International Oak Society

Oak News & Notes

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Historic Oaks

Bătrânul Carpaților: the Old Man of the Carpathians

by Roderick Cameron

Bătrânul Carpaților, a 900-year-old *Quercus robur* in central Romania – Source: Associata Carpaterra

This massive *Quercus robur* stands outside the village of Mercheașa, a quiet rural locality in central Romania, and did so unnoticed for most of its 900-year-long life. A contest launched with support of Prince Charles, which invited Romanian children to discover the oldest tree in their village, led to its discovery. It has since been established as the oldest tree in Romania and has become to Mercheașa as the Eiffel Tower is to Paris, attracting tourists and tree enthusiasts from far and wide. It has also taught locals about the importance of protecting the natural wonders that surround their village.

Mercheașa is some 70 km north of the city of Brașov, in the region known as Transylvania—familiar to many for its associations with Bram Stoker's Count Dracula. The term Transylvania means "beyond the forests" and was first recorded in 1075, not too long before the oak would have sprouted. The oak has witnessed many changes as humans of different origin peopled the area (Saxons, Romanians, Hungarians), growing steadily to reach its current dimensions: 9.2 m in girth (i.e., 2.9 m DBH) and 21.3 m tall. The oak was part of a wood-pasture, a type of rural landscape created by Saxons, where trees grow scattered in a grazed landscape previously covered by forest.

A contest to "Find the oldest oak", launched in 2010 by the Mihai Eminescu Trust under the patronage of HRH the Prince Charles, was won by two children from Mercheașa, when they reported on this tree. In 2012 it was declared a National Monument, sponsored by the Carpaterra Association. A fence was erected around it to protect it from grazing animals. It

appears to be in excellent health, with few signs of damage, save five stumps from branches broken off during its many centuries, and some superficially burned bark at the base, perhaps caused by fires lit by cowherds. Prince Charles, a long-time fan of Romania, was also involved in setting up a project to find and measure the oldest and largest trees of Romania, resulting in a website where over 5,000 remarkable trees have been recorded: www.arboriremarcabili.ro. The Mercheașa is currently the second largest *Q. robur* listed on the site. The largest stands in the village of Cajvana in northern Romania. Its girth is recorded as 11.1 m, but images suggest it may have a double stem.

This remarkable oak has been given the name of Bătrânul Carpaților in Romanian, which means "old man of the Carpathians". The Carpathians are a mountain range that runs through the center of the country. The word "bătrânul" derives from the same Latin root as "veteran". Follow this URL for a video that offers a closer look at this majestic tree: www.bit.ly/Batranul

The White Oak in Royal Botanic Gardens Victoria

by Tim Entwisle

Two days after Christmas 2019, one of the largest oaks on Oak Lawn, at Melbourne's Royal Botanic Gardens, fell over. It split in two, with the first tranche falling early in the day, the second, late afternoon. We are not sure why it fell but most likely a mix of old age (these trees live to 300 years or more in natural habitat of eastern and central North America, but in Melbourne oaks and elms grow almost twice as fast as in their natural home, due to our mild winters, and can senesce at a younger age), droughts (including the recent Millennial Drought), strong winds, and the cumulative effects of climate change (we know some oaks will not tolerate higher temps and less rainfall modeled for Melbourne). When I returned to the Gardens from leave a few days later, the tree was a serpentine tangle of ancient wood and still fresh green leaves.

The oak that fell was recorded as *Quercus* aff. *alba* (white oak) on our database, probably a hybrid and most likely (I think) with *Q. robur* (English or pedunculate oak). *Quercus alba* looks a bit like the better-known *Q. robur* but hails from eastern North America and has leaves attached by longer stalks, bluish underneath, and with 3–4 lobes on each side, each often a little further lobed. At a distance, though, it looked to many, including me, like the common *Q. robur*. No matter how you viewed it, this tree was one of the standout specimens among the 6,000 or so growing in Melbourne Gardens. Personally, I was not able or willing to put a date on the tree (and in any case, what would I know?).

The Gardens' first Director (there were two "superintendents" before him, between 1846 and 1857), Ferdinand von Mueller, planted the first oak in

The historic *Quercus alba* at Royal Botanic Gardens Victoria in Melbourne, Australia, before it split and fell

what became the Melbourne Botanic Gardens, a cork oak (*Q. suber)*, sometime after he took up that role in 1857. In 1862 he planted 30 more oaks, some in the area destined to become Oak Lawn and including one

The white oak, shortly after collapsing
© Royal Botanic Gardens Victoria

recorded white oak near the original lake, distant from today's Oak Lawn.

We don't know when this particular white oak was planted. But the possibilities are:

- It was planted by Mueller (at some unknown time but possibly in the early 1860s) but not recorded in any of the records we have remaining today. It could be in its original location or transplanted. We have no evidence to refute or support this option.

- It was a white oak that we know was planted by Mueller near our lake in 1862 or on our Princes Lawn before 1865, then moved at some later date (presumably by William Guilfoyle, Mueller's successor as Director and rather fond of moving trees of all ages and species) to what became, or what was, Oak Lawn. We have no record of Guilfoyle moving this particular oak.

- It was planted after 1865, during the tenure of Mueller or Guilfoyle.

