



Oak News & Notes

THE NEWSLETTER OF THE INTERNATIONAL OAK SOCIETY, VOLUME 15, No. 1, WINTER 2011

Fagaceae at the Kruckeberg Botanic Garden

At 90, Art Kruckeberg Looks Back on Oak Collecting and "Taking a Chance"

Visiting Arthur Rice Kruckeberg in his garden in Shoreline, Washington—near Seattle—is like a rich dream. With over 2,000 plant species on the 4 acres, and with stories to go with every one, the visitor can't hold all the impressions together for long. Talking with Art about his collection of *fagaceae* captures one slice of a life and also sheds light on many other aspects of his long leadership in botany and horticulture in the Pacific Northwest of the United States.

Art Kruckeberg arrived in Seattle in 1950, at age 30, to teach botany at the University of Washington. He grew up in Pasadena, California, among the canyon live oaks (*Quercus chrysolepis* Liebm.) and obtained his doctorate at the University of California at Berkeley. The late John Tucker, renowned scholar of oaks, was a classmate at Berkeley.

In the 1950s, Art and his department chair, C. Leo Hitchcock, led field botany classes in summer for 9 weeks of camping and backpacking in many areas of the American West. These courses brought Art into contact with many oaks in their native habitat. In places like Whisky Creek and the west fork of the Illinois River Valley in southern Oregon, Art got to know the shrubby oaks that he now loves the best—*Q. garryana* var. *breweri* (Engelm.) Jeps., *Q. vaccinifolia* Kellogg, and *Q. sadleriana* R.Br.ter. In the latter place, with serpentine soil, you can find all three growing together—a picture that is reproduced in miniature at the Kruckeberg garden, though the soil in Shoreline is weathered glacial till.

Another trip across Arizona and into Mexico included a week's camping at the Chiricahua National Monument, where Art saw the silverleaf oak, *Q. hypoleucooides* A.Camus, for the first time. This tree now also stands out at one end of the lower meadow in Art's garden.

In 1958, Art and his late wife Mareen bought the farmhouse and acreage where the arboretum now stands. Art's friend Carl English, director of the public gardens at the navigation locks in Seattle, gave them many of the first plants for the new garden. Among them—now the oldest oaks in the garden—were a *Q. chrysolepis* that they planted directly in front

of the house; other species are from the southwest U.S., and *Q. myrsinifolia* Blume and *Q. phillyraeiodes* A.Gray from Japan. The *Quercus* collection now includes about 50 species, some planted together in what was an open meadow and others interspersed among many towering specimens of Douglas fir, *Pseudotsuga menziesii* (Mirb.) Franco, the most iconic native conifer.

Though the major segment of the oak collection is drawn from California and southern Oregon, many happy years of international seed exchanges and ordering from gardens around the world have extended the variety. A friend in Turkey supplied *Q. trojana* Webb, *Q. pubescens* Willd., and—another shrubby favorite—*Q. pontica* K.Koch. Art collected acorns himself from under an unlabeled oak he didn't know in the Missouri Botanical Garden and then learned from staff there that it was *Q. mongolica* var. *grosse-serrata* Bl. For Art, another of his own collections with a romantic association was *Q. kelloggii* Newb. from roadsides among vineyards in California's Napa Valley.



Dr. Arthur Rice Kruckeberg
(Roseann Barnhill)

Another of Art's favorites—also a shrub—is the spiny *Q. durata* Jepson, endemic to serpentine soils in California. Art's initial fame in botany in fact was related to serpentine soil, as he was the first to demonstrate, in his doctoral experiments at the Berkeley Botanical Garden, the existence of ecotypic variation within species—"edaphic races" as he called them. He collected seed of a jewelflower, (*Brassicaceae*), some from a sandstone-derived soil near Napa Valley, California, and some from serpentine in Napa and Lake Counties, and found that the serpentine-native seed would grow in the non-serpentine soil, whereas the reverse did not occur. (In 2010, a student of Art's designated a subspecies of a jewelflower, *Streptanthus glandulosus* subsp. *arkii*, in Art's honor. This may be the first time the initials of a person's name have been used as a species epithet!)

