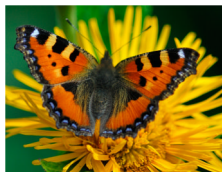


Issue No. 31

November 2011

Friends of Thwaite Gardens Newsletter



PLANT OF THE MONTH - WINTER 2011 *Kleinia neriifolia*



For this newsletter, I have chosen a glasshouse plant for a change. It is to be found in the Friends “Desert House” which features cacti and other succulents from various parts of the world but mostly America and Southern Africa which are particularly famous for their desert flora. However, this particular plant originates from well outside the better known succulent hot –spots and comes from the Canary islands.

A reason for featuring the plant is that it was kindly donated by a Friends member, whose name, much to my shame, I am unable to remember. It is quite an unusual plant and if he is reading this article he might be pleased to know that, not only is the plant flourishing, but that it flowered for the first time this autumn. This is the second reason for it being featured on this occasion.

Kleinia neriifolia is only just a succulent - in that it has only slightly fleshy leaves, similar in look to *Nerium oleander* – the well known Rosebay oleander (hence the name “*neriifolia*” – leaves like an oleander). It is at its most leafy (unexpectedly perhaps) during the winter half of the year. This is because, in the Canaries, winter is the “rainy season” whilst summer, except on windward facing mountains, is very dry as well as quite hot. So, because the plant grows in the arid southern lowlands of

the islands, to survive the drought, it sheds its leaves in summer and presents, as a consequence, a rather odd looking, gaunt and strangely thick branched shrub at that season. The thick branches are able to store water however and because they contain chlorophyll, are still able to photosynthesise without leaves (rather like a cactus).

Towards autumn, the plant begins to stir into growth again in anticipation of rain. However, the first signs of life are not leaf shoots but are the strange, yellowish, slightly fluffy, petal less flower heads, which because of the odd appearance of the plant are quite eye catching. They seem fairly scentless and are presumably pollinated by insects of some sort.

The majority of the desert plants in our collection are typical in that they require summer rainfall and winter drought. So we have to take special care of those “out of step” species like *Kleinia* which require the reverse of the usual. For this we have a system of “yellow labels” – indicating no water in summer!

For those of you with a passion for plants, the Canary islands (perhaps Tenerife in particular) are well worth a visit. Because of the remarkable volcanic terrain, the islands have an amazing range of habitats – from desert to rainforest and an unearthly high altitude dry plateau. Each area has a rich variety of plant species many of them endemic.

The islands have been described as “the Galapagos of the Atlantic” and are similarly a study in the evolutionary divergence of a limited number of aboriginal colonisers. Thus there are such things as arborescent (tree like) “dandylions” and shrubby sorrels for example, many of which have developed other special adaptations. Originally there were giant lizards over a metre long and giant tortoises too. Unfortunately these are now extinct.

John Killingbeck

SHADES OF AUTUMN



*Sunshine flickers through the autumn woodland
Dancing on the ancient ferns way below
From verdant green the leaves turn, from burnt yellow
And russet red, to brown, falling crisp and burnt upon the
cooling earth*

*The smell of distant bonfires fills the air
Rekindling lost “memories” of days gone by
Convolvulus entwined with rambling rose
And ‘vie’ with sour sloe and prickly briar along the
thickening hedgerows*

*The harvest has been safely gathered in
The people “sing” their songs of heartfelt thanks
Now autumn puts on her gown of perfect hues
The colours so “spectacular”, ‘warm the heart’, as winter
waits to ‘bite’.*

*Heather Overfield
Cottingham, East Yorkshire*

TREES OF THWAITE NO.11 - ALGERIAN OAK (*Quercus canariensis*)



This tree is one of the more handsome- and in winter, distinctive and eye catching- of the Thwaite collection. For those seeking it out, it is found in the western woodland, adjacent to, but well back from, the railway line. Like so many of the rare trees in this wood, it is badly cramped by commoner companions which need thinning out. However it seems to have held its own quite well and is a reasonably good specimen.

The tree has another common name – Mirbeck’s Oak. Unfortunately I do not know the origin of that particular name. Algerian Oak, by contrast, refers to the somewhat improbable idea (given that Algeria is predominantly of the Sahara Desert), that it may be native to that country and elsewhere in North Africa. People with a reasonable knowledge of geography will, nevertheless, realise that the Atlas mountains rise along the northern edge of the western Sahara and being much higher, cooler and wetter than their surroundings provide a good home for many cool temperate plants, a number of which can be grown in Britain. The best known of these might be the almost ubiquitous Blue Atlas Cedar (of which there are several at Thwaite). The oak’s native range also extends to lands on the northern side of the Strait of Gibraltar – southern Spain and Portugal.

