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Plant Hunting Along The Eastern Border Of Turkey (Talk Given To The SLBI)

My husband John and I were fortunate to have made two visits to eastern Turkey. This largely mountainous region borders on Syria, Iraq, Iran, Armenia and Georgia. There was political unrest in the area during our visit and we were warned to keep our heads below the skyline while climbing the rocky mountainsides in search of flowers. Sometimes we could see Kurdish tanks below us in the valleys. We were fortunate to have that window of opportunity to visit an area noted for its spring flowering bulbs because terrorist activity has increased significantly since then. Earlier this year Britons were warned against non-essential travel in the region due to terrorist activity.

On our first visit we toured cultural sites in south-eastern Turkey. Then in 2007 we joined a group led by Greentours during the last week in May and the first week in June, which took us further north into the region surrounding Lake Van and Mount Ararat.

I began my lecture with photos of Sanliurfa, or Urfa, a town that is noted for its biblical associations. In ancient times it was known as Edessa. History tells us that Abraham's body was burnt on a funeral pyre here. The wind blew his ashes into a sacred pool, where they turned into golden carp. The site of the early Christian church has been

replaced by a mosque, elegant arcades and formal gardens. Today the town has become notorious as a departure place for people crossing the border into Syria to join the jihadi terrorists.

We then travelled a few miles further south to another ancient town called Harran which largely in ruins. It has a large number of traditional adobe 'beehive houses' or 'trulli', which are domed clay buildings constructed without wood. Romans, Arabs and Mongols have ruled the city in times past. It was formerly a holy place of major significance and was mentioned in Genesis, where there is a description of Abraham's journey to the Promised Land.

And Terah took Abram and his son, and Lot the son of Hara his son's son, and Sarai his daughter-in-law, his son Abram's wife; and they went forth with them from Ur of the Chaldees, to go into the land of Canaan; and they came unto Harran and dwelt there.

Greentours had chosen an optimum time to visit the region. As we made our way through the valleys some of the fields were colourful with scarlet poppies. Although such scenes are familiar, the poppies were different from those we have seen in Kent. *Papaver persicum* with salmon flowers was very choice. Although we saw few orchids, we found some satisfyingly large meadows full of different forms of *Dactylorhiza umbrosa*. Among them we found a variety of our common spotted orchid called *Dactylorhiza fuchsii* var. *rhodochila*. Its name indicates that it has red leaves. The flowers have a distinctive cerise lip. When this variety turned up on Downe Bank in 2012 I recognised it immediately, although it had green leaves. The Downe Bank specimen was a single plant and it was still producing flowers in June this year. Possibly its seeds were brought onto the nature reserve on feet or machinery because it also occurs at



Mount Ararat framed by a row of *Iris iberica* : Photograph by John and Irene Palmer



Puschkinia scilloides : Photograph by John and Irene Palmer

the Kent Wildlife Trust's Sevenoaks Reserve.

Turkey has a very diverse flora but during our visit it was noticeable that often a limited number of species dominated the lowland meadows and we found a similar situation at higher altitude, where red tulips might be found on one rocky slope and pink on another. There were striking displays in the meadows of pale mauve *Gladiolus kotschyanus* and deep purple *Gladiolus atroviolaceus* in the meadows, while one was dominated by the pink flowers of *Primula auriculata*.

As keen photographers we were mostly interested in photographing some of the more attractive and unusual flowers. Two members of the Boraginaceae were particularly striking. The pink flowers of *Rindera lanata* emerged from a mass of silvery hairs, while the backlit clusters of stamens of *Solenanthus circinnatus* made it very attractive. A handsome thistle *Gundelia tournefortii* also demanded our attention. The creamy white flowers of a henbane, *Hyoscyamus albus* were familiar but we also found another species with large clusters of pinkish mauve flowers with a reticulated pattern on the petals. Finding *Rosa foetida*, the parent of some of our yellow roses, was another thrill. Apparently some consider that it has an unpleasant smell that is similar to boiled linseed oil.

Amongst other distinctive plants that caught our eye, the most familiar of these was *Pedicularis caucasica*, a large yellow-flowered lousewort. It belonged formerly to the Scrophulariaceae and is now a member of the broomrape family. In addition to this plant we were very lucky to find the scarlet flowered *Phelypaea tournefortii* another member of the broomrape family. This rarity was growing beside the magnificent Muradiye waterfall. *Lagotis stolonifera* (Scrophulariaceae) a low plant with bluebell-like leaves was another choice species. Its blue flowers had petals that reminded me of Australian *Stylidium* spp. The pink pods of *Leontice leontopetalum* gave no clue to the family to which this plant belonged. When it is in flowers its small yellow flowers give the game away because they can be recognised immediately as a member of the *Berberis* family. According to Rodney Burton, this plant roots very deeply in stony soil and needs occasional disturbance. It was much admired but perhaps is unsuitable for the SLBI garden. *Adonis wolgonensis* was another treasure. We had to climb a very steep hillside to photograph its large flower clumps that reminded me of a robust winter aconite. We had seen its scarlet relative *Adonis aestivalis*, at lower altitude. Near the snow line some of the highlights were a Pasque flower *Pulsatilla albana* and rock jasmine *Androsace villosa*, a tiny gem with small white flowers on silvery cushions that is valued by alpine gardeners.

We visited three historic sites during the tour that were particularly impressive. The ruined Ishak Pasha Palace stood high on a rocky plateau. It once guarded the ancient Silk Route from China. Hosap Castle at Van was built on the side of a steep cliff. Now ruined it was hard to imagine its former magnificence. Remarkably, the carved exterior of an Armenian church on Akdamar Island in Lake Van was intact but one fears for its future in view of the desecration of ancient sites being carried out in Syria by Islamic State. Biblical carvings on the exterior walls showed Mary and Jesus and David with his sling standing beside Goliath. To my way of thinking

they appeared to be dressed like crusaders. There was also a delightful representation of Jonah being swallowed by a whale. There are several of these fine churches in the region that have been spared because they were built in isolated positions. Elsewhere we noticed stones used in some of the buildings in the villages we visited had Christian symbols indicating they had been removed from former churches.

