International Oak Society

Oak News & Notes

The Newsletter of the International Oak Society, Volume 19, No. 2, 2015

For nearly 400 years the McBaine Bur Oak, known simply to locals as "The Big Tree," stands stately in the middle of the floodplains of the Missouri River south of Columbia, MO. This image was taken at sunset in May of 2010 by Kyle Spradley. **See story on page 7**

8th Triennial Conference of the International Oak Society

Program update:

The program has been finalized and the PDF is viewable at http://www.mortonarb.org/ios2015. There is still time to register, but hurry because time is running out fast. There are a few spots left for the Post-Tour, but those are going fast as well.

Don't forget this Conference will feature the first silent auction, with proceeds going to fund student scholarships to the 2018 IOS Conference. If you have items you would like to donate, please contact Ryan Russell at russellry76@yahoo.com.

Murphy Westwood of The Morton Arboretum and Sara Oldfield of the IUCN Global Tree Specialist Group are organizing an oak Red Listing workshop for IOS folks on Sunday the 18th from 10:00am–3:00pm, including a free lunch. The workshop will provide basic training in how to compile an IUCN Red List threat assessment and review assessments so far completed by the Morton for oaks of the Americas. Please RSVP to Murphy at mwestwood@mortonarb.org if you would like to attend or want more information.

There are other breakout meetings happening that day as well, like an NAPCC Oak Curatorial Group meeting from 3:00-4:00pm (contact Greg Paige: gpaige@bartlett.com) and an IUFRO meeting from 4:00-5:00pm (contact Chuck Cannon at: ccannon@mortonarb.org). If you would like to attend any of these meetings, please plan your travel accordingly so you can join.

Acorn swap information can be found at http://systematics.mortonarb.org/IOS2015/ Be sure to make plans to collect from your favorite trees and share with your IOS friends at the most popular Conference event.

Conference Committee

Project Acorn

Damaged scrub oak habitat in central Florida is being restored—one acorn at a time. Project Acorn, a multiyear effort that combines the initiative of the Florida Fish and Wildlife Conservation Commission (FWC), financial backing from the Disney Worldwide Conservation Fund, and the work of local volunteers, aims at healing impaired environment on the Lake Wales Ridge Wildlife and Environment Area in Florida by planting the native oaks that have gone missing from the scrub oak habitat.

Scrub oak seedlings in the nursery waiting to be planted out. Photo: Bill Parken

Some acorns were directly planted in the restoration area (December 2013). Photo: Bill Parken

Under the leadership of Bill Parken and Nicole Ranalli of FWC, volunteers are involved in the three tasks required for the project: collecting acorns in fall, potting them, and then planting them out in summer. Work began in 2013, when 800 scrub oak sprouts were planted, then in the summer of 2014 volunteers planted 2,400 sprouts, and this year the project has 2,500 sprouts ready for planting. An estimated 700 to 800 people have contributed to the project: collecting, storing and potting acorns, then maintaining the germinated seedlings, and finally planting the sprouts and watering them. Most of the work is being done by the volunteer group Ridge Rangers, an organization of volunteers helping to restore wildlife habitat on the Lake Wales Ridge and nearby areas in central Florida.

The scrub oak species involved include sand live oak (*Q. geminata*), Chapman oak (*Q. chapmanii*) and myrtle oak (*Q. myrtifolia*). The oak trees will benefit the gopher tortoise (*Gopherus polyphemus*) and the Florida scrub jay (*Aphelocoma coerulescens*). It is also hoped that the fire-resistant oaks will crowd out the cat briar vine (*Smilax* sp.) and the Natal grass (*Melinis repens*), which are not native to the habitat and compete with the oaks for moisture and soil nutrients. In order to help the seedlings become established, project leaders have been mixing potting soil with mycorrhizal material gathered from under the leaf litter below mature scrub oaks.

Volunteers show acorns gathered at Carter Creek, FL, in September 2013, the project's first year. Photo: Bill Parken

Oaks have already been planted over 12 acres of damaged scrub habitat, and the goal is complete restoration over a total of 20 acres. The 2015 planting campaign took place in July and August, and volunteers will be gathering acorns during October 2015, in preparation for next year's campaign. More information about the Project, can be found on the IOS website, in the Articles section.

Roderick Cameron

Oaks in Australia

My arboretum is in the Western District of Victoria, Australia, at Dunkeld, which is situated about 250 km west of the capital city, Melbourne. Ours is a Mediterranean climate, with hot dry summers and cold wet winters. Rainfall is around 650 mm per annum, mostly in the winter, but if we get a good summer, we may receive up to 25 mm per month. Temperatures range from several days over 40 °C in the summer down to -1 or -2 °C morning frosts in the winter. Our soil is of volcanic origin, classified as a sandy loam over clay. It is not rich and requires superphosphate applications for agricultural production. The top soil is only about 45 cm deep. Our mild climate and mostly reliable rainfall allows us to grow trees, but we do not by any means have ideal growing conditions.