- It was planted after Guilfoyle left the role of Director in 1909

We have one tantalizing piece of information that suggests a mid- rather than late-nineteenth or twentieth century planting. In 1908, William Guilfoyle published a small booklet called *Handbook, or, Descriptive guide to the Botanic Gardens, Melbourne with plans, views, etc.* In there he names and circumscribes the "Oak Lawn" for the first time, and represents all trees growing in the Gardens with a black dot on his map. One of these dots is where our white oak once stood, and the first tree mentioned by Guilfoyle in his section on the Oak Lawn in the *Descriptive tour through gardens* section is what he describes as a "fine example of *Quercus alba*, the White Oak." For that tree to be a fine example in 1908 suggests it was already of some stature and age.

Today in the Melbourne Gardens of Royal Botanic Gardens Victoria, there are 127 oak trees, representing 71 species of oak. Forty-six of the oak trees are in Oak Lawn, including 38 of the oak species in the Gardens. While we lost one tree at the end of 2019, we plan to replace that *Quercus* aff. *alba* with *Quercus lobata* (valley oak), which our modeling tells us will cope better with Melbourne's climate over the next century.

Further reading: "Amid the mourning, new life for one of Melbourne's most-loved trees," Brisbane Times, June 27, 2020 (www.bit.ly/white-oak-RBGM)

Ascent of the Oaks

by Editorial Staff

An article by IOS members Andrew Hipp, Paul Manos, and Jeannine Cavender-Bares made the cover of *Scientific American* this month. It recounts how advances in genomics have allowed researchers to reconstruct the evolutionary history of oaks and show how they came to dominate the forests of North America. These findings may help predict how oaks will fare in the face of climate change, and thus they will have implications for managing oaks to ensure their survival as the planet warms.

In clear, fluid prose, easily accessible to the layperson, the authors guide the reader through the latest discoveries regarding the history of oaks' diversification and spread through the Northern Hemisphere. Classification of oaks is complicated by variation within species—and hybridization between them. While previously researchers were able to discern the overall branching structure of the oaks' tree of life, using only sequences of DNA from chloroplasts and

a few nuclear genes, since 2008 new molecular techniques have allowed them to infer oak evolutionary history. Restriction-site associated DNA sequencing is being used to read short regions of DNA, and then statistical methods are employed to reconstruct the order in which species have branched from common ancestors.

It is not certain when or where oaks arose, but the first evidence of their existence are fossilized pollen grains dated to about 56 million years ago, found near what is now Salzburg, Austria. This would have been part of the northern section of the landmass comprising North America and Eurasia, which in the early Eocene were joined by land bridges spanning the Atlantic and Pacific Oceans. Soon the genus separated into two major branches. Then, as global temperatures started to descend, oaks moved south from the land bridges and the geographical division between the two clades became defined: subgenus *Cerris* would be limited to Eurasia and North Africa, and subgenus *Quercus* would be limited largely to the Americas (but for two branches that also show up in Eurasia).

In North America, ecological opportunities arose as the tropical forest and broad-leaved (as opposed to needle-leaved) evergreen forests that dominated the continent 56 million years ago were pushed south or driven to extinction by decreasing temperatures. Red and White Oaks moved south into the spaces that opened up, splitting into two lineages either side of the Rocky Mountains. They would in time form the oaks of California and the Pacific Northwest in the west, and in the east the oaks of Eastern North America, which in turn would split into three main branches: a northeastern lineage, a southeastern lineage, and a primarily Texan lineage. Between 10 and 20 million years ago, probably via the Texas lineage, the oaks moved into Mexico.

These oaks were cold-adapted, so as they migrated south to Mexico they climbed to higher elevations, encountering topographic variation and different levels of water availability. Populations became ecologically distinct, limiting movement of genes to within populations rather than between them. As mutations and genetic rearrangements accumulated and distinguished populations, species were born. Speciation rate was high as the Mexican oaks moved into the mountains; this had not been possible in the Rockies as they were not able to survive the combination of short growing seasons and cold winters. The increased diversification of Mexican oaks was duplicated by the fact that Red and White Oaks had separated before moving south, so the two lineages evolved in parallel. This may explain the species richness and abundance of oaks in the Americas.

As Red and White Oaks spread south, they repeatedly

Quercus geminata **(upper left),** ***Q. chapmanii*** **(center), and** ***Q. myrtifolia*** **(right), three of the species mentioned in the study, here seen growing together in Juno Dunes Natural Area, Florida, USA**
© Dirk Giseburt

solved similar ecological challenges. As a result, we often find them growing together in the same habitats. But closely related oaks within the same lineage are not found together: species transition broadly from one to the next as you move through different ecological spaces—for example, as you hike uphill. In the Chiricahua Mountains of Arizona, drought adaptation separates close relatives along an elevation gradient, while in flatter Florida, soil moisture availability and fire intensity structure oak communities. Across the United States, trees with convergent traits from the Red and White Oak lineages tend to grow together.