But it was the plants with bulbs, tubers or rhizomes that were the main focus of our visit. As we moved from one rocky mountainside near the snowline to another, the species were constantly changing. We found pink tulips (*Tulipa humilis*) on one slope and red tulips (*Tulipa julia*) elsewhere. Yellow celandines and thousands of clustered pale blue flower spikes of *Puschkinia scilloides* carpeted another slope. The large mauve-pink flowers of *Merendera kurdica* set off by fleshy bronze leaves were particularly handsome. The list grew daily as we added white *Ornithogalum narbonense*, blue *Bellevallia paradoxa* and blue *Ixiolirion tataricum*. Living up to their name, we found spectacular golden spikes of *Eremurus spectabilis* in a Muslim cemetery.

Aside from these plants, opinions were divided as to whether it was



Iris iberica : Photograph by John and Irene Palmer

worth going to the region simply to see the great range of fritillaries or the equally magnificent range of irises. Some of the fritillaries had relatively small flowers, such as the yellow *Fritillaria minima* and red and purple *F. pinardii* and *F. zagrica*. Others, such as *F. crassifolia* had more globular flower heads and were similar in character to our native species, except here they were on a mountainside and not in a meadow. For me it was the iris family that stole the show. Yellow *Iris caucasica*, bronze *Iris sari*, purple *Iris barnumae* and mauve and purple *Iris paradoxa*, one of the most sought-after was growing in the furrows of an arable field. Most sublime of all was *Iris iberica*, with its creamy white standards and contrasting brown falls. Late one afternoon as our party were returning to our hotel I spotted some of these plants across the road. I found a spot where, if I lay on my stomach, I could get a good view of snow-capped Mount Ararat framed by a row of *Iris iberica* and avoid two telegraph poles. The photograph provided the perfect ending to my talk because it brought the botany and the ancient history of the area together. Not only did it show this lovely Iris in a grand setting but Mount Ararat itself is reputed to be the place where Noah landed with his ark after the flood.

Irene Palmer

Saving The Syrian Seedbank

My lecture touched on the increasing violence along Turkey's border with Syria. We are all too familiar with activities of the Islamic State who are responsible for demolishing some of Syria's most famous archaeological sites. One wise man immediately thought about seeds when violence broke out. Although this happened initially in the south in 2011, Ahmed Amri realised it wouldn't take long to spread. He was responsible for a very valuable resource, some 20,000 samples of seeds that were sitting in cold storage just south of Aleppo. He knew it wouldn't take long for them to be rendered useless, although the facility had backup generators. Although many seeds had already been distributed to gene banks in other countries, a significant number remained. These not only held the key to

the nation's eventual recovery but would be needed for the development of crops suitable for arid regions in the future.

Staff at the centre did everything possible to take the seeds over the border. Some were taken to Turkey, some to the Lebanon and some to the Svalbard Seed Vault in Norway. At one point the area around the genebank was controlled by two competing armed groups and there were kidnappings. The last shipment of Syrian seeds arrived in Svalbard in March 2014, by which time many of the staff had relocated. The Norwegian genebank is beyond the Arctic Circle. It is considered to be the "backup to the backup" and is designed to come to the rescue in case of worldwide catastrophic crop failures.

Today 99.9 percent of the collection is stored outside Syria. The institution where Amri worked was awarded the Gregor Mendel Innovation Prize for rescuing and preserving the genebank. The story doesn't end here because it has opened the eyes of scientists to the need for ensuring these collections are viable, especially because some of the seed samples are quite small. It was clear it wasn't wise to put all their seeds in one centre in a country. Currently there are 11 international genebanks which preserve more than 700,000 varieties of the world's 17 most important crops. Hand in hand with this resource, work is going ahead to grow samples of ancient varieties of seeds and those that are vital food sources, to check their viability and distribute them more widely.

Irene Palmer

Herbs, History and Identification - Day School

Letta Jones' one-day herb course on 26 August at the Institute was sparsely attended, possibly because of the heavy rain and transport problems, but those who made it enjoyed a fact-filled day, though forays out to the garden were curtailed by the downpours.

Letta told us the word Herb has no real scientific basis – it usually includes more than just herbaceous (non woody) plants, as the berries and other parts of some trees - elder (*Sambucus nigra*), shrubs - witch hazel (*Hamamelis* sp.) and other kinds of plants are often included. Herbs also include more than just useful and edible or medicinal plants, as some are definitely for ornamental or aesthetic use.

She covered the history of herbalists and herbal writings extensively and how ideas have changed over the centuries. We looked at various very poisonous plants like deadly nightshade (*Atropa belladonna*) and foxglove (*Digitalis*), which are still used medicinally, and learned that rabbits and pigs can ingest deadly nightshade with no ill effects.

The part of the day most enjoyed by the students was looking a selected number of SLBI herbarium samples in great detail, including the notations and what they mean (sometimes not at all obvious). We noted that many of the names have changed since the early samples were laid down. We also observed the difference between meadowsweet (*Filipendula ulmaria*) and dropwort (*Filipendula vulgaris*) and examined the medicinal and other uses of burdock (*Arctium lappa*), evening primrose (*Oenothera biennis*) and arnica (*Arnica montana*), to name but a few.



Atropa belladonna and *Digitalis purpurea* – SLBI Herbarium specimens : Photograph by Caroline Pankhurst

Veronica Hammerstone

Children's education 2015, a Botanical Bake Off and Victorian Costumes!

The last two children's holiday arts and crafts activities have seen a large increase in numbers. Many visitors are



Little miniature gardeners hard at work



but with some beautiful results

now coming on a regular basis, and we start recognising and getting to know more local children and their carers.