Quercus alnifolia

Quercus grisea

Our arboretum extends over some 75 hectares with as many species of temperate trees as I have been able to collect and successfully establish. We have in cultivation 200 species of oak and approximately another 70 hybrids and cultivars. Of these, 12 are in subgenus *Cyclobalanus* and 12 are species of *Lithocarpus*. We have planted 2 or 3 trees of each species for future pollination and different accessions of the same species have been planted for the morphological variation shown.

Most of my collecting has been through the mail, but I did travel to the Yunnan province of China in 1989, and spent six weeks collecting with five other people, as guests of the Kunming Botanical Institute. We visited areas closed to foreigners at that time. *Quercus pannosa* with its golden tomentum backed leaves was a very beautiful tree and common enough in northern Yunnan. But north of Lijiang, we walked 12 km into a magnificent river canyon called Gan-He-Ba, with towering mountains each side, while it rained solid all day. There we found many *Q. pannosa* with tan/brown backed leaves, a different color to the commonly-seen gold ones. Does anyone know of this difference? The acorns of this species were germinating while still on the tree, making it a real challenge for the collector, but I did manage to successfully cultivate one tree of each type. Other nice specimens from that trip are *Q. franchetii* and *Q. griffithii*. Also *Castanopsis delavayi* and *Q. delavayi*, planted nearby. It was interesting to note how trees of the same species, but from warmer locations, varied relative to those of cooler origin. We collected *Q. variabilis* in southern Yunnan, at Simao, and it is inclined to be semi-evergreen. Other specimens here in Australia are fully deciduous with spectacular autumn foliage, obviously sourced from much further north. Similar characteristics are seen with *Pyrus pashia,* which we collected from the same location, and which is evergreen in cultivation. As well as oaks and pears, we have evergreen species of *Alnus*, *Fraxinus* (several species) and *Ulmus*.

In 2009, I attended the IOS Oak Conference at Puebla, Mexico and enjoyed it very much, meeting many very interesting members of the oak fraternity.

***Quercus delavayi*, grown from acorns collected in Yunan, China, in 1989.**

On the Pre- and Post-Conference Tours, looking at the oaks in their natural environment, at Taxco, in the state of Guerrero, it was common to see *Q. urbanii* with its rich red velvety new leaves, but on some of the trees the velvet was golden. Between Zacapoaxtla and Cuetzalan we saw the dwarf species, *Q. repanda*. Much to everyone's dismay, not one acorn was to be found. But looking intently I spotted a cupule on one bush: "Where there is a cupule, there must be an acorn!" So searching the ground underneath I was lucky enough to find an old acorn, the

Quercus coccifera.

shell was starting to deteriorate, but it appeared to be viable. While talking to IOS member Kunso Kim, the subject of acorns rotting when sown came up. From my observations, it is mainly section *Lobatae* species that absorb water, and the embryo becomes waterlogged and rots before it starts to germinate. My solution is to remove the pericarp or shell and the acorn will germinate without any problems. If you carefully prize the two cotyledons apart, it starts growing immediately. It can be a big job with any quantity to do. I find it is easier to start at the hilum scar as the pericarp is weakest there. It may seem a lot of bother, but in my opinion it is well worth the effort for rare species.

Mexican oaks grow very well for us and we have around 40 true Mexican species in cultivation, (about 60 counting those that cross the border into the United States). *Q. candicans, Q. conspersa, Q. crassifolia, Q. liebmannii, Q. obtusata, Q. oleoides,* and *Q. rysophylla* are all outstanding trees. The endangered *Q. hintonii* is represented by three trees doing quite well. When raising seedlings it is always interesting to see the variation that often occurs. Several species with very deeply-cut leaf variations we grow are *Q. alba, Q. cerris, Q. petraea* subsp. *pinnatiloba, Q. pyrenaica* (collected from the most southerly location for that species) and *Q. vulcanica*.

Up until 2000, my collection was keeping up with the rest of the world, but about that time the Australian Quarantine and Inspection Service brought in harsh regulations on the importation of seeds. Nowadays my collecting has largely ceased, but on the positive side, I am lucky to have the collection growing, and that I can enjoy. You have the editors of *ON&N* to thank for this article as I am more comfortable down the paddock, planting trees. Any members are cordially invited to visit, if in Australia. We have accommodation available on www.mereweatherestate.com.au

Bill Funk

Converted units:
250 km = 155 mi
650 mm = 26 in
25 mm = 1 in
40 °C = 104 °F
-1 or -2 °C = 30 or 28 °F
45 cm = 18 in
700 hectares = 1,729 acres

All photos by author. A longer version of this article, with additional illustrations, can be viewed on the IOS website in the Articles section.