Oaks form what is called a syngameon, in which distinctive species persist in spite of ongoing gene flow caused by hybridization. Genes migrating between species might help oaks adapt to novel environments. Understanding when, where, and how oaks became so diverse is crucial to understanding how oaks will resist and adapt to rapidly changing environments. Hybridization was key to the rapid response of oaks when they migrated rapidly as continental glaciers receded starting around 20,000 years ago. Oaks may face threats from fungal and insect diseases if they do not evolve quickly enough to resist them. The challenge now is to figure out how differentiation and the movement of genes between species will influence oak evolution. Perhaps this understanding will help predict what our forests will look like a century from now, and perhaps it can guide our planet to manage longer-term survival of oaks.

The full article, “How Oak Trees Evolved to Rule the Forests of the Northern Hemisphere”, is available on the *Scientific American* website. It is behind a paywall, but the article can be purchased individually for a modest fee. You can access it here:
www.bit.ly/how-oak-trees

The long limbs and trunk of a *Quercus velutina* frame the main house at Bayard Cutting Arboretum © Bayard Cutting Arboretum

Gardens & Arboreta:

Bayard Cutting Arboretum

by Kevin Wiecks

Bayard Cutting Arboretum is a 691-acre arboretum in Great River, New York, USA. It is located along the Connetquot River on the south shore of Long Island. Our mission is to "provide an oasis of beauty and quiet for the pleasure, rest, and refreshment of those who delight in outdoor beauty; and to bring a greater appreciation and understanding of the value and importance of informal planting." Keeping to that mission, the Arboretum boasts a unique collection of conifers—many being the largest in our region—a holly collection recognized by the Holly Association of America, vast natural areas that preserve the local ecology of Long Island, numerous specialty collections of woody shrubs, and an oak collection with great historic and horticultural importance.

A view of Oak Park © Bayard Cutting Arboretum

Oak Park, our ten-acre oak collection, was designed utilizing plans conceived by the noted landscape architecture firm of Fredrick Law Olmstead in 1887. Some of the original black oaks still stand in this area. We wish to preserve the historic integrity of this collection by making the necessary horticultural adaptations. The collection contains 30 species of oak and just over 200 specimens. While *Quercus coccinea* and *Q. velutina* are the most prevalent, making up half the collection, new species and cultivars are continually being introduced. In addition to the species native in this area, we are trying some from further afield and of uncertain hardiness here, such as *Q. chrysolepis* and *Q. virginiana*. We have also been growing oaks from southern provenances that will withstand climate change stress. The natural areas of the arboretum possess many of the native oaks of the northeastern United States.

The IOS has greatly influenced the direction of our oak collection. We utilize relevant articles in *International Oaks*, the IOS Journal, to educate our interns, and with the assistance of Steve Roesch we have received acorns from various IOS members. We recently submitted our list of oak species to *Cultivated Oaks of the World*, the IOS project that pools data of oaks in collections worldwide.

We hope to become an active part of the Society going into the future and invite everyone to visit!

For more information, visit our website:
www.bayardcuttingarboretum.com

Cultivar Close-Up:

Bokrijk Cultivars

by Editorial Staff

In 2014, Jef Van Meulder published an article (in Dutch) in the Belgian Dendrology Society's Bulletin, presenting six oak cultivars that had been selected from trees growing in Bokrijk Arboretum, Belgium, where Jef was Curator of Living Collections from 1978 to 2017. All the selections are from garden-sourced acorns, suggesting the horticultural potential that this type of seed—often disparaged—can have. The cultivars are presented below, with a summary of their history and some of their salient characteristics. Registration of these names is in progress and they will be published in *International Oaks*, the IOS Journal, in due course.

Quercus 'Buksenrake Mystery'

Four of the cultivars originate from seed collected by Jef in Arboretum Paarl in South Africa, which he visited in 2000. The Arboretum, founded in 1957, is located in Drakenstein Municipality in Cape Province, on the banks of the Berg River. When Jef visited it was in a state of slight neglect, but as he says, "you can learn many things from a neglected arboretum, especially which trees thrive without human assistance." *Quercus canariensis* and *Q. rugosa* had done particularly well, and acorns were collected from these species and also from *Q. ilex* and from a tree identified as *Q. invaginata* but not listed in the Arboretum's catalog. It is a Mexican species, rare to find in cultivation (especially in 2000), but appeared to conform to the characteristics of that species, especially the acorns with their revolute cupule rims.

Corky bark on *Quercus* 'Buksenrake Mystery' © M. Weckx

Seed collected from this putative *Q. invaginata* produced an evergreen tree that has shown remarkable growth, reaching a height of 15.5 m by 2014. Another notable characteristic is its winter hardiness: even in the severe winter of 2009-2010, which saw temperatures of -21 °C, it suffered no damage to leaves or trunk. It is clearly of hybrid origin, and the likely pollen donor is a *Q. ilex* growing next to the female parent. *Quercus invaginata* is in section *Quercus*, and intersectional hybrids with *Q. ilex* (section *Ilex*) do occur. Other possible parents growing in the Arboretum are *Q. robur*, *Q. canariensis*, *Q. cerris*, *Q. suber*, and *Q. rugosa*.

