

Recent work on the SANHS herbarium held at the Somerset Heritage Centre, Taunton

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RECENT WORK ON THE SANHS HERBARIUM, HELD AT THE SOMERSET HERITAGE CENTRE, TAUNTON

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A herbarium, for those who are not familiar with the word, is a collection of preserved plant specimens. Such a botanical collection quite often includes not just 'flowering plants' but also ferns, mosses, lichens, algae and fungi. In the case of flowering plants and ferns (which together comprise the so-called 'vascular plants'), the specimens are usually pressed, dried and mounted on paper, annotated with their correct scientific names along with a record of where and when they were collected, who it was who collected them, and (sometimes) information on associated species and ecological details. Thus, a herbarium sheet is not only a preserved sample of the plant itself but also a document containing valuable information about the circumstances under which the plant was collected. (Even more than that, many of the original collectors would be astonished to learn that their specimens now also represent an important repository of historical genetic material.)

The SANHS herbarium, now being worked on by members of the Somerset Rare Plants Group (SRPG), consists of a large number of pressed plant specimens, mosses, lichens and algae collected since the early 1820s. The bulk of the collection involves specimens collected in Somerset, but there is also a small number gathered from elsewhere in Britain and Ireland, and from mainland Europe and North America. The herbarium is based principally on the collections of Walter Watson (1872–1960), who was a schoolmaster, first at Sexey's School in Bruton, then at Taunton School. He later became President of the Botanical Section of SANHS, and for almost twenty years from the early 1930s was the county's designated botanical recorder. It should be emphasised that not all the specimens were collected by Watson himself; he also acquired a large number through the various botanical exchange clubs that were in operation at the time. Most of the specimens of vascular plants are mounted and labelled and presently stored in

wooden cabinets and numerous cardboard archive boxes in the Natural History store at the Somerset Heritage Centre under the day-to-day care of the South West Heritage Trust (SWHT).

Not much attention has been given to the herbarium in recent years. It has become a bit of a forgotten gem of the SANHS collections, with local botanists and researchers largely unaware of its existence. Few specimens have been added to it in the last twenty years, and little time has been spent actively curating or organising (or promoting) the collection. That all started to change in 2015, when a small team of SRPG members began a 'digitization' project. The principal aim of this project was to photograph each of the thousands of herbarium sheets that comprise the vascular plant collection (e.g. Fig. 1), and then to make the digital images available to all through 'herbaria@home' (h@h), an on-line viewing portal developed some years ago by Tom Humphrey, a member of the Botanical Society of Britain & Ireland (BSBI).

The ambition of h@h is to acquire images of herbarium sheets from all over the country, from museums, universities, schools and societies, and then to make them accessible on-line, in a digital 'super-herbarium' which is open all hours to anyone with a computer and an internet connection. With the help of an army of h@h volunteers, more than 166,000 specimens have so far been digitized, documented and placed on-line, drawn from a wide range of large and small museums, botanic gardens and other institutions, mainly from Britain but also with a few from abroad. It is expected that the SANHS herbarium sheets will also soon become part of this massive 'virtual' herbarium, with researchers and others all over the world then having access to the images and the wealth of information they contain.

SANHS and SWHT are keen to encourage greater use of the Taunton herbarium and have assisted throughout the digitization project with



Fig. 1 An example of one of Walter Watson's herbarium sheets held in the SANHS collection, showing a specimen of Broad Buckler-fern (*Lastrea aristata*, now *Dryopteris dilatata*) collected from Shapwick Heath on 5th June 1913. More than a century later, Broad Buckler-fern can still be found at this locality (Photo: Liz McDonnell & Ian Salmon)

technical advice, the loan of equipment, provision of archive-quality materials and a space for us to work. Dennis Parsons (SWHT) arranged for us to have a specially adapted 'photographic table' set up in the natural history storeroom; a wooden stand was built on which the camera could be mounted, and photographic lights were provided for our exclusive use. SANHS awarded a grant from the Natural Sciences (Pat Hill-Cottingham) Fund to assist with the purchase of some of the equipment needed, such as an angled viewfinder for the camera, remote shutter control, batteries, card reader and data storage. A digital SLR camera loaned from one of the SRPG team completed the necessary equipment and the photographic process could begin.

Regular weekly sessions at the Heritage Centre began in May 2015. By the end of February 2017 the majority of the Walter Watson collection and several separate smaller collections had been photographed; more than 8,000 images had been taken, checked and stored. Copies of all images

were sent to h@h in March 2017. The next stage of the project will be to get these images uploaded and properly documented on the h@h searchable database; this will be done by h@h volunteers (not necessarily from Somerset, although some of our members will undoubtedly participate).

In addition to images of the specimens being available on-line, it gradually dawned on us that the collections could be made even more useful for study and research if they were physically amalgamated and reorganized according to the most up-to-date taxonomic arrangement. In conjunction with a searchable database of the specimens, this would make it much easier for anyone wishing to examine the herbarium 'in the flesh'. Several years ago the Heritage Centre acquired some 'surplus-to-requirements' herbarium cupboards from the National Museum of Wales, with the specific aim of rehousing the Taunton herbarium. Their capacity is sufficient to hold the entire amalgamated herbarium, with room to spare for new specimens to be added in the future; this means that we will be



Fig. 2 SRPG members mounting and labelling Dandelion specimens before adding them to the SANHS herbarium (Photo: Simon Leach)

able to dispense with the two old wooden cupboards and all the cardboard archive boxes that currently hold the collection. We sought the advice of Tim Rich, a botanist formerly employed at the National Museum of Wales. He came over from Cardiff to spend a day with us, to examine the collection and discuss the best way to reorganise it and manage it in a professional way. With the continued help and support of Dennis Parsons, the reorganisation and rehousing part of the project is being undertaken during 2017. Some specimens will need to be remounted, and it is essential that we use acid-free archival-quality materials when doing this. We have been fortunate in obtaining a large quantity of mounting card from the Natural History Museum in London, while SWHT and SANHS have also provided us with suitable acid-free paper and card for making up new species/genus folders.

The project is breathing new life into the herbarium. Indeed, local botanists are starting to

see it not only as an important historical resource but also as a collection to which new specimens can (and should) be added. At the time of writing (April 2017) we are busy mounting Dandelions (*Taraxacum* spp) that were collected during last year's BSBI/SRPG Dandelion Workshop (Fig. 2, and see pp 211-13); once these specimens have been given accession numbers they will be photographed for h@h and incorporated into the main SANHS collection. It is anticipated that this could, eventually, become one of the larger and more important collections of Dandelions in the UK.

Once our work on the Taunton herbarium is completed, the collection will represent a valuable, and *accessible*, resource for anyone researching the distribution and status of plants in Somerset, or wishing to explore the history of botanical recording and collecting in the county and the botanists who have lived and worked here over the last two centuries.