Did you know?

Oaks are well known in many cultures throughout the world. Many languages and dialects have a unique word for oak. Here are a few of them: Albanian = lisi, Bosnian = hrast, Czech = dub, Dutch = eik, Finnish = tammi, French = chêne, German = Eiche, Greek = δρυς, Japanese = オーク, Korean = 오크 나무, Portuguese = carvalho, Romanian = stejar, Spanish (Spain and South America) = roble (Mexico and Central America) = encino, Swahili = mwaloni, and Vietnamese = cây sồi.

Truffle-oaks in Argentina

Where were most oaks planted in Argentina during the last three years? One might guess that it would be in one of the collections of the few quixotic quercophiles in that country, or perhaps a landscape designer with a preference for *Quercus,* or a particularly zealous specialist nursery were responsible. But the answer lies in the activities of Trufas del Nuevo Mundo (Truffles of the New World), a new truffle-oak cultivation that recently completed planting a sizeable 50 ha/125 ac *trufera* (truffle orchard) with Holm oak (*Quercus ilex*) and English oak (*Q. robur*), for a total of 20,249 trees.

***Quercus ilex* in a row. Prism-shaped tree tubes bear the Trufas del Nuevo Mundo logo, and a sprinkler stands next to each tree.**

Members who attended the 7th IOS Conference in Bordeaux may recall Pierre Sourzat's presentation on "Black Truffles and Oak Trees in France and in Europe," where he explained the important role played by oaks in the production of Périgord black truffle (*Tuber melanosporum*). Truffles, a highly-prized culinary delicacy, are the fruiting bodies of a fun-

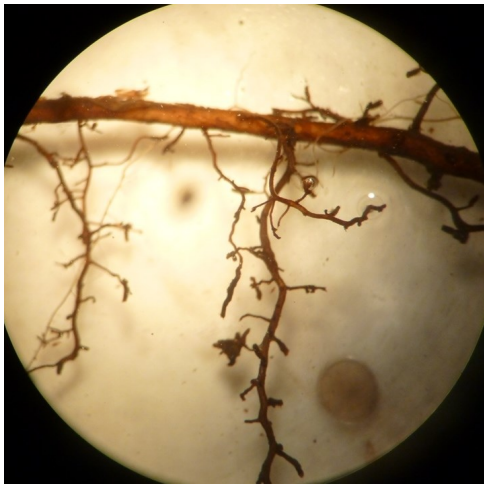
gus that flourishes as a mycorrhizal association with the roots of trees, especially oaks. The fungus is better than root hairs at absorbing minerals and water from the soil and provides these nutrients to the roots of the tree in exchange for carbohydrates. The mycelium of the fungus in effect extends the trees' roots and makes them more efficient. The fungus that develops as mycorrhizae then produces underground fruit, which contain spores and pheromones that match the sex pheromone found in boar's saliva. Pigs will sniff the truffle, dig it up and eat it, in the process spreading the spores. The scent that makes truffles irresistible to pigs has a similar effect on some humans, and makes them highly sought-after by discerning palates, and therefore highly valued too, fetching around USD 1,000 for 1 kg/2 lb. Truffles were first harvested in European forests using domesticated pigs (you had to be quick to make sure you got the truffle before the pig gobbled it, and that you did not lose a finger in the process), and about 200 years ago it was accidentally discovered that you could plant trees in fields in truffle country and later harvest truffles in these "artificial" truffle orchards. Coppicing or pruning the trees was later found to increase production. In the 1970s, seedlings were deliberately inoculated with truffle fungi and cultivation began in earnest. Dogs are now used to harvest truffles: they are just as efficient at smelling the underground treasure (once they have been trained) and have the advantage that they do not feel inclined to wolf them down!

Truffle-oaks at the plantation in Espartillar, Argentina, planted at a density of 416 per hectare (169 per acre).

Viewing root sections to check for the presence of mycorrizhae.

The principal truffle-producing countries are France, Italy, and Spain, but cultivation has taken off in the Southern Hemisphere in areas with appropriate climactic conditions. Truffles require calcareous soils and a Mediterranean climate, without summer droughts or excessive winter cold that can freeze the truffle in the soil. Propitious conditions can be found in Australia and New Zealand, currently the largest producers in the Southern Hemisphere (in fact, Australia aims to overtake its European competitors and become the largest producer of black truffles within the next decade), and also in South Africa and South America. Cultivation began in South Africa and Chile about ten years ago and in Argentina in 2010. Southern Hemisphere producers enjoy a specific advantage: truffles are best fresh and are harvested only in winter months, so producers below the Equator can offer their wares to Northern Hemisphere consumers when they are out of season.