Leaves and aborted acorns of *Quercus* 'Buksenrake Mystery' © M. Weckx

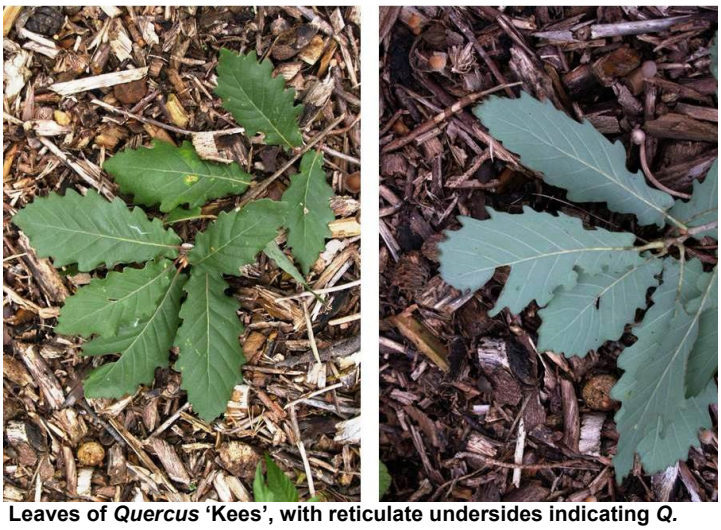
As the smooth trunk is reminiscent of young *Q. cerris* trees, it was initially thought that it might be the hybrid *Q.* ×*crenata* (*Q. suber* × *cerris*, formerly known as Q. ×*hispanica),* and that the seed had been mixed up, but when the tree started fruiting, the cupules indicated no section *Cerris* influence, but rather that of *Q. invaginata* or *Q. ilex*. It is interesting to note that the tree at Bokrijk has not produced fertile seed, only aborted acorns that never fully form. As the identity of the parents could not be firmly established, the cultivar has been named 'Buksenrake Mystery' (Buksenrake is the former name of Bokrijk, it means "a place on the moor where beech trees grow"). It has been propagated by grafting on *Q. cerris* stock; time will tell whether this was the best choice.

Quercus ilex 'Thimon'

Another cultivar of South African origin selected at Bokrijk grew from seed from a *Q. ilex* at Arboretum Paarl. It was given away as a seedling by Bokrijk and now grows in a private garden in nearby Diepenbeek. It is distinguished by its vigor and winter hardiness. Like *Q.* 'Buksenrake Mystery' it survived unscathed both the severe winter of 2009–2010 and another particularly cold season two years later, despite growing in a backyard without special protection. Again, this was thought initially to be *Q.* ×*crenata*, but once it fruited the acorns revealed its true colors as being *Q. ilex*. The seedling is about twice as high as a dozen other seedlings of the same origin. The tree was a "birth tree", planted to honor the son of the house, Thimon, so the same name was used as the cultivar epithet.

Quercus 'Kees'

A third cultivar sourced from Arboretum Paarl was grown from a batch of acorns collected from *Q. rugosa.* Candidates for the male parent include *Q. canariensis*, of which there several giant specimens in the Arboretum, and *Q. robur*, widely planted as avenue trees. The grafted plants of this cultivar have turned out to be quite sensitive to oak powdery mildew (*Erysiphe alphitoides*), a fungal disease that is common on *Q. robur* but not at all on *Q. canariensis*. In his 2014 article, Jef concluded that the cultivar is most likely a cross of *Q. rugosa* and *Q. robur,* a hybrid named as *Q.* ×*warburgii* by Aimée Camus in 1939 and also known as Cambridge oak, due to the fact that a famous specimen grows at the Cambridge Botanic Garden. However, the IOS Registrars are of the opinion that *Q. canariensis* influence is evident and that *Q. rugosa* may not be involved, hence the name is due to be registered as *Q.* 'Kees', with no hybrid epithet.



Leaves of *Quercus* 'Kees', with reticulate undersides indicating *Q. rugosa* influence © Jef Van Meulder

Interestingly, powdery oak mildew, which in Europe only attacks young trees of *Q. robur* and is not much more than a nuisance, in South Africa has proven fatal to the old oaks widely planted by Dutch settlers centuries ago. They are being replaced by *Q. cerris* and *Q. nigra*, which according to Jef is a pity, as *Q. canariensis* grows particularly well there and would be a better choice. Bokrijk had several beautiful trees raised from this seed batch, but all save one succumbed to the dread winter of 2009–2010. The surviving specimen was selected for propagation; its leaves have a reticulated underside, but it is not as close to *Q. rugosa* as the seedlings that died. It is generally deciduous, but can be semi-evergreen in a mild winter. It was named *Q.* 'Kees', after Mrs. Liesbeth Kees, who had been appointed director of domain Bokrijk shortly before the cultivar was described.

Quercus ×*crenata* 'Mr Lieben'

The final South African–sourced cultivar grew from seed collected at Arboretum Paarl, but records of further details have been lost, so what its parents might

Leaves of *Quercus* ×*crenata* 'Mr Lieben' © M. Weckx

be is a matter of conjecture. It is similar to *Q. cerris*, though its bark indicates it has borrowed some genes from *Q. suber*. Unlike typical *Q. cerris*, however, it is wholly evergreen and has kept its leaves almost entirely through Bokrijk's harsh winters. Acorns might help settle the issue, but they have not as yet been observed.

