Issue No. 28 November 2010

Friends of Thwaite Gardens Newsletter

FRIENDS OF THWAITE GARDENS
Minutes of A G M 5.10.2010

Apologies: Received from B. Sylvester.

1 Chairman's Welcome and Report:

D. James welcomed everyone to the A G M and the following presentation by Vanessa Cook. The chairman gave an overview of his report as Treasurer and also his report as Chairman, which will be published in the next newsletter.

The main topics discussed revolved around the progress of the Friends projects and the recent meeting with Professor John Leach Pro-Vice Chancellor (Engagement). It was mentioned that although the University have stated their commitment to supporting the diverse botany of the gardens it does not have plans to invest in to any future development as a Botanical garden. D. James went on to state that if the Friends were to cease working on projects the gardens would go into further decline. He stressed it was therefore even more important that the Friends continue with their work.

Thanks were given to all of the volunteers and a request was made for anyone with an interest to get in touch.

Also mentioned was the 'Best Ever' Open Day with record takings, a lovely day and record number of visitors.

2 Secretarial & Treasurers Reports:

These were agreed.

3 Election of Chairman & Officers:

The current Chairman Mr D. James was agreeable to continue and was re-elected.

The Chairman informed The Friends that a longstanding committee member, M. Pearce, had decided to resign but was very willing to continue assisting with refreshments and help where she can.

D.James thanked her profusely for her time and support over the years and how this was very much appreciated by all.
There were two further nominations to become a committee member P. Foreman and J. Major

D. James (Chairman / Treasurer) P.Bailey (Secretary) N. Buck, J. Goodall, P. Foreman, J. Killingbeck, J. Major, V. Swetez & J. Warbuton (Accountant) were all re-elected.

4 Members Questions and Comments:

Billie Lee a member of the Cottingham In Bloom group was pleased to read to the Friends a recent report following a recent visit by the In Bloom judges. The Friends volunteers were thanked and encouraged to continue their good work at the gardens. Cottingham School was highly commended for their production within their garden.

The meeting was then closed by the Chairman.

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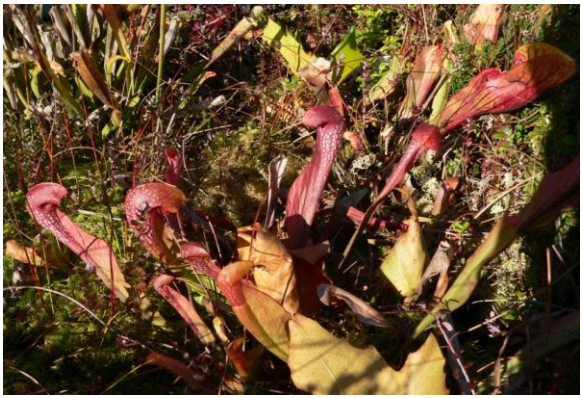
MEMBERSHIP RENEWAL REMINDER

Annual subscriptions were due on 1st November. They remain at £7 per person or £10 for two people living at the same address.

Cheques should be made payable to "The Friends of Thwaite Gardens" and sent to the treasurer, whose contact details are on the renewal form and also on the back page of this Newsletter.

Please note: **new members who have joined on, or after, the Open Day in May do not have to renew their subscriptions until November 2011.**

PLANT OF THE MONTH – HUNTSMAN'S HORN *(Sarracenia purpurea)*



Autumn traditionally is the time of the hunter; the "hunter's moon" occurs in October and November. So this month we will take a look at a strange almost alien looking plant and its allies, which bears the name of Huntsman's Horn.

It is a plant of strange habits as well as strange appearance. It is native of wet peaty bogs in north-eastern USA and southern Canada and feeds on insects; a so-called "carnivorous" plant.

Why would a plant need to be carnivorous in the first place? It is all to do with its habitat. The acid, peaty bogs where many of these plants live are almost devoid of nutrients. This is largely due to the fact that in cold saturated acidic conditions bacteria are unable to break down organic matter into its constituent minerals. Dead plant remains accumulate in thick layers of peat, a process which may continue for thousands of years unless something happens which allows drying to introduce a supply of oxygen into the ecology.

