Issue No. 43 April 2016

Friends of Thwaite Gardens Newsletter

Open Day 2016
22nd May - Reminder

Preparations for this year's open day are in hand and we hope that as many Friends as possible will be willing to lend a hand.

There will again be a plant stall with a wide variety of plants for sale. Donations of plants from Friends would be welcome. There will be the usual refreshments served from 11 am in the corridor, and we would very much welcome contributions of home baking to this stall, as it usually goes down very well!

Other ways in which you can help to make the day a success are:- Welcoming visitors, assisting with refreshments, handing out brochures, signing up new members, manning the plant stall or taking admission fees. It's not too late to volunteer to help.

Admission to the Open Day is free to members on production of their membership cards and for non-members is the very reasonable price of £3.00 with accompanied under 16s free, so please tell all your family and friends about the event and let's try and make this year's Open Day even more of a success than last year.

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Dogs at Thwaite – a reminder

We are getting more complaints about dogs. Please ensure that you keep your dog on a lead at all times in the gardens.
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Thwaite Lake Crucian Carp Research Project

Hull University biologists in collaboration with the Environment Agency recently introduced 1000 Crucian Carp into the lake at Thwaite gardens.

The Crucian carp *Carassius carassius* is endangered across its natural range and is on the International Union for the Conservation of Nature's Red list of threatened species. It is one of the Environment Agency's Biodiversity Action Plan Species and a National Crucian Conservation project was recently set up.

1000 one year old fish bred by the Environment Agency at their Calverton fish farm from original Yorkshire stock were released and this new population can be used as an "Ark" population to increase the British range and to provide fish for future releases elsewhere.

Before the fish were released the lake's water level was dropped so it could be netted and electro fished by the Hull International Fisheries Institute (HIFI) to ensure that no other fish were present that could negatively affect the Crucians. Introduced Goldfish or Koi carp can hybridise with Crucians so it is vital that none are present. Please do not put any unwanted pet fish in the pond, this could be disastrous and is also illegal and could result in a £2500 fine.

A team led by Dr Bernd Haenfling from the university's School of Biological, Biomedical and Environmental Science (SoBBES) will be studying this new

Thwaite population using a variety of techniques including the exciting new method of Environmental DNA testing where you can assess species and population density from water samples.

Alan Smith
School of Biological ,Biomedical and Environmental Science

Crucian carp photos taken by Mike Park University of Hull

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MEMBERSHIP RENEWAL REMINDER
Annual subscriptions were due on 1st November 2015
They are £8 per person or £12 for two people living at the same address
Anyone who has not paid by the Open Day 2016 will be removed from the database.
Cheques should be made payable to "The Friends of Thwaite Gardens" and sent to the treasurer, whose contact details are on the last page of this Newsletter.

N.B. We rely on membership fees as our main source of income to allow us to continue with our garden projects.

Please note: new members who have joined on, or after, the Open Day in May 2015 do not have to renew their subscriptions until November 2016.
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PLANT OF THE MONTH ***Osmanthus delavayi***

Not a very well known shrub, yet fairly easy to obtain and grow is this beauty, described in old volumes of Hillier's Manual as "one of China's gems". Hillier's has been a standard work of authority for generations of gardeners and in a reference work covering in excess of 8,000 woody plants, being so described is no mean recommendation.

The reason, perhaps, for the lack of popular renown is because it's beauty is of the subtle delicate sort that does not shout itself to notice, particularly blooming in spring, when there are so many more garish competitors to catch the eye. In April its gracefully arching slender twigs are wreathed in tiny sparkling white flowers, which collectively give a look almost of tufts of snow or heavy rime frost amongst the small, very dark, evergreen leaves. The darkness of the foliage sets off the flowers to particularly fine effect which gives the plant a distinctly 'classy' look. Together with the look it has fragrance – sweet, with perhaps just a touch of spice, never overpowering.

Osmanthus delavayi appears from time to time even in ordinary garden centres and is usually quite small at point of sale. This is a dangerous time for *Osmanthus*, because it is rather slow growing and easily overpowered by more vigorous neighbours, so for a few years it needs to be watched if planted out in a general border. Growing on in a pot for a few seasons or perhaps near a wall will help it become established. Potentially it can grow to over 2m in height and more across, so eventually will need a decent bit of room, although it can be pruned readily if space is at a premium.