According to Jef, this is a promising oak that could "create a furor in urban environments" in Northern Europe, where native species usually don't thrive in the cities' heat islands. The selection, *Q.* ×*crenata* 'Mr Lieben', was named after one of Bokrijk's gardeners.

Quercus ×*haynaldiana* 'Bokrijk'

The two remaining Bokrijk cultivars are also grown from garden-sourced seed. *Quercus* ×*haynaldiana* 'Bokrijk' is a seedling of a *Quercus robur* Cristata Group at Trompenburg Gardens, from acorns collected at an oak study day held there under the auspices of the International Oak Society. According to Dick Van Hoey Smith, at the time director of the garden,

Leaves and acorns of *Quercus* ×*haynaldiana* 'Bokrijk' © Jef Van Meulder

the *Q. robur* Cristata Group had that year flowered at almost exactly the same time as a neighboring *Q. frainetto*, so the acorns of the former may turn out to be a cross with the latter.

Jef put this to the test at Bokrijk, and though most seedlings were of inferior quality and discarded, two were retained for further evaluation. Of these, one was selected and, based on Mr. Van Hoey Smith's comments, was described as a *Q.* ×*haynaldiana*, i.e., the cross of *Q. robur* and *Q. frainetto* (named by Simonkai in honor of the Hungarian archbishop and naturalist Lajos Haynald). Its leaves have the typical crisped look of *Q. robur* Cristata Group, but they are much more robust.

***Quercus* ×*vilmoriniana* 'Limburg'**

This selection was grown from seeds collected in 1989 from the ortet tree of *Q.* ×*vilmoriniana* at Arboretum national des Barres in France. The mother tree, a famed cross of *Q. dentata* and *Q. petraea* planted by Maurice de Vilmorin in 1894, died three years later.

Leaf-shape variation in *Quercus* ×*vilmoriniana* 'Limburg' is to be expected in an F_2 hybrid © M. Weckx

It was selected from amongst its siblings for being particularly healthy and for its beautiful dark green foliage, similar to *Q. petraea* but for the dense felt on the undersides, attributable to its *Q. dentata* ancestry. Young plants grafted on *Q. robur* rootstock have done well so far. The cultivar was named after the Belgian province of Limburg, in which Bokrijk Arboretum is located.

GCCO Newsletter Published

by Amy Byrne

The Global Conservation Consortium for Oak (GCCO) sent out their first quarterly newsletter in late July. The newsletter provides updates on current GCCO activities and shares funding opportunities, publications, and upcoming events. This issue covers our kick-off meeting for the GCCO U.S. region that was held online on May 28–29, as well as sub-regional updates from Eastern U.S., Texas and the Southwest, and Western U.S. You can view the newsletter here: www.bit.ly/GCCO-newsletter.

The GCCO was launched in February 2020; led by The Morton Arboretum, in partnership with Botanic Gardens Conservation International (BGCI), the GCCO aims to mobilize a network of institutions and experts to work collaboratively in order to develop and implement a comprehensive conservation strategy that prevents the extinction of the world's oak species. It was formed to deliver integrated conservation of oak species through practical ex-situ (in cultivation) and in-situ (in the wild) conservation and to disseminate species recovery knowledge. For more information, visit the GCCO webpage: www.bit.ly/GCCO-webpage.

GLOBAL CONSERVATION CONSORTIUM
OAK

If you are interested in reading the first issue and receiving updates on the GCCO, subscribe to the newsletter: www.bit.ly/GCCO-subscribe.

Species Spotlight:

Quercus stenophylloides Hayata

by Joeri Strijk

Quercus stenophylloides (local name 狹葉櫟 (xiá yè lì), or Arishan/Alishan oak) is a medium-sized evergreen oak (15–18 m tall) restricted to central and northern Taiwan. Boles can become quite large, reaching up to 40 cm in diameter. On Taiwan, the species is thought to be confused with *Quercus salicina* (a suspected closely related species from Japan and Korea), as it also occupies substrates more typical for this species, such as sandstone ridges.

The branchlets of *Q. stenophylloides* are slender, gray, lenticellate, and glabrous. Its petioles are up to 1.5–2 cm long and glabrous. Leaves are oblong-elliptic to lanceolate, 7–12 cm long and 1.5–3.5 cm broad, generally with a leathery texture. Abaxially, leaves are covered with a whitish meal-like powder

***Quercus stenophylloides* acorns and leaves © Ming-I Weng**

and prostrate simple hairs but are usually glabrescent. The adaxial surface is light green.

The leaf apex is acuminate to caudate, and its base is narrowly acute to rounded. The leaf margins are dressed with short, awnlike serrations. Leaves can have up to 11–13 pairs of secondary veins, which extend into the leaf serration itself. Tertiary veins on the abaxial surface are inconspicuous to obscure. Pendulous male inflorescences are often very abundant and give the tree crown a drooping look early on in the growing season, together with the freshly flushing leaves. Female inflorescences are 2–2.5 cm long.

***Quercus stenophylloides* in natural habitat © Ming-I Weng**

Cupules generally appear in clusters of 6–7, are cup-shaped and up to 1–1.5 cm high and 1.2–1.5 cm across. Cupules can enclose up to ½ of the nut. The exterior and interior of the cupule are both grayish-velutinous. The cupule wall is very thin, mostly less than 1 mm thick.