Lack of decay prevents nutrient recycling, so any plant which grows here will benefit if it can find some way of obtaining its nutrition from 'outside' the system so-to-speak. Carnivorous plants obtain theirs by trapping passing insects which are "digested" by the plant.
The Huntsman's Horn's insect traps are basically leaves shaped into funnels (leading to the alternative name of "pitcher plant") with liquid at

the bottom. Sugary droplets at the rim lure the insects which then slip down the funnel and drown at the bottom. They decay into a sort of putrid soup which is absorbed by the plant.

The Huntsman's Horn at Thwaite grows in a miniature bog with a number of associated plants, some of which are carnivorous some of which are not.

There are two other species of *Sarracenia* growing here, both of which are native much further south in the USA, so, on the whole, have grown less vigorously than *S. purpurea*.

Venus' Flytraps have also been grown here but have petered out after 3 years or so (probably due to insufficient summer heat).

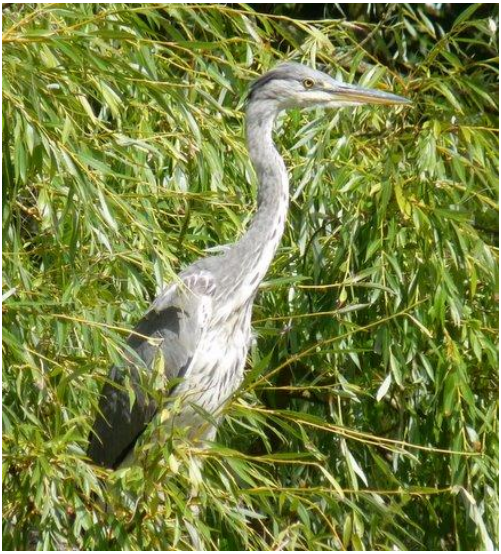
Our most successful insectivorous plant of all however is the Cobra Lily (*Darlingtonia californica*). This has a slightly more complex trap system than *Sarracenia* and it originates from the opposite (western) side of North America. Not only is this species surviving here but is actually spreading, so seems particularly happy.

Although *Sarracenia purpurea* is actually naturalised in one or two places in Britain, it is more usual to grow all of these plants under glass in the UK, so the success of our insectivorous bog is perhaps all the more remarkable.

As for the other plants in sharing the bog, these have more than once been mistaken as "weeds" but are, in fact, typical wild bog denizens in Britain. A thick layer of moss is *Sphagnum sp.*, the main constituent of peat. Other plants include Cotton Grass (*Eriophyllum sp.*), Cranberry (*Vaccinium sp.*), Cross Leaved Heath (*Erica tetralix*), Marsh Pennywort (*Hydrocotyle sp.*), Bog Rosemary (*Andromeda sp.*). Although growing all these plants together introduces a complicated and unpredictable element of competition, it does result in a more authentic mini habitat, albeit in the totally artificial context of Thwaite garden.

John Killingbeck

Heron spotted on Thwaite Lake



Welcome visitor! A Grey Heron sitting on willow on the north side of the lake. The bird has been seen several times over the last few months.

Picture taken by Margaret Jones

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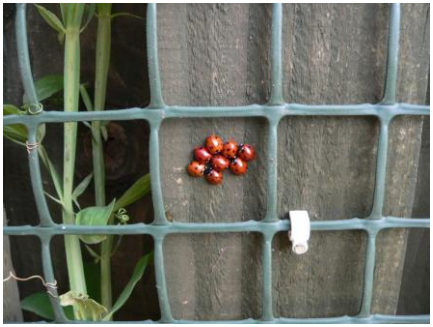
A group of Ladybirds spotted squaring up for winter!



TREES of THWAITE No. 8:- LARGE LEAVED LIME (*Tilia platyphyllos)*

By way of a change, this month I will introduce a commonly encountered native tree in the gardens rather than one of the Thwaite exotics. This is to demonstrate that a tree does not need to be rare in order to have an interesting, even mysterious tale to tell. However I must qualify this statement by saying that although certainly 'native' and 'commonly encountered', *Tilia platyphyllos* is rather rare as a truly wild tree and most specimens that one meets with will have been planted.