Other than this, culture is easy. It will grow in most soils including chalk and although it blooms more heavily in sun, it also does quite well in shade, even surviving under trees. Wall training is a possibility, as is imaginative pruning of a mature specimen into a small tree – like form. Or even formal clipping. It also seems to transplant fairly readily – a task best undertaken in early spring.

This plant's hardiness is almost beyond reproach as it was one of few evergreens hardly damaged by the severe frost of December 2010 in my garden. The only exception to this being the flowers themselves which can be browned off if caught by spring frost. But in this respect they are no worse than Magnolias or Camelias, if anything less noticeably so.

A similar shrub, though larger, less refined but more easily obtained, is *Osmanthus burkwoodii*. It is also well worth considering in any garden. We have two examples of *O*. *delavayi* at Thwaite. A new small one very near the entrance gate and a much larger and older one near the little wooden bridge at the top of Green Wickets.

John Killingbeck March 2016

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Gardens Opening Times Reminder

Monday to Thursday 10am to 3.30pm

Fridays 10am to 3pm, except on Bank Holidays and at other times when the University is closed.

Please note – occasionally, the main gates on Thwaite Street, may be locked before 3pm. If you are in the grounds at the time, please use the Thwaite Hall exit.
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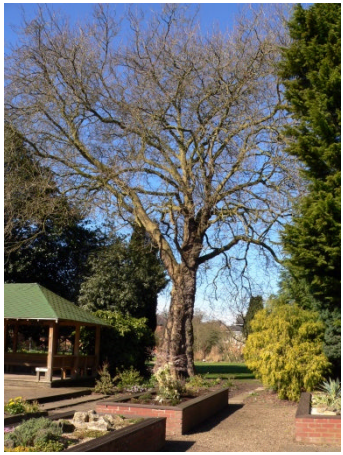
TREES OF THWAITE **LONDON PLANE (*Platanus* x *hispanica*)**



This tree completes our 'Plane look alike' series (Sycamore and Norway Maple) in the previous newsletters, by finally introducing the real thing – the true Plane. Those who are already bewildered by this excursion will be exasperated to know that the American Plane (*Platanus occidentalis*) is known in America as "The Sycamore"! (You might recall, that in Scotland, what we call the Sycamore is sometimes called "The Plane"). The London Plane at Thwaite is easily noticed near the alpine house and raised beds and is often commented on by virtue of its heavily burred trunk.

There are a small number of plane species around the temperate world including S.E. Europe/Western Asia – the home of the so called Oriental Plane or Chennar tree (*Platanus orientalis*). This species has been revered for centuries, since classical times. It was grown for shade in the gardens of ancient Persia and it is claimed that the shelter offered by one specimen, still alive, in Greece, was used by the ancient Greek philosophers under which to teach, a tribute, even if apocryphal, to this tree's general longevity. Trees of impressive dimensions can certainly be found in many village squares in these regions where they act a traditional meeting point for local people. Like all Planes it has large maple like leaves. But a Plane can be easily distinguished from maple by its distinctive bobbles of seeds which dangle conspicuously from the branches for much of the year.

The London Plane (*P*. x *hispanica*) is vastly more common here than the Oriental Plane, and even more so than the American, which for climatic reasons, is scarcely seen at all in Britain. The London Plane is however, a hybrid between these two. A case of east meeting west, they were said to have originally met and crossed in Spain – hence "hispanica". The appellation "London" is hardly justified in the sense that the tree is common over much of Europe – although it is certainly planted in quantity in London and is outstandingly successful as an urban tree. Introduced more than three centuries ago, many original specimens are still going strong. Legend has it that it is the Plane's beautifully dappled flaking bark that makes it so successful by shedding pollution. I am told that this is an "urban myth" however by our own Prof. Roland Enos, no less.

The London Plane has a very robust constitution and in the right conditions is capable of reaching very impressive proportions. Recently, one has been measured at just short of 50m in height, making it officially Britain's tallest broad leaved tree. Like most of Britain's finest Planes, this one grows in the Thames valley area. This is no accident because, like so many of our exotic broadleaves, it enjoys warmer summers than it normally gets in most of Britain and on the whole, big specimens are more widespread on the continent, where towering cathedral like groves and avenues may be encountered in many countries – so long as there is also a reasonable availability of moisture.