Yet another shrubby prize in the garden is a *Q. calliprinos* Webb from a source in Israel, which grows in robust good health across a path from one of its analogues from California, *Q. berberidifolia* Liebm. (formerly *Q. dumosa* Nutt.).

Fagaceae at the Kruckeberg Botanic Garden

With oak species numbering about 50, the genus constitutes a small part of the diverse collection in the arboretum. When a student of Estella Leopold, paleobotanist and Art's former colleague in the University of Washington botany department, once came for a visit, she said, "Professor, this is a Tertiary garden!" What she saw were all the Asian species – *Cornus kousa* Hance, *Cercidiphyllum japonicum* Siebold & Zucc., etc., that had once populated western North America during the Eocene Epoch (55-34 mya) of the Tertiary Period. Among the monarchs of the garden is a close oak relative, the tanbark "oak" of California, formerly known



Quercus vaccinifolia Kellog (Roseann Barnhill)



Quercus sadleriana left and center back (tall); *Quercus vaccinifolia*, center foreground (short). (Vicki Demetre)



Notholithocarpus densiflorus var. *echinoides* (Vicki Demetre)

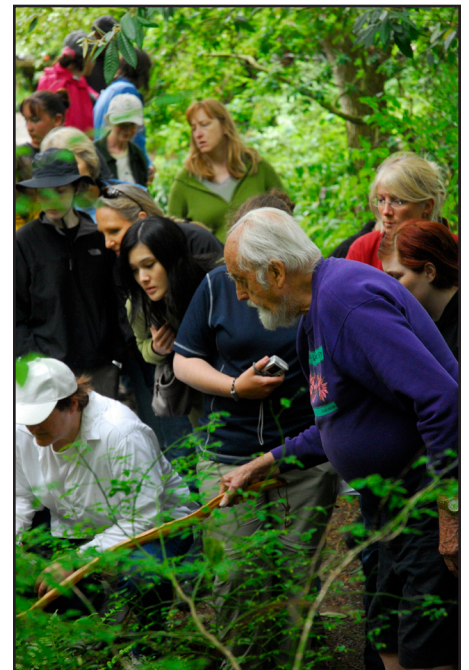
as *Lithocarpus densiflorus* (Hook. & Arn.) Rehder. The species was renamed (in a new genus) *Notholithocarpus densiflorus* (Hook. & Arn.) Manos, Cannon, and S. H. Oh in 2008, because it lacks the "flower cupule" of *Lithocarpus*. (See <http://www.bioone.org/doi/abs/10.3120/0024-9637-55.3.181?journalCode=madr> for the abstract.)

The Kruckebergs' initial plants were supplied by Carl English. One is now the state champion in Washington. In addition to big trees of the type, the garden sports large examples of an extremely beautiful mutant form of the *Notholithocarpus*, identified and named by John Tucker as forma *attenuato-dentatus* because of narrow, elongated, dentate leaves. As Art says, "Mareen, more than anyone else, had the knack of propagating this plant from cuttings." After her death in 2003, Art and the garden staff planted a new *Notholithocarpus densiflorus* forma *attenuato-dentatus* in her memory in a clearing in the garden.