There are two native limes, *T. platyphyllos* and *T. cordata* (the small leaved lime), as well as the hybrid *T. x europaea* (common lime). All have a somewhat enigmatic history and very constrained wild distribution.

T. platyphyllos wild populations are known only from a scatter of disjointed enclaves ranging from outposts in Yorkshire, the Cotswolds, the Wye valley and the South Downs, with seemingly very little between.

Amazingly the last location was only 'discovered' quite recently! How this strange erratic distribution can be explained is no easy task, particularly as the tree produces quantities of viable seed, a few offspring of which can be seen even in undisturbed areas of Thwaite as vigorous young saplings, although it has been observed that for some reason seedlings rarely seem to achieve maturity in the wild. It would be interesting to leave the Thwaite saplings alone to study how they develop.

Wild populations of *T.cordata* are also puzzling though for paradoxically opposite reasons. In this case the tree is widely though locally distributed across southern Britain, yet bizarrely rarely (some authorities claim, never) produces viable seed in this country. Furthermore, *T. cordata* was once the dominant forest tree of much of prehistoric England (not oak as is commonly supposed). When prehistoric forests were cleared by Man, the tree became confined to pockets of ancient woodland which never fell to the plough. Here it remains today, unable to reclaim its once vast domain. Two big and obvious questions regarding *T. cordata* therefore beg to be answered:

1, How did the tree arrive here in the first place and achieve such dominance in the past?
2, How has the tree managed to persist so many centuries without reproducing since its prehistoric zenith?

The second question is the more easily answered. Although infertile, nor having any capacity for suckering possessed by other infertile natives such as aspen and some elms, the lime has compensating powers of individual endurance perhaps equalled by no other British tree.

The lime has a strong natural propensity for coppicing (re growing from an original stump).By this means, the re-sprouted base of an old tree becomes a circle of new trees, which in turn repeat the process to become an ever widening clump. This faculty was encouraged by humans over the centuries by regular deliberate coppicing. So wide are some of these old stools, that experts calculate that many cannot be less than a thousand (some estimates claim, several thousand) years in age.

Lime is also adept at so called 'phoenix' growth, whereby fallen but still attached limbs are able to take root in the soil and grow away as new trees. In today's lamentably over-tidy landscape, this is not often seen. However in a neglected corner of Burton Bushes, Beverley, there is a lime tree demonstrating this capacity very well.

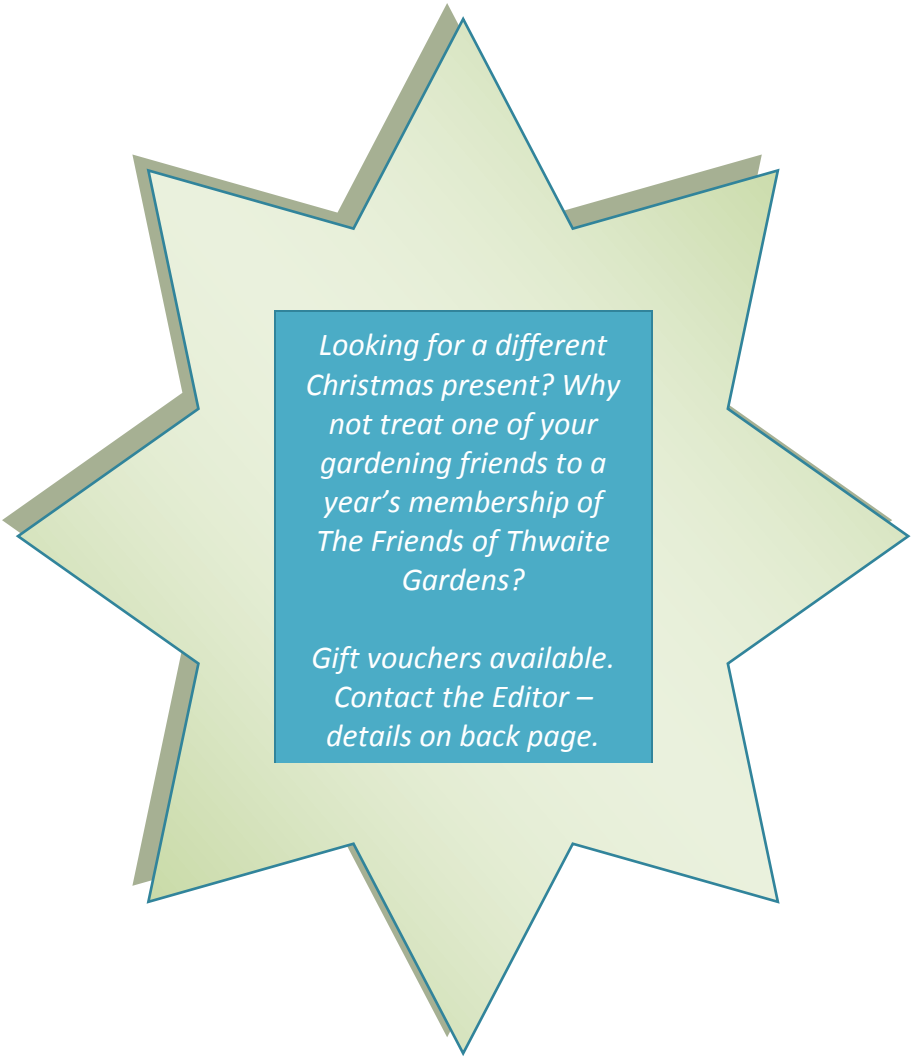
Yet, even with the time span of millennia, ground is gained only very slowly by these methods of reproduction. So, with regard to the puzzle of how lime trees came to arrive here and dominate in the first place, one explanation is to appreciate that the climate several thousand years ago was significantly warmer than today - perhaps by 2^0Celsius (modern climate change theory notwithstanding). At these temperatures lime produces viable seed (as it does today in continental Europe) and was able to spread more easily.

