



CAM VALLEY MATTERS No. 35 8 February 2017  
The Occasional Newsletter of the Cam Valley Forum

<http://www.colc.co.uk/cambridge/cam.valley.forum/>

Chair: Jean Perraton Editor: David Brooks

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**Invasive Floating Pennywort Workshop, 31 January 2017**



Experts from the world of *Hydrocotyle ranunculoides* gathered in the David Attenborough Building, on the New Museum Site, for a workshop convened by CVF and CCF (Cambridge Conservation Forum). **Jean Perraton**, Chair of CVF, and **Roger Mitchell** of CCF played key roles in organizing this important step towards understanding and controlling pennywort.

In the left foreground of the photograph is Roger Mitchell who chaired the concluding panel discussion. Standing, left, **Stephen Tomkins** (CVF) gave a closing vote of

thanks to all involved. Seated, fifth from the left is **James Cadbury**, former Head of Science at **RSPB**.

The first talk by **Lesley Saint** (seated fourth from the left, above) of the **Environment Agency (EA)** explained the EA's role and placed pennywort in legal and political contexts. Although the EA does not routinely survey for the plant, it collates records through [anglian-invasive@environment-agency.gov.uk](mailto:anglian-invasive@environment-agency.gov.uk). Each reported location should include a photograph, an OS grid reference if possible and any other helpful information.



Sheep trapped in floating pennywort  
Photo: Trevor Renals EA

The enthusiasm and unequalled local field observations of **Mike Foley** (CVF, seated far left) triggered the idea of the workshop which, in turn, benefited from an account of these and of his trials and tribulations in trying to remove the pest manually. **Colin Sparkes** supplemented this with some dramatic action film of the 'weed boat', acquired to the specification stipulated by the **Cam Conservancy**, for the removal of floating rafts of the pennywort, tons at a time, though it will only operate in deep water.

**David Aldridge** (Department of Zoology, University of Cambridge) informed the meeting about

**www.ConservationEvidence.com** whose purpose is to provide free access to selected knowledge, derived from as much published scientific research as possible, relevant to controlling or managing specific invasive animal or plant species such as pennywort.

It fell to **Jonathan Newman** (Centre for Ecology and Hydrology, Wallingford, in red in top photo) to apply the frighteners. The plant is a formidable beast (or should that be 'triffid'?). He showed how control by glyphosate, for example, has to take into account the plant's physiology. It has a great capacity for vegetative reproduction, rapid growth and has determined persistence. Even more alarmingly, seeds have now been collected from its tiny flowers and shown to germinate in the laboratory. Will global warming encourage their germination outdoors?

The mood of the workshop was changed by promising news from **Djami Djeddour** of **CABI (Centre for Agriculture and Biosciences International)**, seated third from left in top photo. Over several years she has been involved in a painstaking and thorough research project to verify the suitability of the weevil, *Listronotus elongatus*, native to the Argentinian pennywort, as a means of biological control in the UK. It came as a surprise to many present that the friendly little beast may be licenced for release for trials as soon as late 2017 or 2018. Watch this space.

CVF and CCF are grateful to South Cambridgeshire District Council, Cambridge City Council, Cam Conservancy, the EA and Scudamores for their sponsorship of the workshop and to the Cambridge Conservation Initiative for the use of the David Attenborough Building. A full report on the workshop will be published by CVF very soon.





CAM VALLEY MATTERS No. 36 13 March 2017  
The Occasional Newsletter of the Cam Valley Forum  
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**CVF AGM: Monday 3 April at 7pm in St. John's Church Hall, Hills Road, Cambridge.** At about 8pm, after the AGM and after refreshments, **Vince Lea of the Countryside Restoration Trust** will give a presentation about his work in **controlling mink** on the Cam and tributaries. The photograph shows Vince at work on the Bourn Brook. Many members will be familiar with his inspirational talks and guided walks on all aspects of conservation in the Cambridge area. All are most welcome.

