

SOMERSET RARE PLANTS GROUP

Recording all plants growing wild in Somerset, not just the rarities



Meeting Report



Nick Stewart explaining Charophytes at Southlake Moor. Photo © Helena Crouch

Sunday 9th July 2023, Aquatic Plants Workshop, Southlake Moor (VC6)

Leaders: Nick Stewart & Helena Crouch

Report: Val Graham

This workshop was an opportunity to learn about the aquatic plants in the exceptionally rich ditches of Southlake Moor. This is a closed reserve managed by Natural England and part of the new Somerset Wetlands NNR.

While we waited for everyone to arrive in the car park, wondering if the rain was going to hold off, two beautifully restored 1930s saloons drove in, followed later by several more. These were members of the Austin 10 Drivers Club out for a Sunday run. Some time was spent re-arranging the cars so that the old bangers, and the Austins, were able to park.

By the time we left the car park the weather had improved and it was to get steadily better as the day progressed.

Our tutor for the day, Nick Stewart, gave us an initial introduction to his approach to identifying aquatic plants vegetatively by growth form, which is more effective than attempting to place into families or by looking at flowers, which are often obscure or absent.

Southlake is a stronghold of Greater Water-parsnip (*Sium latifolium*) and of Marsh-mallow (*Althaea officinalis*) which we hoped to see during the day. Two fully aquatic plants that Nick hoped to find were Flat-stalked Pondweed (*Potamogeton friesii*) and Great Tassel Stonewort (*Tolypella prolifera*). These were last recorded, by Nick, in 1995 and 2006 respectively.



Our first ditch showing a good variety of submerged, floating, and emergent aquatic plants. Photo © Val Graham

Our first dip in the rhyne beside the main track yielded Nuttall's Waterweed (*Elodea nuttallii*), Curled Pondweed (*Potamogeton crispus*), and Frogbit (*Hydrocharis morsus-ranae*). A second dip produced Canadian Pondweed (*Elodea canadensis*) allowing us to compare the two North American *Elodea*. The leaves of Nuttall's are more sharply pointed, and more strongly curled back to the stem. It is now the

more common of the two on the Levels although it arrived later.

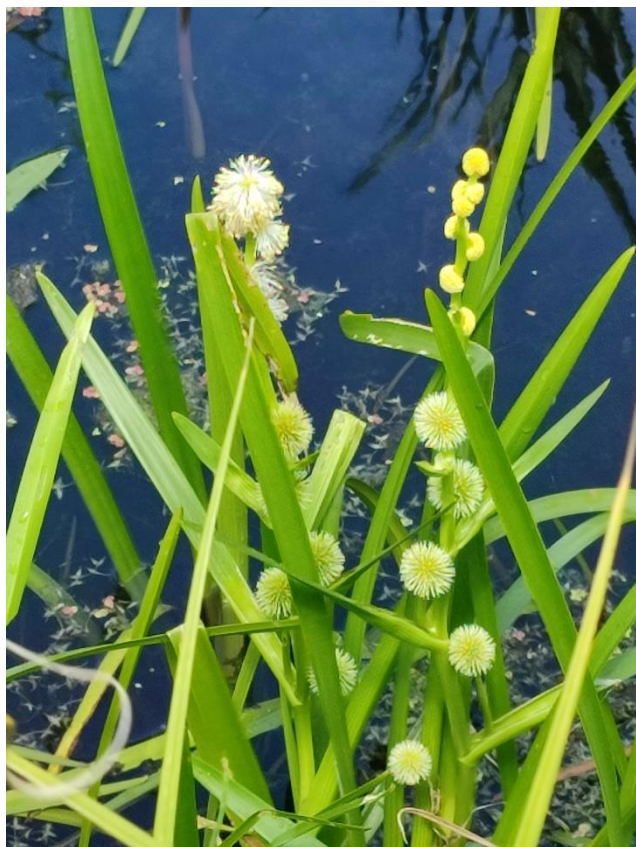
A number of duckweeds were found. The noticeably larger Greater Duckweed (*Spirodela polyrhiza*) was identified by its multiple roots and red or purple underside. Ivy-leaved Duckweed (*Lemna trisulca*) could be seen floating just below the surface with its distinctive chains of fronds. Fat Duckweed (*Lemna gibba*) was identified by its large cells which swell up later in the summer giving it its name. The shiny green Common Duckweed (*Lemna minor*), and the small, greyish, somewhat elongated, Least Duckweed (*Lemna minuta*) were also present.



