-the-valley
Dianthus armeria	Deptford Pink
Drosera rotundifolia	Round-leaved Sundew
Eleocharis acicularis	Needle Spike-rush
Eleogiton fluitans	Floating Club-rush
Equisetum sylvaticum	Wood Horsetail
Fallopia dumetorum	Copse-bindweed*
Genista anglica	Petty Whin
Gentianella campestris	Field Gentian
Huperzia selago	Common Clubmoss
Jasione montana	Sheep's-bit
Lycopodium clavatum	Stag's-horn Clubmoss
Lythrum hyssopifolia	Grass-poly*
Marrubium vulgare	White Horehound
Moenchia erecta	Upright Chickweed
Nardus stricta	Mat-grass
Neotinea ustulata	Burnt Orchid*
Ophrys sphegodes	Early Spider-orchid
Persicaria minor	Small Water-pepper
Pulicaria vulgaris	Small Fleabane
Pulsatilla vulgaris	Pasqueflower*
Pyrola minor	Common Wintergreen
Ranunculus hederaceus	Ivy-leaved Crowfoot*
Ranunculus sardous	Hairy Buttercup
Sagina nodosa	Knotted Pearlwort
Salix repens	Creeping Willow

Schoenus nigricans	Black Bog-rush*
Tephroseris integrifolia	Field Fleawort*
Teucrium scordium	Water Germander
Trifolium scabrum	Rough Clover*
Trifolium subterraneum	Subterranean Clover*
Turritis glabra	Tower Mustard*
Vaccinium myrtillus	Bilberry
Vicia sylvatica	Wood Vetch

Several of these are species now mostly confined to the north and west, for instance Fir Clubmoss *Huperzia selago*, Creeping willow *Salix repens*, Mountain Everlasting *Antennaria dioica* and Bilberry *Vaccinium myrtillus.* It is possible to speculate that this change may partly reflect global warming.

Many species which flourish in very low nutrient conditions have also been lost, for instance Petty Whin *Genista anglica*, Moonwort *Botrychium lunaria*, Mat Grass *Nardus stricta* and Sheep's-bit *Jasione montana*, which may reflect eutrophication of the soil from nitrate deposition associated with intensive agriculture and aerial pollution.

Interestingly plants of high nutrient soils – Stinking Goosefoot *Chenopodium vulvaria* and Upright Goosefoot *C. urbicum* – have also gone extinct, in this instance perhaps associated with the loss of dung heaps and open rubbish dumps which would have provided habitats for such species.

Other extinct species are arable weeds e.g. Corncockle *Agrostemma githago*, Thorow-wax *Bupleurum rotundifolium*, reflecting the move to intensive agriculture with the use of herbicides and loss of hedgerows.

However further work is needed to investigate the fate of Sibthorp's species at his localities. More analysis of this information will shed light on the ways in which the flora of the county has changed since Sibthorp's time.

Conclusions

This work gives a picture of the flora of Oxfordshire in the 18th century, and an opportunity to review changes which have occurred during the intervening time. The apparent loss of some 80% of the plant species that Sibthorp reported as being of interest from the areas where he knew them is a sad reflection on the loss of botanical diversity in the county over the last 230 years. It emphasizes the need to take conservation action, such as the re-introduction of species, so that the loss of genetic variation does not lead inexorably to further decline in plant diversity.

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Ellen Lee at TVERC, assisted by Nick Barber, kindly extracted locality data from the TVERC database.

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Taxonomic elucidation was helped by Christopher Preston, David Morris, and Serena Marner.

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The Digitized Species Locality Data in an Excel Spreadsheet

The Excel spreadsheet referred to above accompanies this paper and can be accessed by returning to Fritillary Extra and clicking on the link.

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