The people behind Trufas del Nuevo Mundo first researched the project and joined forces with experts from Spain and Chile to obtain the necessary know-how. They next examined the soil and climate conditions of several areas in Argentina before deciding where to buy land to set up their *trufera.* The site chosen lies about 500 km/300 mi south-west of Buenos Aires and has ideal climate. The soil is not calcareous, but that can be corrected: the first step was to add lime to the land in order to bring the pH close to 8. Inoculated seedlings were produced in their own specialized nursery nearby, and in 2012 the first plantations began. The species chosen were *Quercus ilex* and *Q. robur*, as seed is easily obtained in Argentina from mature trees. In Europe, *Q. pubescens* and *Q. cerris* are also used extensively.



Mycorrizhae of *Tuber melanosporum* appear as small nodules on the roots of oak seedlings.

Another preliminary step involved scarification of the soil, which at this

Don Cecilio Segovia, caretaker of a truffle orchard in Lobería, Argentina, is more accustomed to rounding up herds of cattle on horseback. Now he hunts for truffles with the dog he has been training for the last two years.

site is shallow and rests on a layer of calcrete, a calcareous sedimentary rock. As the rock is impervious to water, it creates poor drainage conditions inimical to truffles and would also mean trees would grow with a shallow root system and be vulnerable to strong winds. A massive mechanical hoe was used to dig furrows that broke through the underlying rock. Trees were then planted in a pattern that favors efficiency but is far from picturesque: straight rows 8 m/26 ft apart, with trees planted every 3 m/10 ft. The rows run north-south, in order to maximize the amount of sunlight reaching the soil, a necessary condition for truffle fruiting.

Pedro Bercetche, owner of the turffle-orchard where Argentina's first truffle was found in 2014.

With 12.5 rows every 100 meters, and 33.3 trees in a 100 meters of row, they pack in over 400 trees per hectare (about 165 per acre), thus obtaining a total in excess of 20,000 trees in the 50 ha/125 ac plantation.

Young trees need protection against rodents (hares particularly can wreak havoc), so plastic tree tubes were installed. The strong winds meant a solution had to be found to provide support, as the stake holding up the tree shelter was not enough. It was decided to use an adapted espalier system, similar to what is used a vineyards: a wire is stretched along the row, at a height of about 50 cm/19 in, and the tree tubes are fastened to it, thus providing the necessary support.

Irrigation is required to help the trees become established and subsequently to provide the humidity necessary for truffles during summer. A sprinkler is placed at each tree, making sure water is spread around the tree, thus encouraging root growth and extending the area where truffles might grow.

The project has been financed by means of an investment trust, with shares available to outside investors, a structure that has been used for similar enterprises in other countries. It is a long term investment, as the first truffles are not expected to be harvested until the fifth season at the earliest and peak production is only reached after 10 years. However, if current prices are maintained— the combination of limited production and increasing demand suggest that might be the case— the potential returns are attractive. The first black truffles have already been harvested in Argentina. In 2014, a truffle was found in a private small scale truffle orchard planted in 2010 in the district of Lobería, closer to the Atlantic coast. This year (2015) truffles weighing over 270 g/10 oz were found in another private orchard, close to Trufas del Nuevo Mundos's plantation. In the large plantation, there is evidence of truffle potential: "scorched zones" around the trees, known as *brûlé*, marked by an absence of grass due to competition from the fungus, and mycorrhiza on the roots which can be observed in samples under a microscope. With these encouraging results, it looks like many more oaks will be planted in Argentina in coming years.

Roderick Cameron

All photos by author.

Species Spotlight: *Quercus nigra* L.

Quercus nigra, better known as water oak, is native to the southeastern United States; from the boot heel of Missouri, south to Florida; from Texas to New Jersey. Water oak can also be successfully grown far outside of its native range. Many consider *Q. nigra* to be a weedy, nuisance tree as it can be quite precocious, is very fast grow-

Deeply fluted basal flare of a mature water oak. Photo: Ryan Russell

Water oak acorns. Photo: Ryan Russell

ing (up to 5 ft/1.5 m annually) and can be prone to weak branching structure anstorm damage. However, water oak has many redeeming qualities as well. Its small ½ in/1.3 cm rounded acorns are a wildlife favorite, and many trees are sub-evergreen to nearly evergreen throughout most of the winter – through the native range. Water oak seedlings can be very difficult to identify. This species is very polymorphic, leading many to assume hybrid parentage in immature trees. Young trees can have long, skinny, near lobeless leaves, trident leaves, or spatulate leaves seen in most mature trees. A block of water oak seedlings can be a very interesting sight. Many have overlooked water oak as the "black sheep" of the family, with almost any other species preferred. However, a few selections have been made in the effort to correct some of the issues found in many individuals among the species. Selections for better branching habit, evergreen to sub-evergreen foliage, and strong central leaders are being evaluated for future release. Despite perceived longevity issues, water oak can live well over 200 years and often develop very interesting fluted trunks and large sprawling canopies.