In particular the August summer holiday saw 32 keen children engaging in a miniature garden activity. The feedback from parents and children was great, and some parents are telling us that their children are still managing to maintain and look after their mini gardens, thus encouraging children to look after and care for their plants.

An equally high turnout was achieved for the October half-term activity when children got busy making seed garlands.

Due to the high numbers during these two activities, the children's activities have now been made bookable events.

Furthermore, the SLBI offered for the first time a 'Botanical Bake Off', thanks to the great idea and initiative of one of our events and education volunteers, Emily Gait. Just 4 days after the 'Great British Bake Off' TV series had come to a close, this event attracted a good number of keen local bakers of all ages creating a range of truly stunning and tasty cakes and pastries. In true 'Bake Off' style, the



creations were judged by design and taste by visitors who had not entered into the competition.

It was a very close call, as we saw some amazing baking and decoration skills, ranging from a uniquely designed carrot cake to a beautifully floral decorated Victorian sponge and tasty apple tarts, presented in a vasculum and many more.

The year finished on a festive note, with children making willow stars and wreaths in the run up to Christmas.

The activity was well received, and appreciated by parents who were pleased to see children creating pieces of art work entirely made of natural material.

The new school programmes are in place and available for schools to view on the website. Whilst we have been relatively quiet during autumn in regards to school visits, we have already received a good number of new bookings for the spring and summer terms 2016. Each school class who is visiting us is now receiving a 'SLBI treasure box' in which to place the art work and other pieces children create during their 2 hour sessions at the SLBI. It also includes information about our holiday activities on offer to be distributed at their school.

More children's holiday activities, school visits and all age events are in the planning, including an event to mark the end of the HLF project, which will be a Victorian costume event, with its focus on Victorian fancy dress, Victorian food, children's games,



A very creative and tasty carrot cake version... and apple tarts in a vasculum

language of flowers, talk about the history of botany and much more. The day will be filled with a variety of drop in sessions, to keep adults and children alike entertained throughout a Sunday afternoon – put Sunday 28 February in your diaries now.

Article and photographs are by Helga Krauss

Fungus Identification Workshops

Autumn 2015

On a scale from one to five, with one being dismal and five being exceptional, this year's fungal season has been about three and a half. The season got off to a flying start at the end of August with large numbers of macromycetes (larger fungi) in the woods with *Russula* and *Lactarius* showing particularly well. This lasted into the second week of September; at this point it looked like a really good season was underway. However the jet stream shifted and we had little rain for about 5 or 6 weeks. This drier period allowed logs and dead wood to dry out which had a deleterious effect on forest fungi such as brackets and crusts which shut down and never really got going again. This was strange as the end of autumn and early winter was both mild and wet. The grassland fungi such as waxcaps however responded very well to these conditions and there was still plenty to find till the end of November.

I am pleased to say that this year's drop in sessions of the Fungal Identification Workshop, started last year, was a continuing success. Sessions started on 6th October and continued every Tuesday until 31st November. After a slow beginning attendance picked up ranging from 1 to 15 participants with most evenings hosting ten or so budding mycologists. We were again fortunate to have Fabrice Boltho driving the event, assisted by Jo Dubiel with Mario Tortelli and on one occasion Geoffrey Kibby providing expert advice on fungal identification.

With this array of supervisory talent on hand it was possible to cater for all levels of ability; participants came from all backgrounds – gardeners, cooks, botanists and photographers. Some like myself struggle to prevent mycological knowledge going in one ear and escaping from the other during the 'off season'.

The most impressive aspect of these sessions is the comprehensive array of fungi often brought in from local sites which do not spring to mind as being

fungal hotspots. The assembled specimens graphically demonstrate the great diversity of form, reproductive and dispersal mechanisms, colour and aesthetic appeal that exists within the world of fungi. Some fungi are easily identified while some require microscopic examination of spores or even DNA analysis to achieve a finite identity. Constant revision of the taxonomy of certain groups contrive to confuse even the experts and make sure that text books are out of date soon after they are published.

Asked to proffer fungal highlights of the course the following were mentioned – *Calocybe ionedes* the violet domecap, a rare but colourful fungus associated with larch and chalky soil; *Cortinarius violaceus* the violet webcap, a stunning violet mushroom from Mereworth Woods, one of only four sites in Kent where this species is found; *Psathyrella pygmaea*, a small brittlestem found on decaying wood and a possible *Mycena rosella*, a small bonnet found in grassland.



Geoffrey Kibby helps with fungal identification, Photograph Bob Francis

The SLBI has been fortunate to inherit a complete set of *Field Mycologist* journals which, together with its impressive collection of mycological text books and stock of microscopes makes it an ideal venue to host mycological events - it is good to see all these facilities used to the full and the room was buzzing with activity - discussion, dissection and microscopic examination.

The course ended with a slide show of participants' photographs, a buffet and recollections of the highlights of the workshop sessions. Suggestions for next year's fungal workshops included more emphasis on recording, especially on local sites; looking for rare species on sites with ancient records but with no recent records and some field trips to augment the workshops.

Bob Francis



Cortinarius violaceus (Violet webcap) found in Mereworth Woods, Kent : Photograph Mario Tortelli

SLBI visits the Isle of Wight, October 2015

The residential field week in 2015 was to the Isle of Wight, off the Hampshire coast and for many of the group it was a first visit and, I suspect, will not be their last. We were based at the YMCA near Shanklin (thanks to John Hewitt for suggesting it) so the programme was concentrated in the south-east of the island where our accommodation was well-placed on the coast path and on bus routes to explore further afield.