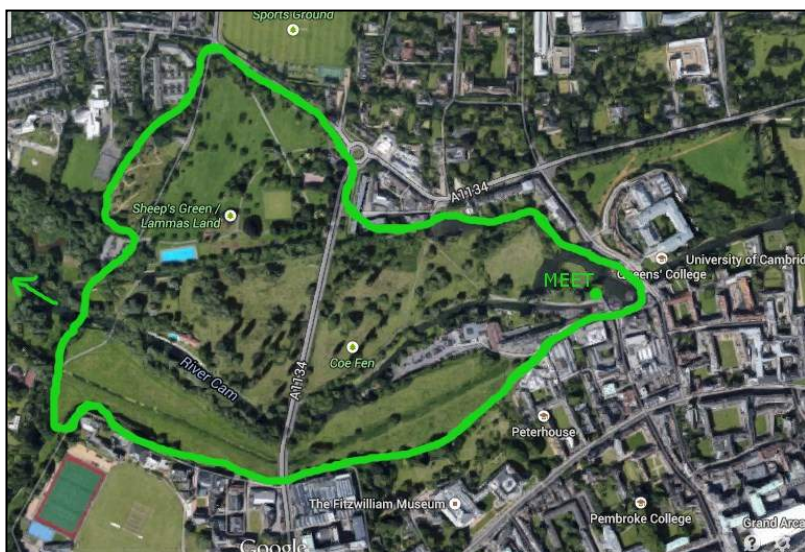
**Floating pennywort again: and not for the last time**

Workshop on 31 January (see Newsletter 35 dated 8 February) was the need to tackle pennywort early in the year,



before it has had a chance to spread. So, the Cam Conservators will carry out a mechanised clearance from Byron's Pool to Popes Corner shortly. CVF is preparing to follow this up, reaching those parts not already reached, with volunteers working on the banks and from punts. To prepare for this, the formidable enthusiast, Mike Foley, and his team, have

been experimenting with the most effective ways of fishing out the fragments inevitably left by the Conservators, and the best implements to use. The above photographs show the team's trial and error method in action on 4 March in Paradise. A promisingly ingenious device in the right hand photograph turned out to be too fragile to ensnare the numerous small mats growing among tree-branch debris [from left to right: Ruth Hawksley, Wildlife Trust, Dr. Stephen Tomkins, CVF, Jean Perraton, Chair, CVF, Zinnia Thorpe, ARU student, Colin Sparkes, Cam Conservator].



**The Annual Big Clean-Up Saturday 25 March 2017** See photograph on left. If you would like to register for the event please email **Malcolm Schofield**; his address is [pamal.schofield@live.co.uk](mailto:pamal.schofield@live.co.uk)  
The programme is:

**0945-0955** Registration, collect gloves, litter pickers and bags opposite Scudamore's Boatyards on the Upper River at the Mill Pond  
**0955-1000** Safety talk and Safety Checklist  
Reminder  
**1000-1200** CLEAN UP

Please arrive early in order to make the registration process easier. Look out for the Cambridge City Council van. Wear old clothes that you don't mind getting dirty, and sturdy boots or wellies. Do check the weather forecast, stay warm and bring waterproofs in case it begins to rain. If you plan to cycle, do check your bikes before the event and wear appropriate safety gear. In the event of adverse weather condition, we will cancel the event and you will be notified by email by 08:30 on Saturday 25 March. If it begins to rain during the event, the Clean Up will end early.





CAM VALLEY MATTERS No. 37 7 April 2017  
The Occasional Newsletter of the Cam Valley Forum  
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**Mission accomplished: 1 April 2017 was the day of the big assault on floating pennywort on the upper Cam.**

Some 30 volunteers gathered at the Mill Pond by Scudamores Punting which was enormously helpful in providing 6 punts for



the purpose. The (top left) photograph shows briefing in progress. **Mike Foley (Cam Valley Forum)**, the indefatigable instigator of the event and of all the research and practical fieldwork which led up to it, is holding the red folder. **Colin Sparkes (Cam Conservators)** was the coordinator for the day and the photograph immediately above shows him towing two punts against wind and current.

Large amounts of pennywort were gathered, from the edges of the river channel, and placed in bins carried on the punts (see photo above, left). The top right photograph shows the painstaking removal of the aggressive weed from between fallen branches. Growth of pennywort amongst tree branches draped in the water is also most troublesome. The top middle photograph shows fresh spring leaf growth on the water surface. A few volunteers also worked from the banks of the river. Some pennywort mats remain untouched, beyond the reach of rakes and nets. It is feared that these will grow rapidly during the next month. These will be mapped and may need to be dealt with chemically. The photograph immediately above (left) shows the highly effective boom chicane which prevented tiny disturbed fragments of the plant from floating downstream only to take root elsewhere.