Ryan Russell

Did You Know?

Many cities in the United States have been named after oaks (Oakland, CA, Oak Ridge, TN, Thousand Oaks, CA, etc.). Others are not so obvious (Encino, CA, Roble, CA—both Spanish words for oak tree), but one that may surprise readers is the city of Albuquerque in New Mexico. Founded in 1706, it was named for Spanish administrator and viceroy of Mexico Francisco Fernández de la Cueva, Duque de Alburquerque (hence the city's nickname: The Duke City). The viceroy's title referred to Alburquerque (note the additional "r", subsequently dropped from the US city's name), a town in Spain close to the border with Portugal. The origin of the name is uncertain but the two most likely theories connect it to our favorite genus: it is believed to stem either from the Latin words *alba quercus* ("white oak") or from the Arabic *Abu al-Qurq*, meaning "country of the cork oaks". Alburquerque is still a center of the Spanish cork industry, and the town's coat of arms features a silver oak bearing golden acorns.

Coat of arms of Alburquerque, Spain, featuring a silver oak and golden acorns.

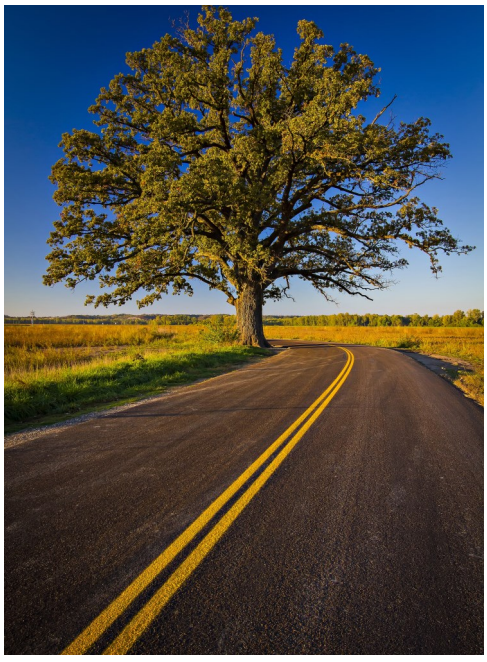
Oak Artist Spotlight

Columbia, MO is your quintessential college town in the Midwest. Just outside the campus of the University of Missouri you will find eclectic shops, superb dining, art galleries, and outdoor recreation areas that each year a new crop of students call home for a few semesters.

Just down the hill, near the illustrious Missouri River, is one attraction that stands stately in the floodplains and has been attracting visitors for generations. It began growing long before this country was founded. Lewis and Clark likely paddled past it. But it still remains a popular hangout spot and destination for students, bikers, and others to just gaze upon the sheer beauty of this giant.

Meet the McBaine Bur Oak, or as locals call it, "The Big Tree." The tree is estimated at 300 to 400-years-old and stands only 74 ft/23 m tall, but the champion oak's prowess comes from its base. With a 294 in/7.5 m trunk circumference and lower branches that are the size of other mature trees in the forest, the oak is a marvel specimen.

The canopy spreads to almost 130 ft/40 m and provides an oasis of shade in the middle of flat cropland. On almost any day, you'll find people hanging out under the tree and taking photos. The grandeur and beauty of the tree is what first beckoned photographer Kyle Spradley to the tree.



The McBaine Oak in October 2012.

During a summer thunderstorm in June of 2008, lightning illuminates the sky.

"I first came across the tree during my freshman year at Mizzou one afternoon on a bike ride along the nearby Katy Trail," Kyle says. "I saw the tree in the distance and road up to it and was immediately amazed by its size. After returning home I came to find out it's quite popular. The trail crosses the whole state of Missouri, but this tree is far and away the most photographed spot. I had to go back and make some more photos of my own."

A fall evening in October of 2010.

While at Mizzou, Kyle studied photojournalism and forestry, all the while taking photos of the tree. "I just kept coming back," Kyle says, whose love affair with trees is in part thanks to his father, William, who founded and owns Trees, Forests and Landscapes, Inc. in St. Louis and where Kyle spent his summers working as an arborist and plant health care technician. "I've always loved trees, but something about this one was special. It provides a great subject for photos."