The first day we descended the zigzag path down the cliff behind our hostel, botanising on the way, and followed the lower promenade to Sandown studying the plants colonising the Lake Cliffs. These were exposures of ferruginous (iron-rich) sands from the Lower Greensand series with areas of bare sand following erosion and damp seepage areas caused by iron minerals being deposited and impeding the downward drainage of water. This offered interesting habitats for plants and their adaptations to surviving the challenges and opportunities of eroding cliff face. Over 50 species of vascular plants were recorded here, together with many garden plants (herbaceous and shrubby) that had been delivered to the cliff base by landslips from gardens bordering the cliff (and steadily getting shorter with time and erosion!). The damp areas along the zigzag produced spectacular stands of the great horsetail (*Equisetum telmateia*) with its green brush-like shoots up to 4ft in height and conspicuous pale sections of stems contrasting with the narrow brown toothed sheath between the whorls. When I did a reconnaissance visit in April, the green shoots were only just emerging, but more conspicuous than were the shorter, pale cream shoots with a terminal cone that produces spores. The cones had withered away by autumn. Horsetails had been a feature of the SLBI field visit to Margam Park (see *SLBI Gazette* No 18 Aug 2013 p7) but we did not see the great horsetail there. The two horsetails that bear the cones on separate, non-green shoots in spring and the green “barren” shoots later, are the great horsetail and the all-too-familiar field horsetail (*E. arvense*). We did see the cones of the latter at



SLBI group photograph at YMCA, Shanklin, another former hospital.

Kenfig National Nature Reserve near Margam in the SLBI visit of May 2013. Horsetails are related to ferns and both have alternating generations of gametophyte (prothallus producing the gametes) and sporophyte (green fronds or cones producing spores) and there was interest in this (see *SLBI Gazette* No 18 Aug 2013 p7 for detail of horsetail life cycle). Wet seepages on the cliff face were indicated by other marsh plants such as common reed (*Phragmites australis*), hemp agrimony (*Eupatoria cannabinum*), smooth and toad rushes (*Juncus effusus* and *J. bufonius*).

The most notable plant on the Lake Cliffs was the royal fern (*Osmunda regalis*) and this too was associated with wet seepages. It is a rare native fern but being much favoured by gardeners for water gardens was decimated on the island by fern dealers long ago. Today it still occurs, mostly in the southern half of the Isle of Wight: *The Flora of the Isle of Wight* (*Pope et al. 2003) shows eight modern tetrad records (1987-2002) but also 16 old records (1800-1986) not confirmed since. Victorian botanists found it to be “not uncommon” on the island in marshes, carr woodlands and wet cliffs up to 1870, but by 1913 it was greatly in decline. The current stronghold is wet seepages on the inaccessible faces of the Lake Cliffs (SZ/5983) where I counted over 30 plants in several patches on the Sunday morning but they did not reach full potential size.

At Sandown we visited Dinosaur Isle, a dinosaur museum/attraction that opened in 2001 to replace the much

smaller museum above the Library in Sandown. Wealden Beds of the Lower Greensand (up to 140 million years ago) occur as red cliffs north of Sandown Bay and, more extensively, along the chine coast in the south-west of the island from Brook towards Blackgang. This is a very unstable stretch of coast with frequent landslips that uncover dinosaur and fossil plant remains including casts of footprints, and at low spring tides series of dinosaur footprints and trunks of a fossil pine forest at Atherfield Point. Pieces of fossil wood get washed up on the shore. The Wealden and Lower Greensand sedimentary rocks are all of Cretaceous age from 140 million years ago. Apart from the original designer displays at Dinosaur Isle there were many panels by the geologists of the University of Portsmouth reporting results of their recent research on the island. A former boating lake by Dinosaur Isle has been made into a wildlife lake giving further wetland habitat and also sea rocket (*Cakile maritima*) in flower growing on some beach sand blown in, a habitat to be explored on another occasion. Woodchip on shrub beds with sea buckthorn (*Hippophae rhamnoides*) yielded a number of fungi: the large mushroom *Agaricus macrospora*, wood blewit (*Lepista nuda*) violet in colour, a poisonous small parasol (*Lepiota* sp.) and the coral fungus (*Ramaria stricta*).

The second day was spent at Shanklin Chine, a deep ravine with waterfalls and much greenery that has been open to the public since 1817, and has always been a popular tourist attraction. “Chine” is a local word for a deep

ravine formed by water erosion through soft sandstone and Chines are distinctive features of the southern coast of the Isle of Wight. At Shanklin there is a 105 ft drop to the shore: it is damp, shaded and well wooded with sheets of thalloid liverworts growing on the wet rock. Closest to the stream, splash from waterfalls and seepages was our largest species, the great scented liverwort (*Conocephalum conicum*) with its leafless thallus marked into hexagons and a pimple or breathing pore in the centre of each, good to see under a x10 hand lens. Another feature is the pungent disinfectant-like smell from oil bodies when the liverwort is crushed. Also in great abundance on the wet sides of the chine and forming projecting tiers rather than flat plates is the endive liverwort (*Pellia endiviifolia*). As we were visiting in autumn it was showing the frilly and divided ends to thalli that are typical of its winter growth and separate it from the overleaf pellia (*P. epiphylla*) that is on more acid rock. Both these thalloid liverworts in Shanklin Chine indicate a somewhat base-enriched substratum. Other smaller bryophytes were also found. The guide book to the chine gives a total of 150 vascular plants and 50 bryophytes so far recorded.

Soft shield fern (*Polystichum setiferum*) was both abundant and large in this chine and also bore spores on the backs of its fronds. Great and field horsetails were also present. The wet habitat is suitable for the external fertilisation by a swimming male gamete and growth of a succulent



SLBI in Shanklin Chine, Photograph June Chatfield

prothallus, the next stage in the life cycle of pteridophytes. Also characteristic of damp, shaded, base-enriched seepages is the opposite-leaved golden saxifrage (*Chryso-splenium oppositifolium*) that has erect hairs on its leaves but is not spectacular in autumn. The best time to see it is in early spring when the petal-less flowers are bright yellow-green from the ripe anthers shedding yellow pollen and fresh surrounding bracts. Angelica (*Angelica sylvestris*) was found in this wet wooded habitat recognised by smooth leaves and stem and red stem and wide bases to the petiole (leaf stalk). In the Heritage Centre there was an added bonus of an art exhibition on the Isle of Wight with works by Turner and William Daniels.