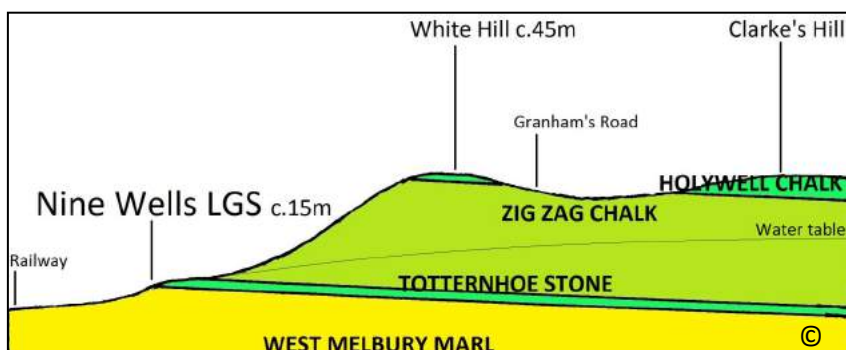
**In summary**, riverside communities, volunteers, clubs, and professionals are coming together to remove this pest. The efforts of the **Cam Valley Forum** Chair, **Jean Perraton**, are particularly appreciated. The organisers were also delighted that **City Councillor Anna Smith** (with executive responsibility for streets and open spaces) came along to thank the workers.





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### **Spring augmentation at Nine Wells Local Nature Reserve (LNS) and Local Geological Site (LGS).**

The photograph above shows preliminary exploratory drilling in March 2017 for the scheme (managed by the Environment Agency) to augment the flow of Hobson's Conduit at Nine Wells. (See Newsletters 30 and 33.) Over decades, stream flow has been reduced as the water table in the Zig Zag Chalk (see cross section) has been lowered by over-abstraction for the population's water supply.

The south-east-facing boundary of the Nature Reserve follows the line of trees in the photograph, at the foot of White Hill. The profile of the field lies, in the geological cross section, immediately under 'ells LGS', where it levels off as a structural terrace associated with the relatively hard, thin, water-bearing Totternhoe Stone stratum which lies on top of the more impermeable, (clayey) West Melbury Marl. Springs issue where the water table intersects the land surface, in the Nature Reserve.

The plan is to pump water from the Chalk aquifer, perhaps at Babraham or even White Hill, pipe it underground to four injection boreholes this side of the trees in the photograph. This water should then seep a short distance through the bedrock and emerge through the spring heads which are just the other side of the trees.

Unhappily, pumping water from the aquifer will lower the general water table still further and thus reduce natural spring flow in general even more.

**CVF AGM 3 April 2017** After the business of the meeting Vince Lea of the Countryside Restoration Trust presented a masterly and informative talk on the threat that the non-native mink poses to Cambridgeshire and UK wildlife. The photograph below shows Vince on the

right in discussion afterwards. The talk was based on his long personal experience of trapping mink in the Cam Valley. He also put his own endeavours into regional and national contexts.



In particular he placed mink in its ecological context, taking numbers of native water voles (their most attractive prey) as an indicator of mink distribution. The water voles were present in large numbers in Mesolithic times and were hunted as a pest in the 18C and 19C. They declined further in the 1920s when mink were introduced.

The overall message was that mink are under control in the Cam Valley but success in one area cannot be achieved without action taken in adjacent areas, and beyond. Vince also dealt with the mechanics of trapping whilst showing compassion for this sentient creature.



Provisional CAM VALLEY MATTERS No. 39 June 2017  
The Occasional Newsletter of the Cam Valley Forum  
<http://www.colc.co.uk/cambridge/cam.valley.forum/>

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**Kingfishers Bridge  
Wetland Creation**

**Project** In June some 20 members and supporters were privileged to have been guided through an astonishing richness of wildlife and diverse range of habitats by the nature reserve's senior warden, James Moss, and Stephen Tomkins, Kingfishers Bridge Trustee.



Tom Bragg

In 1994 Andrew Green, a wetland enthusiast, began transforming 300 acres of his farmland near Wicken Fen into the site now recognised to be of national significance. There was already some variety in the terrain provided by a low outcrop of Jurassic limestone and some historical activity such as quarrying. This variety was enhanced by creating a large reed bed and by scraping lakes, the largest of which is 25 acres in area, all fed by high quality water from the limestone. The adjacent 'washes' on the flood plain of the River Cam are an SSSI. The Cam water (of questionable purity) encroaches onto just the washland, along with the dreaded floating pennywort. The quality of the limestone water is under threat due to the recent planning permission given to quarry an adjacent plot, and to use the void for landfill.