Over the course of almost a decade Kyle photographed the tree, in every season and weather condition. His collection of photographs includes images of spring flowers, summer lightning storms, autumn colors, and freshly fallen winter snow. "Every time I would visit it was a different shooting situation and I would almost always meet a different group of people," Kyle adds. "It was great to hear the stories of why people drove or road their bike to the tree. Even people who are not arboreal admirers were amazed by it."

Today, Kyle lives nearly a thousand miles from the oak, but still treasures the images he created of the tree.

"Some of my favorite images came from my time with the McBaine Oak," he adds. "Even though mountains and alpine lakes are my photo subjects now, the beauty of that tree still is awe-inspiring. I love seeing the prints I have made hanging in my home everyday."

Kyle's work not only includes the tree, but other outdoor photography from his home state of Missouri and scenics from across the country. He currently resides in Laramie, WY. and spends his time photographing the rugged landscape of Wyoming and Colorado. Visit his website at www.kspradleyphoto.com for more images and to order prints of the McBaine Bur Oak and other images. Follow him on Facebook at www.facebook.com/kylespradleyphoto for his latest updates.

Ryan Russell

All photos in this article by Kyle Spradley.

UK Oak Open Days 2015

On July 11 a small but perfectly-formed group of IOS members from France, the Netherlands, Belgium, and the UK met at Lloyd and Sally Kenyon's estate at Gredington in northeast Wales for the commencement of the two-day 2015 UK Oak Open Days. The scene is set the moment one arrives at Gredington, as the gateway lies between two magnificent *Quercus robur* dating from the mid-18th century, and leads to a long entrance drive between gently rolling sheep-grazed parkland, the house as yet hidden in the distance: one is immediately aware that this is one of the most beautiful arboreta in the entire United Kingdom.

Gredington Hall. Photo: Charles Snyers

***Quercus pyrenaica* 'Pendula' at Gredington. Photo: Wiecher Huisman**

Lloyd and Sally's hospitality was similarly exceptional, not only did they provide morning coffee, a delicious lunch, and afternoon tea, but, well above and beyond the call of duty, they gave overnight accommodation to several of the group.

The Kenyon's arboretum extends over 80 acres/32 hectares on a neutral clay soil; rainfall averages 30 in/76 cm per annum. We were provided with excellent species lists, both alphabetical and in the order they would be seen on the tour; in addition there were separate lists of the hybrids and of oaks in the nursery awaiting planting (the latter a temptation to larceny). The parkland is dotted with native *Q. robur*, but there are also established *Q. rubra* and *Q. ilex* on the property. However, the collection really got under way with plants raised from the 2003 Winchester Conference seed exchange. Oaks from the *Cerris* section are generally good "do-ers" and are notably happy here, with, to name but a few, a *Q. trojana* of 6 m/20 ft, a beautiful *Q. castaneifolia*, and also at 6 m the hybrid *Q.* ×*libanerris* (first described from a tree raised by Dick van Hoey Smith at Trompenburg Arboretum). Mexican oaks are also adapting happily to the Welsh climate, including a *Q. greggii* at 3.5 m/10 ft. Within an old walled garden, Lloyd holds a UK National Collection of Viburnums of around 230 taxa. In an IOS publication, with difficulty I limit myself to mention only two: *V. sargentii* f. *flavum*, from my notes "like *V. opulus* on steroids,"

***Betula pendula* × *papyrifera* at Ness Botanic Gardens. Photo: Wiecher Huisman**

a most attractive plant; also *V. harryanum*, "most un-Viburnum-like."

After a convivial evening for those of us who stayed at Gredington (note: a couple of Lloyd's gin and tonics would suffice to sedate a horse), the majority of the group re-convened for the second day's visit to Ness, since 1948 the botanic garden of the University of Liverpool. Ness botanist Timothy Baxter very generously gave up his Sunday morning to guide us. The 64 ac/26 ha garden was originally created in 1898 by cotton merchant and proprietor of Bees Seeds, A. K. Bulley. Bulley's interest was mainly in herbaceous plants (the garden still includes beautiful herbaceous plantings), and the story goes that his head gardener thus had to secrete woody plants in the nursery, and he subsequently slipped them into the plantings as windbreaks. Several enormous *Q. rubra* must date from this period. In 1970 Hugh McAllister commenced an expansion of the collection, which by 1990 contained an astonishing 14,000 wild-origin acquisitions. In

OOD participants admire an oak at Gredington. Photo: Wiecher Huisman

particular the genera of *Alnus, Betula, Cotoneaster* and *Sorbus* were collected, but also included were some *Quercus* from the USA and the Far East – of the latter, a row of *Q. variabilis* lent credence to the specific epithet by displaying considerable variation in leaf width between different individuals. But with such a richness of genera, and Tim to give us the inside story, I confess that my notes were largely "non-oaky" – for example, a group of *Betula bomiensis* with fine pleated leaves, collected by Keith Rushforth (KR 6371), is probably the only source of seed of this species outside Tibet. The garden also has a notable collection of the various apomictic species of *Sorbus*, with which botanists continue to wrestle.