Sunday afternoon was spent exploring Fattening Marsh, a field of the open access RSPB Brading Marsh between Sandown and Ryde, where we met stands of marsh horsetail in the wet meadows with cones at the tips of the green shoots in this species as well as other wetland plants at the sides of the water channels.

The final day was a visit to Ventnor and the Botanical Gardens. Some of us explored the cascade gardens for bryophytes and also the sunny wall below the Winter Garden where we had some good sightings of wall lizard: this has been known from walls in Ventnor since the late nineteenth century and the need for crevices left as retreats is respected. DNA analysis from a detached tail has shown the lizards to be introductions from Italy, long naturalised on the Island. As they are introductions they are not protected by wildlife law. Colourful red valerian (*Centranthus ruber*) utilised some of the crevices and also provided shelter for the lizards. The base of the wall at the Winter Garden was dry and inhospitable, but there established was a grass in flower. This turned out to be Water Bent (*Polypogon viridis*) a Mediterranean introduction that has been naturalised in the Channel Islands for a century. Later investigation found that this grass is expanding rapidly and is now a common street weed in Gosport, Hampshire (John Norton *pers. comm.*) and has also been found in London on an LNHS field meeting reported and illustrated in *London Natural History Society Newsletter*, August 2015. There

is a good description and illustration in *Cope and Gary 2009



Red cage (*Clathrus ruber*) on woodchip at Ventnor Botanical Gardens: Photograph June Chatfield

Colin Pope, senior author of *The Isle of Wight Flora* and IOW County Ecologist (now retired) took us around the Ventnor Botanical Garden showing us a wealth of plants with information on them that added greatly to our visit. The Botanical Gardens had their origin in the sheltered landscaped grounds of a former hospital that was demolished in the 1960s. The warm microclimate allows the outdoor cultivation of many tropical plants normally grown only in greenhouses. It does have a greenhouse where the giant water lily (*Victoria regia*) was growing and flowering. Themed geographical sections gave a grove of tree ferns and these were propagating from spores – we saw several sporelings emerging from prothalli. The finale was being shown a patch of red cage fungus (*Clathrus ruber*) growing from a bed of woodchip mulch. This is definitely a place to return to.

Websites of Shanklin Chine and Ventnor Botanical Garden give further information and also the leaflet on Shanklin Chine nature trail. Botany on the Isle of Wight will be the subject of an evening talk at SLBI on Friday *12th February 2016 and we will discuss the potential of another SLBI visit when different locations can be explored.

*In SLBI Library

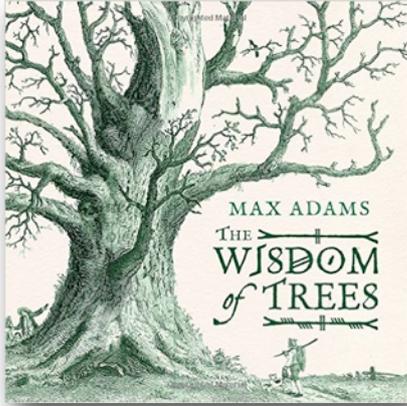
*Cope, T & Gray A, 2009. *Grasses of the British Isles*. BSBI, SLBI

*Pope, C, Snow, L and Allen, D, 2003. *The Isle of Wight Flora*, The Dovecote Press, Dorset.

June Chatfield

Book Reviews

Max Adams, *The Wisdom of Trees*. London: Head of Zeus, 2014. £14.99 (in the SLBI Library)



I was intrigued by the title of this book: can trees have wisdom? In his prologue Adams quickly tells us that they cannot; the book is given its title 'not because trees are wise, but because we would be wise to learn from them.' Then follow ten chapters, each somewhat discursive, on trees and woodlands and each featuring a different tree. This approach enables the author to digress into any area of arboriculture which interests him or on which he has opinions, and usually he succeeds in doing this in a way that interests the reader, though I personally found some of the passages concerning woodworkers' tools somewhat difficult to follow (probably because such things don't interest me, so I didn't make sufficient effort).

Thus we get a simple but memorable explanation of how trees help maintain the level of oxygen in the atmosphere essential for animal life, a rough method for estimating the age of trees, making charcoal, and the purchasing and management of woodland. And much more.

Finally there is a moving epilogue in which the author urges us to grow more trees and use them. He believes that the planting of trees in itself is not sufficient, we must also use them, and, when possible, live amongst them.

All this is enhanced by illustrations taken from the 1776 edition of John Evelyn's *Sylva*.

Although described by the publisher as a 'gift book' – presumably a book bought to be given away – many buyers will probably want to keep their copies rather than pass them on.
Roy Vickery

Sarah Lloyd, *Where The Slime Mould Creeps*. Tympanocryptis Press, 2014. £17.99

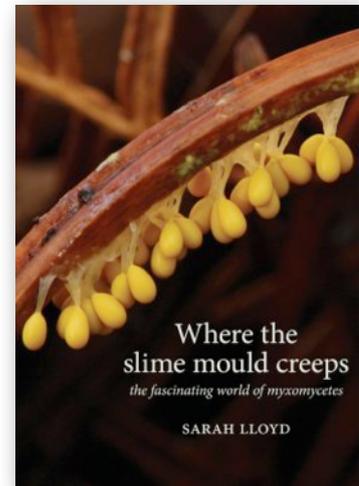
But for the inspirational talk given by Irene Palmer and the wonderful close-up pictures taken by her late husband John (*SLBI Gazette* No.17 Jan 2013), slime moulds would have been a bit of a closed book to me. Following the film *The Secret Garden* my interest was further stimulated however attempts to find these organisms for myself have always been met by dismal failure. Whether it was due to the mild damp autumn or the increased close scrutiny of dead wood looking for fungi, I have found a dozen or so species recently ranging from the downright revolting and aptly named 'Dogs vomit' slime mould (*Fuligo septica*) to the incredibly beautiful 'Coral slime' (*Ceratiomyxa fruticulosa*). I am now completely hooked.