Two of the greatest successes have been the creation of a habitat for breeding bitterns since 2003 and the recovery of the very rare water germander plant. The washes and new wetland attract breeding lapwing, red-shank, and snipe. Unlike most nature reserves, Kingfishers Bridge is notable for the style of its management which creates a 'sanctuary' by strictly limiting human access to ensure successful bird breeding. Approaches are also flexible and experimental. Although the introduced Asian water buffalo (photo above) are not 'natural' to the area they are employed in a 'naturalistic' manner to trample the reed beds. Interested readers can find out much more at <http://www.kingfishersbridge.org/>



Trevor Sawyer

**The Rush at Sheep's Green** Schoolboy memories of a golden age when the fish-laden Rush meandered across Sheep's Green in central Cambridge led the CVF Committee to wonder if repairing the penstock sluice on the bank of the Cam just downstream from the Canoe Club might also turn the clock back 70 years. (See Newsletter 34, 10 December 2016.) A project which linked the penstock with a fish pass attracted the keen attention of the Environment Agency and the City Council, and sufficient money.

The work has now been carried out and a vigorous flow of water has been introduced where there was none, to speak of, before. Some carefully-considered design features of the channel itself came as a surprise (see photo on left), and although temporary scarring of the landscape was greater than the CVF anticipated, recovery is under way and there have been very favourable responses by members of the public; and by fish and eels.





CAM VALLEY MATTERS No. 40 12 September 2017  
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**Himalayan balsam** What a pretty flower!

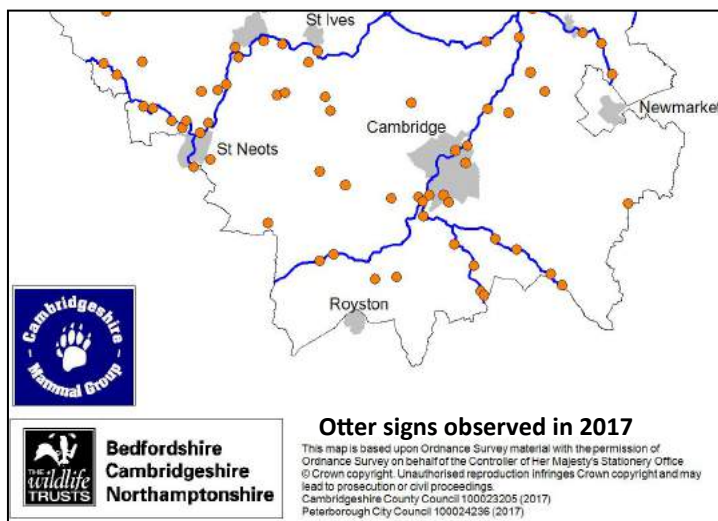
This plant was first introduced into this country in 1839. In the 1940s a Miss Welch collected seeds from Sheffield and took them to the Isle of Wight where she sprinkled them beside a river near Newport. A Mrs Norris of Camberley in Surrey spread seeds on local waste areas and in woods, and gave them to passersby. She also took them on holiday to France and Spain. Sadly, many others have also spread them intentionally. Each seed head has up to 800 seeds and the explosive capsules send them up to 4 metres.

For the last 6 years groups of volunteers under the guidance of Ruth Hawksley (in photograph) of the Wildlife Trust and Vince Lea of the Countryside Restoration Trust have repeatedly waded through at

least the upper reaches of the Bourn Brook, having some impact on the plant. Battles have been won but the war continues. The Wildlife and Countryside Act makes it an offence to plant this species in the wild.

**Cambridgeshire & Peterborough Otter Survey 2017**

[http://www.wildlifebcn.org/sites/default/files/otter\\_survey\\_report\\_2017.pdf](http://www.wildlifebcn.org/sites/default/files/otter_survey_report_2017.pdf)



There is also positive news of Cambridgeshire's otters. The above report (prepared in June 2017 by R. Waldron, B. Lockyer, and R. Hawksley) was of a survey conducted between the beginning of December 2016 and the end of February 2017. This was a repeat of surveys undertaken in 1992, 1997, 2002, 2007 and 2012. The surveys covered all major watercourses in Cambridgeshire and many smaller ones as well. They have tracked the recovery of otters throughout Cambridgeshire, which has been a dramatic change over the years. This time a total of 291 sites were visited and surveyed using the same methodology as in previous years; bridge checks and walking adjacent riverbanks. This included 10 new

sites in Cambridge City. The results showed a slight decrease in sites with otter signs from 49% of those surveyed in 2012 to 41% of sites surveyed in 2017. There are a number of possible reasons for this, and the survey does not necessarily indicate a decline in otter numbers. Otter signs were found at half of the new Cambridge sites. The survey was run jointly with the Cambridgeshire Mammal Group.