The exterior of the cupule is covered with bracts, arranged in 6 or 8 rings with slightly dentate margins. Nuts are glabrous, ellipsoid, and 1.7–2 cm long and up to 1.5 cm in diameter. Scars are flat and small, up to 5 mm in diameter. The stylopodium (acorn apex) is persistent and conspicuous in this species, bearing 3 clear rings.

Flowering occurs from April to May. Fruiting occurs roughly from September to October of the year following the year of the flowering season (i.e., acorns mature in 2 years). Ripening acorns turn from fresh green to dark brown.

This oak occurs throughout broad-leaved evergreen forests in upland areas, between 1,100 and 2,600 m above sea level, although it is occasionally reported from lowland areas. It is rated as hardy to zone 9 of the USDA system, but it is not often found in cultivation.

Acorns of this species form an important food source for Asiatic black bears (*Ursus thibetanus formosanus*). Together with *Q. glauca* and *Q. tatakaensis*, acorns from *Q. stenophylloides* form the main sources of food in the form of hard mast during the winter months, when protein-rich food is scarce. This species-specific preference and dietary importance highlights the need to preserve an intact tree flora on Taiwan, and emphasizes the role oak species play in survival of the large fauna elements.

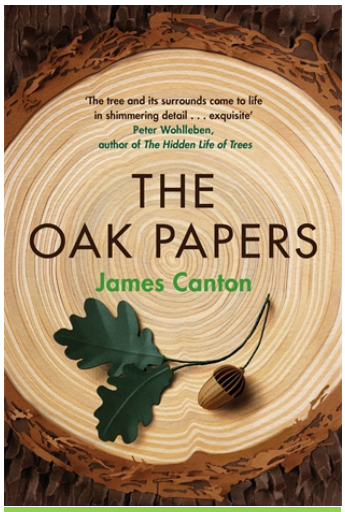
The epithet *stenophylloides* means "resembling *stenophylla*". Hayata notes in his description that the species is similar to *Q. stenophylla* (Blume) Makino, a synonym of *Q. salicina* Blume; *stenophylla* means narrow-leaved, derived from the Ancient Greek: στενος (stenos) = narrow, and φυλλον (phillon) = leaf. The common name derives from the Arishan (or Alishan) mountain range in central Taiwan.

Book Review:

The Oak Papers

by Roderick Cameron

James Canton's memoir records his progress on a quest for knowledge. Seeking solace in a moment of personal crisis, he starts to frequent an ancient oak that he passes every day on his way to work. After sensing that he finds an indefinable sense of tranquility by its side, he becomes interested in the tree's history, its relationship with other forms of life, and the important role of oaks in human civilization and culture. Early on in his investigations, he learns of accounts of oak worship and that the high priests of the oak were the Druids, whose name derives from the ancient terms *dru* meaning "oak" and *wid*, "to see or know". The Druids were those who had "oak knowledge", and this is what the author yearns to achieve: "I am seeking oak knowledge. I have experienced what so many other people know. That being by an oak tree has some kind of calming effect. My mind is stilled. I am able to accept the present. I am able simply to be myself more easily. And in those moments I don't seek answers as to why that is. I simply accept the composed balm which the presence of oaks offers."



The Oak Papers
James Canton
Canongate, Edinburgh, 2020
237 pages

His entry into the world of oaks is by way of the 800-year-old Honywood Oak on the Marks Hall Estate in England. His guide is the curator of the arboretum there, who tells him of the tree's history. It is the sole survivor of a large number of veteran oaks, the bulk of which were felled in the 1950s to fuel a widow's vengeance (or so local gossip has it). His guide teaches Canton to observe the many organisms that depend on the oak and to appreciate the important role the tree plays as kingpin of the ecosystem it sustains. James is spellbound by the abundant harvest of critters they are able to collect by stretching a sheet under the oak and shaking one of its limbs. He is carried aloft by an arboriculturist's harness and observes the world from the oak's point of view.

The story is told as a series of diary entries that recount his observations of nature when he sits by the oak, recording the discoveries he makes in his research and his conversations with his guides. The first section, entitled "Seeing the Oak", is followed by "Knowing the Oak", in which he gains a deeper understanding of the tree and the role of oaks in human culture and literature, from Homer's Odysseus—who hears in the rustling of the leaves of an oak the oracle's advice that he should return home to Ithaca—to D.H. Lawrence—who feels that while under an oak "my whole soul's fluid / Oozes away from me as a sacrifice steam / At the knife of a Druid." But as he draws closer to his subject and his goal of acquiring oak knowledge, he finds that there is a transcendent aspect of the oak's presence that goes beyond what can be found in libraries or even what words could express. This leads to the final section of the memoir, "Being with Oaks", where he tackles more mysterious issues regarding the effect oaks might have on humans' minds and well-being, moving beyond ecology and history to art, psychology, and spirituality.