The next IOS Journal will be devoted to the proceedings of the October 2015 Conference, but a fuller report on these Oak Open Days by Chris Carnaghan will appear in the subsequent issue. In the meanwhile the warmest thanks are due to our hosts, Lloyd and Sally Kenyon (Lloyd also set up our day at Ness), and to Tim Baxter.

Shaun Haddock

Historic Oak Spotlight - A Witness to a Bloody Scene

Gettysburg, Pennsylvania, USA, July 1st, 1863. Union and Confederate forces engaged in the bloodiest battle ever fought on American soil. By the time the battle was over on July 3rd, the dead, wounded, and missing soldiers totaled over 50,000. There was one witness to this bloody scene that at the time was no older than the young men fighting next to it. On the second day of intense fighting, on a ridge known as Devil's Den, Confederate General Robert E. Lee's flank, under the command of Lieutenant General James Longstreet, attacked the Union-held high ground. The Union troops, under the command of Major General Daniel Sickles' III Corps of the Army of the Potomac, eventually gave way to the Confederate onslaught – the lone victory for the Confederates during the Battle of Gettysburg. Atop the ridge of Devil's Den that Wednesday, Thursday, and Friday was a young *Quercus alba*. For the last 152 years this tree has stood as a quiet reminder of the past; a link to a time when brother fought brother; and a warning for our future.

Devil's Den witness tree (*Quercus alba*). Photo: Randy Drais

Ryan Russell

From The Board

As you read these lines, we are less than a month away from the major IOS event, the triennial International Oak Society Conference. While registration for the tours closed September 22, it is still possible to register for the Conference itself. The Conference Schedule, available on the website of The Morton Arboretum, lists a roster of great presentations and workshops. The Conference will end with the triennial meeting of members and the famed seed exchange. The meeting of members will be held at the Thornhill Education Center of The Morton Arboretum on Wednesday, October 21 at 2:30 pm. If you are not planning to attend in person, there is still time, if you have not done so, to send in the proxy form that was sent to you by Diana Gardener with the Board election form in July.

The election to the Board for the 2015-2018 term is now closed. However, the IOS has no paid staff and relies on volunteers for managing its activities. During and after the 2015 Conference, we will recruit the members of the different committees. The IOS has currently 5 committees: Finance Committee, Editorial Committee, Taxonomy and Oak Cultivars Committee, Tour Committee, and Website Committee.

The Website Committee that I am currently chairing needs additional members with a good grasp of web design and development (even though we do not expect committee members to be able to code). We have indeed two projects that I mentioned in *Oak News & Notes* last year that are moving slowly due to lack of time and resources. The first one is a redesign of our main website www.internationaloaksociety.org so that it can be viewed on smartphones and on tablets.

The second project is a complete overhaul of our website www.oaknames.org.

Any IOS member who wishes to volunteer for any of our committees can contact any member of the Board or send an e-mail to our main email address: postmaster@internationaloaksociety.org.

Other news? During the spring, the Editorial Committee and the Board voted an important change in the use of author citation in scientific names. Since 2012, we have been using author citations in all our publications. We have changed that rule during our spring meetings.

Basically, in *Oak News & Notes*, in *The Cupule,* and on the website, the general rule is that author citations are not included in plant names. In *International Oaks*, our main publication, for all papers on Open Oak Days, tours, other society events, other trip reports, or garden visits, the author citation will not be included in scientific names either. For all other papers, author citation on first mention is still the general rule. Of course, there will be exceptions when helpful for historical or taxonomic reasons and we leave it to the authors and the editors to sort those out. We believe that these changes will make our publications more agreeable and easier to read.

Finally, the Board has chosen the location of the 2018 International Oak Conference, but this will be announced at the triennial meeting of members at the Morton on October 21. See you then.

Charles Snyers

Garry Oak Project

Quercus garryana (Garry oak) is an oak of distinctive merit. The newly founded Oak Harbor Garry Oak Society in Oak Harbor, Washington is committed to the stewardship of Garry oak trees through outreach, education and preservation. The existence of Garry oaks in our town is one of the things that make Oak Harbor special and unique amongst the other Whidbey Island communities.