But the Plane is so robust that it makes a pretty good showing even in the North of England, though by the time it reaches Scotland it is usually far more subdued, and even in Edinburgh, relatively stunted. Hull's Planes are patchily quite good, with nice examples in e.g. Trippet St. and Linnaeus St. also a few decent avenues like Cottingham Rd. and longest of all, Willerby/Kingston Rd. Those with very long memories might recall that many of Hull's street Planes were regularly pollarded until the 1960's- as is the widespread practice in France and elsewhere, where they are often trained into striking canopies in town squares. Pollarding here ceased long ago and the trees have grown on, but the old cut point can still be seen. Some are now so tall that they have

been topped, e.g. along Princes Ave. Yet, most springs, they protest their misery at our chilly climate by suffering Anthracnose disease, which causes many of the young shoots to wither on the twig. In really bad years like 2012 more than half the entire canopy may die, though whatever the damage, recovery occurs as temperatures rise toward summer.

Locally, however, the most consistently good Planes are to be found in York, possibly because being inland, summer temperatures are a little higher. At the rear of the Museum Gardens, behind the bowling green, grows an outstanding specimen, almost in the Thames valley league. I cannot say for sure but I would be surprised if this wasn't the finest Plane in Northern England. The nearby Judges Lodging has one of few specimens of Oriental Plane in this area.

There are a number of clones of London Plane, mostly unnamed, but subtly different in leaf shape and growth habit. One is 'Pyramidalis' – commonest for the usual reason that it has a relatively upright growth habit in youth (which it soon loses) so thought suitable for urban sites. Unfortunately it is one of the least noble forms with a heavily burred trunk, coarser leaves and less dappled bark than average. Our Thwaite tree is probably of this type. Many of the best York trees are of a finer type; taller, whiter barked with more elegantly cut foliage.

Of the Oriental Plane, little is seen in East Yorks. However, at "The Lawns" university campus two beautiful young trees grow. Not only that but one at least is the form 'Digitata' which has uniquely elegant narrow fingered leaf lobes. More enigmatically, though they may only be London clones, a few of Hull's street Planes so closely resemble *P. orientalis*, that they may indeed be the real thing. Possibly planted in error, they do not seem to thrive so well as others. A feature of Oriental Planes is the fragrance of their foliage – less noticeable in London Planes.

John Killingbeck March 2016

GARDENER'S QUESTION TIME - WHY DO WE DIG THE SOIL?

This is a question that to some gardeners might seem foolish, so ingrained is the practice and tradition of digging. It is elevated to almost an art form in many older gardening books including those setting the standard of horticultural excellence such as Royal Horticultural Society manuals. A perusal of such works will give the reader insight into the arcane practices of "single digging", "bastard trenching" and the like. Unbeknown to many, there is a correct way to hold and apply the spade, to invert the soil without spilling it, as well as an appropriate way to apply manure. The finished task will be pictured as a perfectly regular turned plot devoid of unevenness or a single misplaced clod.

Relatively few gardeners can be said to be skilled in such arts today and even some professional ones seem unaware that such skills exist. But although digging nowadays is typically far more haphazard (and often done by machine), it nevertheless continues as largely unquestioned practice. But do we really need to dig and if not, where might this idea have originated?

One can start by observing that, in nature, no digging occurs – yet plants thrive. The soil is circulated, aerated and fertilised certainly but in a relatively subtle way by earthworms, or at worst perhaps, rooting pigs. Agriculture is perhaps the origin of ploughing of which digging is the gardener's version. Ploughing arose because staple grain crops are annuals and as such require a disturbed soil without competition from other plants. Yet ploughing has been the ruination of the world's soils with entire landscapes from tropical landslips, to Kansas dustbowls, to British moorlands as testament to the folly of exposing soils to the elements. Must gardeners do the same?

There seems little question that a garden of perennials, shrubs and trees should be left largely undug. Digging will only damage surface feeding roots, kill earthworms and impoverish the soil micro fauna which feeds the plants. Disturbance will also encourage 'weeds' which are ecologically adapted to grow on bare unsettled earth. Mulching with organic matter will be enough to nourish everything. Only during the act of planting need the spade be applied, though even here much can be achieved by naturalised seeding and spread which the lack of digging in turn encourages.