The Honywood Oak at Marks Hall Estate, Essex, UK, one of the main characters of *The Oak Papers*
Source: twitter (@markshallestate)

This is the central and most compelling part of the book, where he encounters other oaks and converses with experts in different disciplines, who share their oak experiences: we meet the painter Stephen Taylor, who painted fifty paintings of a single oak as a way of healing psychological trauma; the woodworker Dylan Pym, who steam-bends wood into curved pieces of furniture of surreal beauty, and who tells of his epiphany when falling into the hollow trunk of an oak; the psychologist Mike Rogerson, who explains how phytoncides—chemicals given off by plants—can boost our immune system; the writings of Monica Gagliano, who invites us to think the unthinkable and consider the possibility that plants can learn by association; and James's friend Sarah, who encourages him to move beyond trying to understand the oak and to become it instead: "Drop the intellectualisation. Just seek to become."

As the book draws to a close, there is no formal denouement, but Canton achieves a sense of closure that transmits to the reader some of the peace and calm that he has found by being with oaks. A minor character in the chronicle is a woman James finds cutting her lawn with a pair of scissors. No further details are provided, but it is an eloquent metaphor of a soul in

IOS Service Awards

Call for Nominations

The International Oak Society Service Awards honor individuals (non-members as well as members of the Society) who have devoted significant long-term efforts to the genus *Quercus* and or the advancement of the goals of the IOS. There are two types: the **Lifetime Service Award** (for individuals who are retired) and the **Special Service Award**. Recipients will be selected by the IOS Board prior to the 2021 Conference in Taiwan, where the Awards will be presented. IOS members are invited to nominate anyone they consider deserves an IOS Award. Nominations for both Awards should be sent before January 31, 2021 to the IOS Secretary, Jim Hitz, secretary@internationaloaksociety.org along with a note specifying the reasons for the nomination.

need of solace, such as we imagine the author to be when he started on this journey. Late in the tale, he passes by her garden again, and sees that "some good soul has mown her lawn." He feels gladdened at the sight, and in the same way the reader feels gladdened to have accompanied James on his journey of healing through oaks.

For the seasoned quercophile, much of what Canton finds will be familiar ground, though there will surely be a few new nuggets of oak lore to glean; for a neophyte, this book will serve as a bounty of information and sensations about our favorite genus (though focused almost exclusively on the two oak species native to England). The writing style tests the limit of self-indulgence and is at times self-conscious ("Below is the chuckle of corvids clustered somewhere beyond, a covey by the burnt oak.") James Canton teaches Wild Writing at the University of Essex, and certainly there is no lack of descriptions of wildlife, which at times are even repetitive: time and again the author returns to the oaks, rests his back against the trunk, names the birds whose call he hears, feels a stillness come upon him. But perhaps it is this cyclical iteration of detail that conveys the peace and calm that oaks have communicated to the author and may seep through to the reader.

You can listen to a reading of excerpts from the book here: www.bit.ly/OakPapers (available till September 1, 2020) and an interview with James Canton here: www.bbc.in/2YfSXbt. The book has been published in the UK and in Australia/New Zealand. It will be published in the US/Canada in early 2021.

Oak Artists:

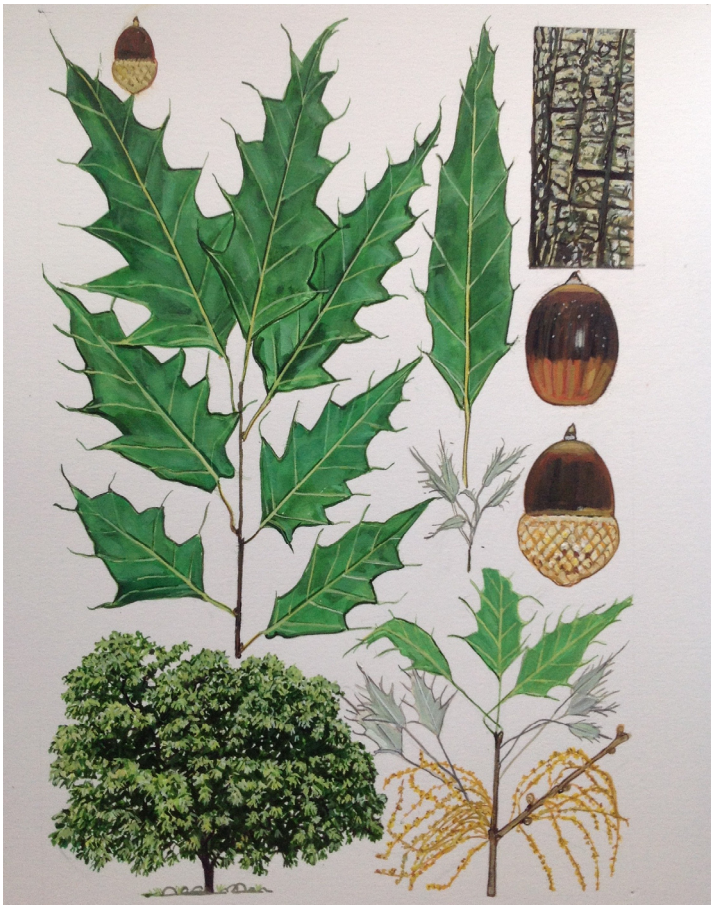
Illustrated Oaks of the World

by David More

I began work on the oaks in 2013. I had just completed illustrating the Princeton Field Guides to *Trees of North America* and had funds to work on another project. I decided on an illustrated project of the oaks of the world.