In summer, Mirbeck’s Oak may not stand out very much from an ordinary oak – except that a more careful glance will suggest a tree of unusually fine and luxuriant foliage. On closer inspection this proves to be of

beautifully formed and healthy looking leaves, much larger than those of common oak, though unmistakeably oak – like in shape. The habit of the tree also differs from that of English oak. That the two species are closely related, however, is evidenced by the fact that they hybridise freely. On the rare occasions when Mirbeck's produces any acorns in Britain– they are said, almost invariably, to produce hybrids.

Algerian Oak really comes into its own in early winter due to the somewhat unlikely fact (looking at the size and thinness of its leaves) that it is evergreen. It is easy to pick out the Thwaite tree at this season. In winter it is arguably one of the finest of broad leaved evergreens that can be grown in Britain. It also seems to be very hardy and sustained little damage last winter for example. To be more precise, this tree is “semi evergreen”, which means much of the foliage may be shed gradually through the winter, depending on circumstances. I have actually seen Algerian Oak myself in the wild in southern Spain, where, by April, most of the trees were fairly leafless.

Being semi evergreen is a useful trait in a climate that is usually mild but occasionally cold. There seems to be a slight tendency towards being semi evergreen in a number of oaks including the two British native species. Many readers will already know that English Oak (*Q.robur*) is one of the last trees to shed in autumn – often green well into November. Yet within any population there are usually a few that are exceptionally late. One tree at Bishop Burton College, for example, is regularly green almost until Xmas. I once came across an oak in Herefordshire still green after New Year. I even know of one sapling of *Q.petraea* (the other native sp.), planted near Lund village, that remains fairly green all winter! It will be interesting to see if it retains this trait into maturity. Turkey Oak(*Q.cerris*) hybridised with Cork Oak (*Q.suber*)and back crossed again, may also produce offspring displaying a spectrum of degrees of “evergreenness” (if there is such a word!)

It is by such means as this sort of individual genetic variation and sometimes hybridisation, that plants are able to adapt to variable conditions, climate change and even to produce potential new species.

John Killingbeck

FRESHWATER AND BOG PLANTS IN TRIANGULAR TANKS AT THE BOTANIC GARDENS

The three fibre-glass tanks at the Botanic Gardens immediately north of the glasshouses are a good place to see freshwater and bog plants. The tanks are equilateral triangles with sides about 210 cm and depth about 55 cm. They are in a north-south row; the north and south tanks are water filled and have submerged and floating-leaved aquatic plants while the centre tank is filled with waterlogged peat and has a bog-plant community.

Vascular plants observed in the tanks during April-September 2011 are listed in Table 1. Perhaps the most interesting freshwater plant is Water-soldier which, with its emergent rosettes of spiny linear-lanceolate leaves, is dominant in the north tank. This plant is native in East Yorkshire (*Flora of the East Riding of Yorkshire*, Crackles E. 1990, Hull University Press/Humberside County Council, Hull) but there are no post 1986 records (*New Atlas of the British and Irish Flora*, Preston C.D., Pearman D.A. & Dines T.D. 2002, Oxford University Press, Oxford). It is, however, sold by aquarium shops, probably originating from non-UK sources, and is grown in garden ponds.



Water-soldier with a pink-flowered cultivar of White Water-lily and Common Duckweed in the water-filled north tank, July 2011

Curly Waterweed is a submerged aquatic plant, also sold by aquarium shops, which has become established in the wild in East Yorkshire; *New Atlas* has this plant recorded in six 10 km x 10 km squares in vice-county 61 (South-east Yorkshire) and it sometimes occurs in the wild in abundance, for example in a gravel-pit pond at Brandesburton. It originates from South Africa and was first recorded in the UK in 1944. Canadian Waterweed, distinguishable from Curly

Waterweed by its opposite rather than spirally-arranged leaves, is another submerged non-native plant that was first recorded in the UK in 1836 and is widespread in East Yorkshire, although it is perhaps now less common than Nuttall's Waterweed *Elodea nuttallii*, also from North America but not recorded till 1966. The White Water-lily is a pink-flowered cultivar. Rigid Hornwort, Common Duckweed and Ivy-leaved Duckweed are native plants that are widespread at freshwater sites throughout East Yorkshire. Curled Pondweed *Potamogeton crispus*, also native and widespread in East Yorkshire, which was present in summer 2008 and 2009 was not found in 2010 or 2011.