But what about annuals and vegetables? Here opinion is be more divided with traditionalists preferring a clean soil surface to plant their crops. Yet, there is a strong body of opinion that even this is ultimately counter-productive and that yields might be higher if crops are set into undisturbed earthworm rich soils, weed controlled and nourished by surface mulch. Even some farmers have adopted “minimal cultivation” techniques with success.

There is of course a large community of gardeners for whom bare tilled earth between (and in some extreme cases, to the exclusion of!) plants, is itself an aesthetically pleasing thing, particularly to those for whom bedding plants are the staple. There was even once a theory of “the dust tilth” in which it was the aim to daily hoe the soil surface, which constantly destroyed all weed germination and in principle insulated moisture from evaporation beneath. To such people as these I say, go ahead if you have the time and inclination but don’t expect the plants to enjoy it as much as you do.

What about new gardens? You might be lucky enough to acquire a garden of good land. But many gardens in new properties consist of a massively disturbed and compressed soil/subsoil mix concealed by a veneer of newly laid turf. Digging is a good way of exploring the extent of this destruction. It is not unusual to find a layer of good topsoil buried at depth beneath a smeared crust of subsoil and builders rubble. On clay, this crust may be enough to cause minor flooding, which once pierced dramatically improves surface drainage. In cases like these, digging can certainly not make worse what is already near ruin and will give the opportunity and means to heal and restore the soil aeration, fertility, structure and eventually bring new life to it.

John Killingbeck, March 2016

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Diary DATES

Open Day

Sunday 22nd May 11am to 4pm
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What is a Tree?

(Taken from the leaflet "De Hortus" from Amsterdam Botanical Gardens) www.dehortus.nl

All trees are unique, whether they are large, small, old, young, evergreen or beautifully flowering. Trees existed long before man walked the earth and many live longer than any human beings. Trees often symbolise the circle of life, because of their renaissance in spring, and their decline in autumn. Trees have a special meaning for many people: they evoke emotions or a beautiful memory, or offer a nice spot to sit and relax.

Trees as a Habitat

Everyone who takes the time to sit under a tree for a while will agree: a tree is full of life. Birds, for example, fly on and off. They build nests in trees and use the branches as perches from which they can survey the surroundings. Rodents and birds use trees as a source of nourishment: they eat the fruit and seeds borne by the tree or, more often, when they have fallen to the ground. Bees are attracted to the flowers' nectar, while other insects eat the leaves. A variety of bugs live inside or on trees, where they form a food source for some birds. As a rule, trees in their native range foster a far richer insect community than exotic species do.

Trees as Air Filters

Photosynthesis takes place in trees as it does in all green plants. Under the influence of (sun) light, carbon dioxide and water are transformed into sugars and oxygen. Sugars are used by the tree as food, while oxygen is released as a waste product. This oxygen is used by animals and humans for their respiration, and machines (cars!) for their combustion. During this process, the reverse reaction occurs and carbon dioxide is released. Plants, therefore, are essential for maintaining the balance between oxygen and carbon dioxide. That is why forests are called the "lungs" of the earth. Trees have a number of characteristics that are appreciated by the inhabitants of a warm,

polluted city. They evaporate water, which results in a slightly lower temperature in the tree's crown compared to the immediate surroundings. Therefore it can be pleasantly cool under trees in the summer. Another much appreciated characteristic is that trees collect large amounts of dust and dirt particles on their enormous leave surface. Did you ever notice that a street without trees is much dustier than one with trees?

Tree Characteristics

A tree, by definition, is a woody plant with a well-defined stem. Another characteristic of a tree is the presence of secondary growth. Trees have a thin layer of persistently meristematic tissue between the bark and the wood, called the cambium. This cambium produces new bark cells in the outside (phloem) and new woody cells (xylem) to the inside. Consequently, the trunk, branches and roots increase in size every year. This process speeds up in spring (large cells are formed) slows down in summer and autumn (small cells are formed) and stops completely in winter. In a cross-section of a tree, one can see this variation in growth, the so-called annual rings. By counting the number of rings, one can estimate the age of the tree.

Annie Bourton Card, March 2016

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We welcome any contributions from members, of articles, photographs, letters etc. to future copies of the Newsletter, so if you would like something including, please contact the Editor, whose details are at the end of this Newsletter
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