Wild lime in a sense represents a living 'high tide mark' of post glacial climate in Britain. Most other organisms associated with this warm period have since retreated southwards and may occur only as sub fossil remains in the UK. Just a few - such as the 'Mediterranean' strawberry trees and heaths of western Ireland - still hang on in tiny relict populations as testimony, like the lime, of a warmer recent past.

We have a small collection of lime species at Thwaite (which oddly enough does not include native small leaved lime). By far the best example is a big *T.platyphyllos,* one of the tallest trees in the garden which predates university ownership.

So as you admire the soaring trunk, or enjoy the delicious honeysuckle sweet perfume of this lime tree in bloom, consider that this tree has powers of longevity and endurance that will outlast not only your own mortal frame, but perhaps our entire civilisation.

John Killingbeck



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This edition is late because we have had real difficulty getting enough contributions to fill it!

As you tell us you enjoy the Newsletters, please help to make them interesting and informative for others by joining in and submitting articles, comments (letters to the Editor?), photographs, or anything else you think might be of general interest to members.

Plants Growing in the Glasshouse
2: *Aristolochia brasiliensis*

Country of origin:- Brazil
Common name:- Dutchman's pipe
Family:- Aristolochiaceae

You will find this growing adjacent to the fern house, midway down the corridor.

It is an evergreen climber which can grow to 9m in height. Our plant, which has been established in its present position for in excess of 25 years, can be seen scrambling over the bottle brush shrub and up the side of the corridor.

The leaves are kidney-shaped and are pale green. The curious flowers are mottled with a pattern of white and reddish-brown patches and veins.

It flowers throughout the summer months and is still producing flowers in October/November.

The flowers emit a very strong odour rather like rotting flesh – the equivalent of "Brut" in the 1960's – to attract insects for pollination.

The insects crawl into the bulbous base where they are trapped overnight by hairs in the tube which face downward preventing escape. The pollen is then released by the plant and deposited onto the insects and the hairs shrivel away allowing the insects to escape and to pollinate another flower.

Vic Swetez

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Diary Date:-

Next meeting
Tuesday 25th January 2011
7.30pm
Cottingham Methodist Hall
Doug Stewart
"10 Wow Plants"

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We welcome contributions to the newsletters from all members, so if you have any articles, ideas, photographs, letters etc which you think would be of interest or would provoke discussion, please send them to the Newsletter Editor at the address above.

Note: Articles are published on the understanding that they represent the views of the writer.