Garry oak along the waterfront of Oak Harbor. Photo: Laura Renninger

Garry oaks are historically important because they likely represent village locations for Native People and encampments of northern raiding parties. It is believed acorns were brought from the abundant supply of Garry oaks on Vancouver Island, British Columbia, effectively reseeding the oaks on Whidbey for hundreds of years. Garry oaks became the natural symbol of our Community in 1851, when Dr. Richard Lansdale named the small bay bordered by oak trees *Oak Harbor*. Unique conditions required for its existence make this tree significant. The oak is drought tolerant, which means the semi-arid conditions that exist in the rain shadow of the Olympic Peninsula are favorable for its survival as a deciduous in a region known for conifers. Additionally, the Garry oak is the only native oak species in British Columbia, and Washington State.

According to a 2008 publication by the USDA entitled *Pacific Northwest Oak Communities*, as much as 99 percent of the oak communities in some areas have already been lost. Over the last 150 years man has felled the Garry oak in Oak Harbor in great numbers. However, since 1990 there has been a City ordinance that offers a measure of protection for the Garry oak. Invasive plants are also a problem for our oaks. Many private homeowners and several churches have beautiful, mature Garry oak trees. In general, the trees are well cared for, but there are places where persistent English Ivy has crept up clear to the canopy of some trees, which has proven to be fatal. The Oak Harbor Garry Oak Society focused preservation work last summer to help remove ivy on one prominent city street and thus spared the trees.

The need to educate our school-age children on just how vulnerable the Garry oaks are and how conservation and care can promote their growth is imperative. We plan to partner with educators to develop science curriculum that supports this idea. For Arbor Day 2015, we partnered with the Whidbey Conservation District, Oak Harbor Schools, and the City to help plant Garry oaks at a local elementary

school.

Additional outreach efforts this year yielded the Oak Harbor Garry Oak Tree Tour. This self-guided walking tour was developed in collaboration with City of Oak Harbor staff and the Chamber of Commerce. Twenty-one Garry oaks were included in the tour. We are excited about future plans, which include a Heritage Tree Program and an Adopt-a-Tree Program, both of which will promote replanting in the city.

The Oak Harbor Garry Oak Society is committed to the future of Oak Harbor's legacy Garry oak trees. Interested parties may contact Laura Renninger via the website, www.ohgarryoaksociety.org.

Laura Renninger

Oaks at Armstrong Atlantic State University Arboretum

If you approached three students on the campus of Armstrong Atlantic State University in Savannah, Georgia, and asked them to way to the Arboretum, they might each point in a different direction—and yet they would not be leading you up the garden path: when you are anywhere on the campus, the Arboretum is all around you. It was started in 1993, when the university embarked on landscaping work on its 268 ac/110 ha campus, and over the years a wide variety of plants have been established, creating a remarkable public garden with several extensive collections. Grounds Superintendent Philip Schretter was largely responsible. "When we started there weren't any unusual plants," he says. "There was a lot of grass, Chinese juniper and Chinese hollies and pine trees. We slowly started adding unusual plants."

The Arboretum currently has major collections of camellias, conifers, ferns, and gingers, as well as an International Garden with plants from around the world arranged geographically, and a Primitive Garden that shows how plants have changed over time.

Although Philip has not focused particularly on collecting *Quercus*, oaks are one of the many groups of plants he has tried to expand on campus. Being in USDA Zone 8b, he has focused on species native to warmer climates. "Oaks from Mexico and southeast Asia have performed well for us," he says.

Quercus insignis. **Photo: Philip Schretter**

Many of the plants in the Arboretum, particularly oaks, were provided by IOS member Bob McCartney. According to Bob, Philip has at AASU "the best plant collection in southern United States. He has the climate, site conditions, know-how, and support to successfully grow and display a tremendous variety of plants." Two of the oaks at Armstrong came from acorns the Bob was able to bring back form the 6th IOS Conference at Puebla, Mexico: *Quercus insignis* and *Q. corrugata*. "I gave Philip one tree of each because they were sub-tropical species and we thought they may be able to get away with them. I was delighted to see from his photos how well they have done."

Philip has provided a list of the oak species (i.e., excluding hybrids and cultivars) growing on campus, a total of 33, mainly from southeastern US, Mexico and southeast Asia. If this is what he has already amassed without focusing on oaks, one wonders what will be achieved when he does!

Roderick Cameron

Taxonomy Note

A nomenclatural revision has been recently completed. Work by Susana Valencia, Gabriel Flores-Franco, and Jaime Jiménez-Ramirez examined type specimens in Madrid, Spain (collected by Née in 1791), and have concluded that some name changes are necessary for certain species of Mexican oaks (http://dx.doi.org/10.11646/ phytotaxa.218.3.7). The cliff notes version is as follows. What has been regarded until now as *Quercus acutifolia* should correctly be called *Q. grahamii* (these are not synonyms). *Q. acutifolia* becomes the correct name for *Q. conspersa* (*Q. conspersa* becoming a synonym). A more detailed explanation to come in an upcoming issue of *International Oaks*.

Ryan Russell

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