Frogbit in flower with several Duckweeds.
Photo © Cath Shellswell

Tubular Water-dropwort (*Oenanthe fistulosa*) was growing in the rhyne topped by a small umbel of white flowers. Beside this were the simple upright, hollow stems of Water Horsetail (*Equisetum fluviatile*).

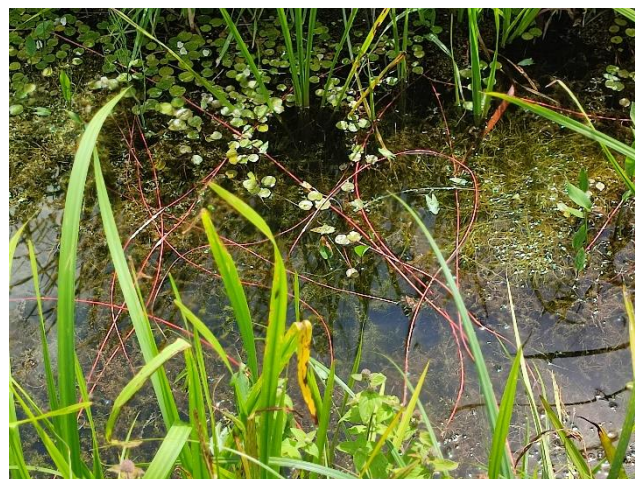
Many of the plants in the rhynes were in flower including Frogbit (*Hydrocharis morsus-ranae*), Water-plantain (*Alisma plantago-aquatica*), Flowering-rush (*Butomus umbellatus*), and Arrowhead (*Sagittaria sagittifolia*). Branched Bur-reed (*Sparganium erectum*) lined the rhynes and in one place was joined by Unbranched Bur-reed (*Sparganium emersum*) in full flower. Water-violet (*Hottonia palustris*) had almost finished flowering, but we could see the distinctive green, pinnately divided, flattened leaves.



Unbranched Bur-reed in flower. Photo © Val Graham

At our next stop we were puzzled by long red strings in the water. The suggestion that it was a new aquatic form of dodder was firmly rejected. After some investigation we hesitantly decided it might be stolons from the nearby Yellow Loosestrife (*Lysimachia vulgaris*).

Although we did not find Flat-stalked Pondweed, we did find the much more common Hairlike Pondweed (*Potamogeton trichoides*).



Mysterious red strings Photo © Val Graham

We were pleased to see Marsh-mallow growing well, with several large plants in flower along the edge of the track.



Marsh-mallow. Photo © Alastair Stevenson

Nick led us through his key to identify Common Water-starwort (*Callitriche stagnalis*) which is only possible with close examination of the fruit.

The rhynes here were so rich in aquatic plants that were still in sight of the car park when we stopped for lunch. A search for *Carex elata* previously seen here in 2015 was unsuccessful.

After lunch Nick showed us some of the underwater leaves of familiar species, which can be quite different to the emergent leaves. Those of Waterplantain are D-shaped in cross-section, with one flat edge, while those of Arrowhead are ribbon-like. Bur-reeds have strap-shaped underwater leaves with a flattened triangular cross-section.

Next, we tackled Stoneworts (*Charophytes*). These are some of the most complex green algae and have a common ancestor with land plants. The key provided by Nick allowed us to identify Common Stonewort (*Chara vulgaris*). Nick then presented us with another Stonewort which did not have the characteristic stripy stem of *Chara* species. It had dense masses of fertile branches which give it its common name Great Tassel Stonewort (*Tolypella prolifera*). It prefers newly cleared ditches and can persist as spores for years while waiting for suitable conditions. This is a rare species nationally and was one of the target species for the day.

Finally, we walked a few hundred metres to the Greater Water-parsnip ditches. On the way, one part of the group was delayed while admiring Whorled Water-milfoil (*Myriophyllum verticillatum*) with its emergent flowering spikes.



Whorled Water-milfoil. Photo © Helena Crouch



Greater Water-parsnip. Photo © Helena Crouch

The Greater Water-Parsnip was flourishing along a hundred-metre stretch, on both sides of the track. Its smaller and more common cousin, Lesser Water-parsnip (*Berula erecta*), was nearby for comparison.

Overall, it was a very successful day, and we were able to see the huge variety of aquatic plants at their best. We were delighted to re-find Great Tassel Stonewort after so many years.

Many thanks are due to Nick for sharing his extensive experience of aquatic plants and to Natural England for permission to visit the site.

Further information on aquatic plant identification can be found on the BSBI website under the Aquatic Plants Project. There are also links to Nick's webinar videos, his vegetative keys, and many other resources.