The boggy middle tank has abundant Bog Moss *Sphagnum capillifolium* while Haircap *Polytrichum* sp. and other mosses are also present. Many of the vascular plants are exotics; interesting but out of context and therefore not necessarily straightforward to identify. Some of them were described by Killingbeck J. (*Friends of Thwaite Gardens Newsletter* 28, 4-5, 2010) who focussed on the Huntsman's Horn or Purple Pitcherplant *Sarracenia purpurea*. Indeed there are four species of pitcher plant from North America that are conspicuous in this tank. My identifications of these were made using *Carnivorous Plants* (Slack A. 1979, Ebury Press, London) and with help from John Killingbeck. The Huntsman's Horn has pitchers, which are modified leaves, about 25 cm long that tend to the horizontal; they have a broad wing, about 2 cm wide, along the ventral surface of the pitcher and have an wide-open mouth resembling a drinking horn, 5-6 cm across. There is an upright hood which does not shield the mouth from rain; hence the pitchers tend to be partially filled with rain water.



Huntsman's Horn with Heather in the boggy middle tank, July 2011

White Pitcherplant has pitchers that are also about 25 cm long but narrower and more upright, the ventral wing is only about 5-7 mm wide, the mouth is 2-3 cm across and the hood is curled over to protect it from rain. Parrot Pitcherplant has smaller pitchers, only about 17 cm long and 1 cm wide but with a broad ventral wing up to 2 cm wide. Notably the hood is not a separate structure but rather is an overarching cowl which more or less covers the pitcher mouth. The Cobra Lily has pitchers about 15 cm high and about 2 cm wide; it belongs to a different genus (*Darlingtonia*) and has a characteristic arrangement of arched hood and forked nectary, resembling a snake's head and tongue, at the mouth of the pitcher. Not seen by me was a further carnivorous plant, the Venus Flytrap (*Dionaea muscipula*), which John Killingbeck tells me reappeared in 2011 after an absence.



*Cobra Lily with Bog Moss and American Cranberry in the boggy middle tank,
September 2011*

Also growing in the boggy tank are several shrubs of heathland and bog habitats. A conspicuous plant is American Cranberry which, with its red berries about 11 mm diameter and leaves up to 12 mm long, has the appearance of a more robust version of the native Cranberry *Vaccinium oxycoccos*. Also from North America is Checkerberry, a red-berried creeping shrub. Bog Rosemary is also present although this is likely to be a cultivar. There are also plants here which are irregularly distributed at acid sites towards the western edge of East Yorkshire. These include Heather and Cross-leaved Heath, although the cross-leaved Heath appears to be a cultivar because its flowers are a brighter red-purple than wild plants; others are Common Cottongrass and Marsh Pennywort. Bogbean *Menyanthes trifoliata*, which was observed in May 2008, seems no longer to be present.

Table 1. Vascular plants in the triangular tanks, April-September 2011

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|---|
| <p>Freshwater plants in the water-filled tanks</p> <p><i>Ceratophyllum demersum</i> Rigid Hornwort</p> <p><i>Elodea canadensis</i> Canadian Waterweed</p> <p><i>Lagarosiphon major</i> Curly Waterweed</p> <p><i>Lemna minor</i> Common Duckweed</p> <p><i>Lemna trisulca</i> Ivy-leaved Duckweed</p> <p><i>Nymphaea alba</i> White Water-lily</p> <p><i>Stratiotes aloides</i> Water-soldier</p> |
| <p>Plants in the boggy middle tank</p> <p>Pitcherplants</p> <p><i>Darlingtonia californica</i> Cobra Lily</p> <p><i>Sarracenia leucophylla</i> White Pitcherplant</p> <p><i>Sarracenia psittacina</i> Parrot Pitcherplant</p> <p><i>Sarracenia purpurea</i> Purple Pitcherplant/Huntsman's Horn</p> <p>Other heath/bog plants</p> <p><i>Andromeda polifolia</i> Bog-rosemary</p> <p><i>Calluna vulgaris</i> Heather</p> <p><i>Erica tetralix</i> Cross-leaved Heath</p> <p><i>Eriophorum angustifolium</i> Common Cottongrass</p> <p><i>Gaultheria procumbens</i> Checkerberry</p> <p><i>Hydrocotyle vulgaris</i> Marsh Pennywort</p> <p><i>Vaccinium macrocarpon</i> American Cranberry</p> |

Acknowledgement. I am grateful to John Killingbeck for his revision of my tentative plant identifications.

Ray Goulder (r.goulder@hull.ac.uk)

Helpers always needed for all the ongoing project work.

This need not be anything strenuous, it might just be watering or weeding and could be done any time during the normal University working week.