Slime moulds have had a chequered past; their two stage life cycle with a free-living, motile, animal-like stage followed by an exquisitely beautiful, immotile, fungal-like, spore-bearing stage has confounded taxonomists. In fact they belong to neither the animal or plant kingdoms but are now in a separate kingdom the Protista, in the phylum Myxomycota and the class Myxomycetes. Their life cycle is complex where the animal-like motile phase, in which growth and feeding occurs is followed by the fungal-like, sessile reproductive phase.

They only become visible to the naked eye in the reproductive phase when careful examination of the underside, or in crevices in rotting wood - also in leaf litter might reveal the colourful sporangia or fruiting bodies which are no more than 1-2mms tall. Occasionally slime moulds are encountered at the plasmodial stage (the stage before spore formation) appearing as networks or patches of 'mucoïd' multinucleate strands capable of co-

ordinated movement and able to feed on bacteria and dead organic material. These plasmodial masses are sometimes found on grass in lawns and cause misplaced concern amongst gardeners.

As a novice in this field I searched for an affordable guide, say a laminated Field Study Guide or a simple book with identification features and coloured pictures before possibly progressing to more expensive tomes requiring the use of a microscope to view surface features or to measure spores. There isn't one. However my reason for me writing this article is to draw your attention to a recently published book called *Where the slime mould creeps* by Sarah Lloyd. Sarah is an Australian naturalist based in

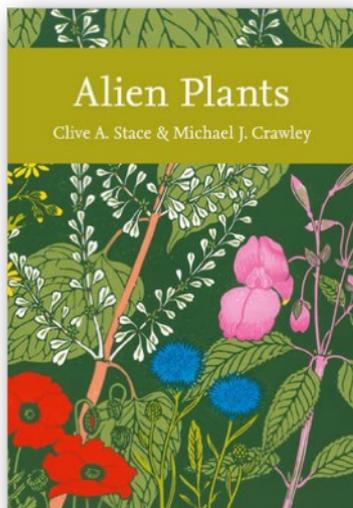


Northern Tasmania and at first I thought this would limit the book's appeal and usefulness to the UK scene. However looking through it, many of the species are found here and those that are not are closely related. It is not primarily a reference book or a field guide but is an invitation by the author to share her enthusiasm for myxomycetes; it is written in a very clear and readable way and its aim is to stimulate the reader to explore further. The strong point of this 100 paged book is the simplicity of its text and the magnificence of its pictures; the weak point is the poor quality of its binding as it has already started to shed pages after 4 weeks of gentle use. Over sixty species of slime mould are covered and illustrated by exquisite pictures.

The book is divided into 3 parts, the first a description of the general biology of slime moulds, the second part deals with habitats, substrates and associated invertebrate communities and finally a gallery of high quality photographs.

Inevitably in such a short volume there are omissions and for a detailed description of species and the microscopic ornamentation and dimensions of their spores and capillitia so essential for positive identification, the student must look elsewhere but the photographs capture the fascination of this ephemeral, miniature and incredibly decorative world and whet the appetite for further study.

Clive A. Stace & Michael J. Crawley, *Alien Plants*, London: William Collins, 2015; 626pp. £65. (in the SLBI Library)



This substantial book by two of Britain's most eminent botanists, the first a taxonomist and the second an ecologist, is volume 129 in Collins New Naturalist series. The introductory chapter explains what is meant by alien plants, and attempts to estimate how many there are in the British Isles. Apparently there are 38 marine algae (seaweeds), 23 bryophytes, 13 pteridophytes, 49 gymnosperms and 2006 flowering plants. Of these flowering plants 197 are classed as archaeophytes introduced before 1500 and the remainder neophytes introduced since that date. The archaeophytes include

most of our cornfield weeds, including poppy (*Papaver rhoeas*) and corn marigold (*Glebionis segetum*). Neophytes include not only such bogeys as Japanese knotweed (*Fallopia japonica*), butterfly bush (*Buddleja davidii*) and giant hogweed (*Heracleum mantegazzianum*) but also such cheery plants as red valerian (*Centranthus ruber*) and yellow corydalis (*Pseudofumaria lutea*).

Then follows an interesting chapter on 'the alien-hunters', most of whom were (and still are) amateur botanists. One marvels at the dogged determination of these people who in pre-internet days and without ready access to a worldwide herbarium or a major botanical library were able to identify the strange plants which they found. The banker J.E. (Ted) Lousley,

Bob Franco was the SLBI's President from 1968 until his death in 1976, is described as 'one of the most influential alien specialists of the twentieth century'. Another easy-to-read chapter deals with 'our top fifty-two neophytes, which covers those that are most widely recorded, starting with pineapple-weed (*Matricaria discoidea*), first recorded in 1869 and since 1986 recorded in 91.47% of hectads (the standard units used by botanical recorders) and finishing with Turkey oak (*Quercus cerris*), recorded since 1986 in 33.51% of hectads.

Less accessible chapters include those on 'the ecology of abundance' and 'alien genetics and breeding systems', but with some persistence these can prove to be fascinating and worthwhile. As with all New Naturalist volumes there is an abundance of photographs. In this volume some are good, but some are decidedly substandard. Many readers may be surprised to learn that red deadnettle (*Lamium purpureum*) is an archaeophyte, but one assumes that most buyers of the book will know what it looks like, so the poor photograph adds nothing of value. Possibly fewer photographs with less wordy captions, some of which repeat what's already in the text, would have allowed more space for the better reproduction.

Inevitably different readers will have different ideas about what should or should not be given prominence. I was surprised by the lack of interest

shown in the Isle of Man, where the visually dominant shrubs in many hedgerows are of Southern Hemisphere origin. I also thought more might have been said about Mexican fleabane (*Erigeron karvinskianus*) which is spreading so rapidly throughout southern England. Himalayan honeysuckle (*Leycesteria formosa*), a plant which I particularly dislike and which seems to be vigorously spreading along woodland paths, is only very briefly mentioned.