As a first step, I joined with the IOS so I could receive their publications. I also had access to the *Oak Name Checklist* and their leaf scans. I also linked up with Eike Jablonski who has been incredibly helpful sending me photos and scans. He helped in translating the text in Le Hardÿ de Beaulieu and Lamant's *Guide illustré de chênes*, a fantastic photo guide of oaks around the world. Eike has been invaluable and it would not have been possible to complete the work without him. In addition, he sent images of many varieties and new cultivars that have been raised in nurseries in Europe and North America. Some of these will be shown fully for the first time in this project. I also had access to images of many hybrids from North America thanks to Ryan Russell.

European oaks (left to right) *Quercus vulcanica*, *Q. aucheri*, and *Q. alnifolia*, as drawn by David More



David More's illustration of *Quercus albocincta*

Of course, with the wonders of the internet people could send me images of living material of whole trees. I already had a reservoir of photos of oaks growing here in the UK from previous publications I illustrated, but I was astounded when I started to discover the oaks that grow all over the world—and their many forms!

As work progressed, I contacted many authors and oak enthusiasts from around the world. They were very generous with their time and sent me more photos. There is a long list of the people who have assisted my work.

The illustrated area measures 215 × 143 mm. The artwork is in gouache (watercolor pigment mixed with

chalk to give opacity). This allows me to produce photo-realistic images in color. Most of the artwork is from photos of living material, but sometimes this was not available so Eike helped here by suggesting the colors of dried-out herbarium material.

I outline the shapes of the leaves and trees and then infill with paint until I have achieved the right surface textures, veins, etc. The acorns have been shown as close-ups for detail and the actual size of the acorns scaled up to the maximum leaf size of the species. All the artwork is on acid-free paper so it should last a long time!

From the Board

by Shaun Haddock

I imagine that there are now few people in the world who have not been affected in some way by the COVID-19 crisis, and for most of us it still controls much of our daily behavior, but I sincerely hope that neither you nor your families have been infected by one of the more serious manifestations of this scourge. Your Board has thankfully been able to continue deliberations as usual, as the wide geographical spread of members over a nine-hour time variation has always required remote communication.

The most important item discussed by the Board in their recent "meeting" was the approval of the Finance Report for 2019 and the budget for 2020, which you can find at www.bit.ly/IOS-Finance. I am more than happy to say that the Society remains comfortably solvent. Thanks to our generous donors we remain on an even keel, even with the cost of the 2018 Conference, which includes the publication and mailing of the superb (and record-breaking!) Proceedings. I would also like to point out that the annual cost of printing and mailing this newsletter adds up to around $1,200 US. At present 45% of our membership receive a printed copy of *Oak News & Notes*, so significant savings can be made if still more sign up to receive it electronically. You can check your account in the Member's Menu on the website (please log in first) to see whether "Newsletter by email" is set to "No". If it is and you would like to receive the newsletter by email only, please write to: membership@internationaloaksociety.org and we will change your preference.

The donations to the new Oak Conservation and Research Fund appear in the 2019 Report and the 2020 Budget, though of course they are not available to the Society for its running costs. Although within sight, total donations remain short of the $40,000 target which was set in order to match the magnificent $20,000 donation by Mark and Jolly Krautmann. These are difficult times for many, but please consider donating to this Fund if you have not already done so: the times were already becoming difficult for oaks in many parts of the world. Online donations can be made at www.bit.ly/SaveOaks. It is planned that a call for proposals for aid from the Fund will go out in September.

Other items up for discussion were: upcoming Conferences; nominations already received for the 2021 Lifetime Service and Special Service Awards (see elsewhere in this newsletter how you can make your own nominations); revised Membership and Journal Order forms; and (not relevant to IOS members) putting the final touches to the online ordering of Journal articles by non-members.

Regarding our planned Conference in Taiwan in 2021, in the event of a major resurgence of COVID-19 the Board has decided not to think of changing the venue, but to consider postponement instead. A decision will be taken in December, by which time we will have seen what effect the recommencement of the northern winter will have had. The 2024 Conference will almost certainly return to the USA.

Whilst on the subject of events and travel, the virus has caused the postponement of all our IOS events for this year. The UK has recently started to impose sudden quarantines almost without warning, so an autumn date for the Oak Open Days in Wales now seems overly optimistic: if the situation allows, it will be programmed for the middle of 2021. Despite the allure of more than just botanical interest, we were struggling to find sufficient participants for the Israeli Tour before the virus became an issue, so sadly this will also have to go on hold.

In "From the Board" in the previous *Oak News & Notes* I appealed to those whose membership expired at the end of 2019 to renew. Since then much has occurred to concentrate minds elsewhere, but thank you to those who have done so. If you are unsure of your membership status, you can check by logging into the IOS website and clicking on "My Account" in the Member Menu. You can also renew online clicking on "Renewal" in the same Member Menu. If you run into difficulties, contact Secretary Jim Hitz by writing to membership@internationaloaksociety.org

Wishing good health to all!

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Submissions for the Newsletter

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