For details see Pam or Vic

News from the University

Interpretation materials for the gardens

In April 2011, two members of staff from the University, Lindsey Atkinson and Janet Gibbs (Centre for Educational Studies), were successful in obtaining funding from the Stanley Smith (UK) Horticultural Trust for the development of interpretation materials for the gardens. Twenty specimen trees have been identified for labelling and to form part of a tree trail. In addition, three interpretation boards have been designed with the themes; Ornamental Gardens, Lake Margins and Woodland. The tree labels have arrived and will be put up shortly. The interpretation boards have been ordered and should be with us soon. The funding will also provide a donation towards the development of the Evolution Greenhouse.

Thanks to all those who contributed to the development of these materials - We hope they will add to everyone's enjoyment of the gardens.

In addition to the above, we have just heard that the Ferens Education Trust will support an Open Air Classroom for the gardens for the full sum requested (£5000) but they wish to do this in their next funding year, commencing 1 August 2012. This gives us time therefore to gather other funding and consult on designs.

More details will be given in the next Newsletter.

Dr Lindsey Atkinson
University of Hull

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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 on the back page of this Newsletter.

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

Rare Resident of Thwaite gardens!



As reported in a Newsletter of February 2010, the brown long-eared bat, the first seen in the area, had been recorded at the gardens in 2009. Last year when the bat boxes were checked there was no evidence of any bats nesting at Thwaite. However this year this little fellow was found in one of the boxes!

Photograph taken by Julia Simpson, with a helping hand (sic) from Alan Smith, both members of the Department of Biological Sciences.



MEMBERSHIP RENEWAL REMINDER

Annual subscriptions were due on 1st November 2011. They remain at £7 per person or £10 for two people living at the same address. Anyone who has not paid since 2010 will be deleted from the database with immediate effect.

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.

***Please note:* new members who have joined on, or after, the Open Day in May 2011 do not have to renew their subscriptions until November 2012.**

Thwaite Gardens – “a worm’s eye” or volunteers view

I first visited the gardens several years ago one Open Day and was amazed and immediately hooked by this hidden gem and subsequently joined the Friends at one of the evening presentations.

I am not what you call a gardener, I do not have green fingers, but I am always willing to learn and I have progressed. However I do find it useful to operate on the principle “if in doubt don’t pull it out” until checking with someone. Fortunately we have very knowledgeable volunteers at Thwaite (namely John, Pam, Pat and Jean H) who keep me right. I must however confess that last year, when tidying the herb garden with Lyn prior to Open Day, the Good King Henry (or Lincolnshire spinach) nearly met with an unfortunate end – it looked like a dock to me - a good thing I checked with John as he could tell what it was just by looking at a leaf. Fortunately poor thing was hastily replanted and still survives. Phew!!

What do I do? Well anything and everything that needs doing; weeding (of course) any of the various beds, helping with any digging and planting new plants; learn what, when and how plants can be pruned or trimmed, The fantastic improvement to the roses flowering on the pergola is due to the attention they received last year from Barbara, Pat, Norman and myself. I enjoy working in the herb garden and sometimes I water the Fernery and/or Cacti House if it is necessary. Not all on the same day I must add. When I have used up all of my energy I stop - going on might just mean the difference between the work being a pleasure and a chore. I can always go and see what the others are up to and see and enjoy the results of all our efforts.

I have learned a great deal about all sorts of gardening matters and can now recognise (and hopefully name) an ever so slightly increasing number of plants. I do, however, have to be aware of info. overload – no good if as fast as some info. is going in, other previously acquired info. drops out of the little grey cells. However one piece of information committed to memory, hopefully never to be forgotten, is the name of the very pretty tree at the top end of the long border on the right as you come in the main gate – *Cornus Controversa Variegata* (Wedding Cake Tree) – looks a

bit like one too. It is one of my favourites and when you next visit the Gardens check it out, it is so pretty.

We are now a band of some 14 hardworking volunteers and if we can we turn up on Friday mornings at 10 o'clock, if we can't make it one week well there is always the next week – I mean life goes on and we all have other demands on our time. We take care of several very varied and interesting areas within the Gardens so there is always something needing our attention and always someone to work alongside. Now we even have a coffee break about 11'ish if June is there to spoil us.

To all my co-volunteers may I say how much I enjoy their company and thank you for the friendship and the laughs. Long may it be fine and dry on Friday mornings at Thwaite Gardens, preferably with some sunshine too.

For more information you can ring Pam Bailey (Thwaite Volunteers' invaluable Secretary) on 843304 or just come along on a Friday morning.

Jean Major

Nov. 2011

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Next date for your diary!

31st January 2012

Cottingham Methodist Hall, 7.30

Tony Rymer – The Alpine Society

80 Hardy Alpines, Dwarf Bulbs and Small
Perennials

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