This is a book that provides stimulation and education, but is not a quick read. London, of course, is a hotspot for alien plants; it's a most welcome addition to Institute's Library.

Roy Vickery

Chinese visitors

On 23 November six staff of the Jiangxi Provincial Department of Forestry and their interpreter spent the morning at the Institute. Although we had made it clear that we have little relevant to forestry - we don't have room for many trees - they thought it important to visit us during



Photograph by Roy Vickery

their stay in the U.K. Roy Vickery talked about the Institute's history and its work, and showed them the library, herbarium and garden. The last two, and particularly the Irish yew (*Taxus baccata* 'Fastigiata') in the garden, proved to be of special interest. Fortunately Francoise Sergy's *The Fox got You* exhibition was on display in the Lecture Room, so they were able to examine the section relating to yew being used to produce a drug for the treatment of cancer. Thanks to Nell Gatehouse who dealt with the lengthy correspondence concerning the visit.

Roy Vickery

Aromatherapy – bringing summer scents and winter wellness to the SLBI

Photographs by Caroline Pankhurst

As part of our Heritage Lottery Fund project we've been broadening the range of our workshops at the institute, to entice new visitors through our doors and excite them about botany in new ways. One of our most popular subjects has been Aromatherapy, with two workshops run by Julie Bowles, Aromatherapist, in August and November 2015.

Each session began with an introduction to Aromatherapy – its fascinating history and some of its uses – before doing a smell assessment (a 'sniff test') of 6-7 essential oils. We were asked to think about how we perceived the essential oil aromatically, how it made us feel and if it produced any images or memories. Reactions varied dramatically, with looks of fond memories, fruity freshness or strong distaste appearing on people's faces!

In summer, we sniffed and learned about summer uses for lemongrass,



Participants all the way from Japan enjoy sniffing the oils

cypress, tea tree, lavender, bergamot, peppermint and Roman chamomile. You might know that lemongrass is useful as an insect repellent and that lavender is good for sunburn, but did you know that cypress is good for hot flushes, peppermint helps nausea and bergamot uplifts your mood?

Based on all of this, we decided what each of us needed in a rollerball remedy, applied to our pulse points to



Julie helps make the summer roller balls

help us through the hot summer days – and blended one to take home.

Then before we knew it, winter was here, and winter wellness was what we needed! This time we looked at black pepper to stimulate the immune system, cardamom for chesty coughs, ginger and eucalyptus lemon for muscle aches and pains, grapefruit as a decongestant and thyme linalol for throat infections – as just some of their uses! This time we made some lovely Epsom bath salts using the essential oils we felt we needed – and went home and got in the bath....

Our next Aromatherapy workshop will be on Sat 23 April, when we'll be looking at skincare and making a face balm – book soon! Details on the website or contact us.

Caroline Pankhurst

SLBI delighted to host London's first showing of 'The Fox Got You' in November 2015

The SLBI was delighted to host London's first showing of the photographic installation, 'The Fox Got You', produced by artist and SLBI member, Françoise Sergy.

The photographic installation, which was displayed at the SLBI from 9-28 November 2015, celebrates six common plants (including foxglove, goat's rue and yew – hence the name, 'The Fox Got You') at the origin of five major medicinal drugs. It brings together the plants, drugs, clinicians,

patients, the people making the drugs and the scientists researching how these diseases affect our body. By revealing the powers behind plants, the exhibition offers a unique insight into the way we are made and changed by the natural world.

The photographs are stunning and provide a huge amount of information about how the 6 plants are used - for example, foxgloves are used to treat the heart, goat's rue is used in diabetes, yew is used in the treatment of cancer.



Photographic greenhouse: Part of 'The Fox Got You' installation at the SLBI

The exhibition was very popular during its showing at the Oxford Botanic Garden, prior to coming to the SLBI, and is going on to be shown at other places around the country.

Many thanks to Françoise for showing her wonderful work here. If you know of other artists who might like to hold an exhibition in our newly decorated lecture room, do please let us know.

Caroline Pankhurst

Local names for Redshank (*Persicaria maculosa*)

Thirty-seven local names have been recorded for *Persicaria maculosa* in the British Isles.

Some of these names, like the standard English name refer to the plant's red stem: red joints in Dorset, red legs in Cheshire and Lancashire and red weed in Cheshire.

The *maculosa* in the Latin name refers means 'spotted' or 'mottled' and refers to the brownish spots which occur on the leaves, particularly when the plant grows in exposed, sunny places. Several names refer to this feature. These sometimes suggest that the markings were made when the leaf was pinched, such names include: Devil's pinches in Dorset, Pinchweed in Northumberland and Oxfordshire, Virgin Mary's pinch - 'from a tradition that the Blessed Virgin once pressed it with her thumb' - in Berkshire. and lady's thumb in North America.

An Oxfordshire legend, recorded in the 1880s, tells why the Virgin Mary pinched redshank leaves: she was searching for it to make an ointment, but could not find any. Later, when the need had passed, she found some, and in her annoyance pinched its leaves, giving it the rank of an 'ordinary weed', so redshank is now said to be 'the only weed that is not useful for something'. Presumably the name useless recorded in Scotland refers to a similar legend.

A Guernsey name, *herbe traitress*, explains how a woman who had committed a murder wiped her blood-stained fingers on the leaves of redshank, leading to the detection of her crime, and the leaves being stained ever since.

In East Anglia the name devil's arse-wipe suggests another origin of the leaf markings.

Two names recorded from Gaelic-speaking areas of Scotland can be translated as 'the blood-spot' and 'herb of the tree of crucifixion', it being said that redshank grew at the base of Christ's cross and was stained by his blood. This legend, without any associated names, has also been recorded from Cornwall and County Cork. Similar legends have been recorded to account for the spots on the leaves of lords-and-ladies (*Arum maculatum*) and early purple orchid (*Orchis mascula*).