Trevor Sawyer





CAM VALLEY MATTERS No. 41 11 October 2017  
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[www.camvalleyforum.uk](http://www.camvalleyforum.uk)

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### A tropical swamp? The Okavango Delta?

No. One of the ponds in the grounds of **Cherry Hinton Hall** (owned and managed by Cambridge City Council). Various native species including sedge, reed, water mint, and marsh marigold have been planted in what was a rather neglected, stagnant corner created by 19C landscaping on the Cherry Hinton Brook.

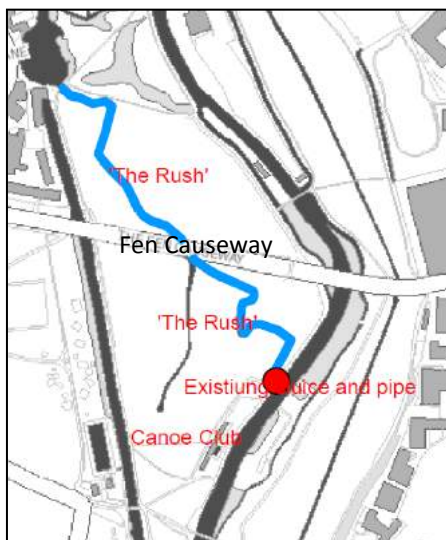
### There is an aggressive immigrant near you.



This one is New Zealand pigmyweed, *Crassula helmsii*. Though much has been pulled out, it still infests the margin of this pond; there is fear that it will spread down the Brook.



The main pond (through which the Cherry Hinton Brook flows) has been made narrower (photo on left, November 2016) and planted (on right, September 2017) with similar water species to those named above. The effect is to increase the rate of flow of water through the pond where ducks congregate, to be fed with bread by visitors to the park.



**The Rush**, the restored water course (see map on left by Guy Belcher, Cambridge City Council, © Crown copyright, and CVF Newsletter 34) across the **Sheep's Green & Coe Fen Local Nature Reserve** (managed by the City Council) has attracted a variety of fish. The scarce spined loach, along with its more common cousin the stone loach, and pike and chubb, and 13 other species of fish were quick to recolonise, as well as eels and grass snakes. The photograph shows one of the jack (juvenile) pikes.





CAM VALLEY MATTERS No. 42 1 December 2017  
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**Before and after mechanical removal of floating pennywort by the Environment Agency (EA). Above: Grantchester Mill Race, September 2017. Bottom: Just below Bottisham Lock, November 2017.**

Mid to late summer saw the expected explosive growth of this invasive plant on the Cam into large mats that were close to meeting or did meet across the river (photo below). The negative effects of pennywort on biodiversity in these situations are starkly apparent. The work party on 1 April (Newsletter No. 37) was the first major undertaking by volunteers, timed to follow removal of larger mats by the **Cam Conservators co-funded with the EA**. However along the Grantchester Meadows low-hanging tree branches - many growing into the water - and bushes on both banks have not only been trapping drifting pennywort but also severely hampered surgical removal of the pennywort by the volunteers. Remnants remained in place which later became mats too large for volunteers to deal with.

Nonetheless, 2017 is a year which has seen great strides in bringing together communities and professionals to repel this beast. In early October the **Cambridge Canoe Club** became enthusiastically involved. We have also been working with the **University Angling Club** in the Bourn Brook. Later in October, the **Wildlife Trust** organised a corporate punt working party. On 30 November a volunteer branch-pruning and pennywort-pulling work party at Paradise LNR was organised by

the **City Council**. Our aim is to eradicate it working downstream from the Bourn Brook to Cambridge.

The **EA** continues periodically to mechanically remove large quantities of pennywort from the upper Cam (photos above and below). Potentially breakaway pieces from these mats in these upper reaches could re-infest further downriver, and so need to be removed. At the time of writing, the **EA** is removing hundreds of tonnes of pennywort downriver from Bottisham Lock (photos below).

Along Grantchester Meadows the removal of the lowest-hanging branches is a key target. **Trumpington Farm Company (TFC)** has already started a willow pollarding programme. The **Cam Valley Forum** has been awarded a grant of £4,385 from **Cambridge Water's PEBBLE fund for biodiversity enhancement projects**, towards late-winter branch removal and pruning by professional contractors. **TFC, Scudamore's Punting, Cam Conservators, CVF and Grantchester Parish Council** are contributing too, enough to do about 600m of our target 1km of riverbank, and we are striving to attract further funding.

Mike Foley