However many of the local names given to redshank are difficult to explain, such names include: lavender in Somerset, lover's pride in Sussex, and saucy alicia in Norfolk.

Yellowin girse, recorded from Shetland, suggests that redshank was used to produce a yellow dye, but the name redshank was also given to alpine meadow-rue, which was also used as a dye-plant in Shetland, so perhaps there is some confusion.

Some of the local names given to redshank are shared with other plants. Pincushion, a name which is difficult to explain when given to redshank, is shared by 10 other species, including cornflower (*Centaurea cyanus*), teasel (*Dipsacus fullonum*), thrift (*Armeria maritima*) and yellow corydalis (*Pseudofumaria lutea*). Seven other plants share the name redshank, or redshanks, including broad-leaved dock (*Rumex obtusifolius*), herb robert (*Geranium robertianum*) purple loosestrife (*Lythrum salicaria*)

Roy Vickery



Persicaria maculosa
at Templecombe, Somerset, in August 2015
Photograph by Roy Vickery

A few local fungi to look out for in early spring and onwards

Ciboria amenacea, the Alder Goblet: a common, small, brown cap fungus (occasionally stalked) 4-10mm in diameter found on fallen male alder catkins.

Ciboria coryli: small brown cups or discs 3-11mm in diameter found on fallen, dead, male hazel catkins.

Encoelia furfuracea, the Spring Hazelcup: a sessile, brown, leathery,

irregularly star-shaped fungus with a scurfy exterior, initially cup-shaped 1-5cm diameter and clustered on the dead wood of standing or fallen hazel poles. It is usually found on old, large unmanaged hazels.

Sarcoscypha coccinea / austriaca (difficult to tell apart in field): Scarlet Elf Caps. Found on fallen moss-covered, very dead, broad-leaved branches in damp places. The scarlet (occasionally yellow) cups are occasionally stalked measuring up to 5cms diameter.

Mitrophora semilibera, the Semifree Morel: Found in calcareous woodland often in secondary hawthorn on chalk. The distinctive dark brown, grooved or ribbed cap with a shallow margin is free from stem for half its length. The stipe is creamy white and hollow.

Verpa conica, the Thimble Morel: the warm reddish brown, wrinkled or puckered cap is completely attached to the yellowish, hollow stem (Not free as *Mitrophora*). It frequents a similar habitat as the above species but is also found in more open areas.

Disciotis venosa, Black Cup: this distinctive morel is found in broadleaved woodland or scrub on calcareous soils. The large, flattened cup up to 18cm diameter is dark brownish black, very strongly veined and wrinkled. The under-surface is pale. The flesh smells strongly of chlorine, bleach or vinegar. It may be locally common.

Enteridium lycoperdon (Reticularia lycoperdon) A myxomycete (slime mould) found on tree trunks as large cushion shaped masses 2 - 10cms long with silvery shine - becoming brown later. It can be seen as early as February in some years.

Joyce Pitt (adapted by Bob Francis)

Gazette Items

Articles or enquires should be emailed to rbrtfranc@gmail.com or sent c/o The South London Botanical Institute. Copy for August should be with the editor by mid July.

Please help the SLBI continue its work, enabling people of all ages to enjoy the wonders of plants

The SLBI has provided a unique environment for learning about plants since 1910. We want to continue this work and offer exciting opportunities to a wide range of people but sadly our resources are very limited. Whilst our membership subscriptions provide a vital source of income, we would be very grateful for any additional donations you are able to make.

There are 3 easy ways for you to make a donation:

- Post a cheque, made payable to the SLBI, to 323 Norwood Road, London SE24 9AQ (please let us know if you're a UK taxpayer and would like us to send a Gift Aid form)
- Make a donation online via the 'Donate Now' button on our website: <http://www.slbi.org.uk/donate/>
- Leave some cash in the donation box by our door, next time you're visiting.

You might also like to consider giving a Gift Membership, so that a friend can also enjoy the benefits of the SLBI – please contact us or see our website for details: <http://www.slbi.org.uk/join/>

Thank you so much for your support.

Red Data Book Species and conservation.

Ecology and Conservation Studies Society, Birkbeck Free Lecture series.

Spring 2016: six Friday evenings, Feb 5th to 11th March, 18:30 to 20:00. Lecture Theatre B35, Birkbeck, University of London, Torrington Square.

Species conservation is embedded in national and international regulations, but does this achieve good representation of biodiversity? For example, invertebrates are not well catered for, let alone many fungi. Can we conserve the Great Crested Newt by translocation without providing for maintenance of both the ponds and terrestrial habitat that it needs? Or does the protection of species such as the Violet Click-beetle act as a flagship to conserve the whole suite of veteran tree biota? Are Red Data Book species the best indicators or flagships of biodiversity value, or should we rather examine concepts like "ecological engineers". What of widespread species that may be declining un-noticed? This series examines the questions around the protection of threatened species.

- Feb 5th **"To protect or not to protect? Extinction risk, Red Lists and the agony of choice"**. Monika Böhm, Indicators & Assessments Unit, Institute of Zoology.
- Feb 12th **"Stinking Hawk's-beard, species recovery – the inside story"**, Brian Ferry, Royal Holloway University of London.
- Feb 19th **"Red-listing the English flora - a better approach to conservation prioritisation?"** Fred Rumsey, Natural History Museum.
- Feb 26th **"Has being a European Protected Species helped the great crested newt?"**, Brian Banks, MIEEM, Director, Flag Ecology.
- March 4th **"The return of the native; the reintroduction of the short-haired bumblebee"** Nikki Gammans, Bumblebee Conservation Trust.
- March 11th **Action for Species – the RSPB's Species Recovery Programme"**, Hannah Ward, RSPB.
- A reading list will be available later. To receive this, please email ecssoc@gmail.com, consult the website <http://www.bbk.ac.uk/geds/our-research/ecss/free-public-lectures>, or pick up a copy at one of the lectures.