While enjoying the thrills of building an exotic plant collection, Art and Mareen were also avid and forceful advocates of using native plants in the home landscape. Art was a co-founder of the Washington Native Plant Society, among other organizations, and his *Gardening with Native Plants of the Pacific Northwest* (1982; 2nd ed. 1996) has been a resource and inspiration throughout the region. Mareen began a commercial nursery, MsK Rare Plant Nursery, on their property in 1970 and it continues to be an important source of native plants in the community, as well

as of exotics. On a recent visit, the oaks on offer included the only native oak of the Puget Sound basin, *Q. garryana*, plus *Q. garryana* var. *breweri*, *Q. vaccinifolia*, *Q. sadleriana*, *Q. pontica*, *Q. gambelii*, *Q. kelloggii*, *Q. acutissima*, and *Q. macranthera*. The nursery is now operated by the Kruckeberg Botanic Garden Foundation, (<http://kruckeberg.org>), a nonprofit community group dedicated to preserving Art and Mareen's legacy.

Following Mareen's death on New Years day, 2003, Art granted a conservation easement on the property to preserve the collection and to allow the nursery to operate in perpetuity. The holder of the easement is the E.B. Dunn Historic Garden Trust, (<http://dunngardens.org>), which itself operates a beautifully preserved "country place" garden in Seattle designed by the Olmsted firm in 1915 (listed on the National Register of Historic Places). More recently, the City of Shoreline's voters approved funds to purchase the property from Art to preserve it as a public park, subject to the conservation easement and the operation of the nursery, and to Art's continued



Dr. Kruckeberg conducting a tour of the Kruckeberg Botanic Garden. (Roseann Barnhill)

Kruckeberg Botanic Garden

residence there. The City operates it in partnership with the Kruckeberg Botanic Garden Foundation.

Art Kruckeberg continues to welcome guests and customers to his place and encourages them to garden for wildlife and for beauty and interest. Though *Q. virginiana* Mill., for example, may get chopped back in Seattle's more severe winters, Art says, "My philosophy is – Be reckless, take a chance."

Dirk Giseburt



Foliage of *Notholithocarpus densiflorus* forma *attenuato-dentatus* (Vicki Demetre)



Notholithocarpus desiflorus var. *echinoides* (Roseann Barnhill)

Plant Portrait

Quercus sadleriana R. Br. ter. Deer Oak



Quercus sadleriana in the Klamath Mountains (Roseann Barnhill)

A native oak of the Pacific Northwest, USA

This oak native to the Klamath Ranges (Siskiyou Mountains) of southwest Oregon and nearby northwest California is one of the most beautiful of the oaks of shrub habit. It grows as a primarily understory plant on acidic, mostly cool, moist soils, occasionally reaching 3 meters (roughly 10 feet) high. It is evergreen, and possesses wide, glossy leaves reminiscent of chestnut leaves, the apex acuminate, the base rounded, which typically measure 1-7 cm in length by slightly less in width. The leaf margins are toothed. The acorn is prominent, sessile, 1-2 cm wide by 2 cm long, essentially round. Since the plant is rhizomatous, it often forms dense mats. In its appearance, *Q. sadleriana*

resembles *Quercus pontica* K. Koch, Armenian Oak, Pontine Oak, also a shrubby oak which grows in similar habitats south of the Black Sea in Turkey.

Q. sadleriana is a white oak (Section *Quercus*), and probably a relict species. It is hardy to around -20 F (-28C), making it a reliable garden subject in USDA Zone 5. I have been growing it in Boulder, Colorado, at 1800 meters (5500 feet) for the past 30 years, and it has survived lows of -24 F (-32C) twice. In my garden it is a subshrub, only about 15" (37 cm) high.

Q. sadleriana belongs to a very interesting plant community called "montane chaparral," which consists of short (chaparral in Spanish means "short") shrubs from several families: *Fagaceae* (*Quercus*), *Ericaceae* (*Arctostaphylos*, *Rhododendron*, *Vaccinium*), *Rhamnaceae* (*Ceanothus*)." *Arctostaphylos* is particularly richly represented in this plant community, given the readiness with which the members of this genus hybridize.

The montane chaparral occurs widely in the Klamath Mountains, both as an understory beneath conifers and on



Quercus sadleriana R. Br. ter. Deer Oak (Allan Taylor)

In the Spotlight: Robert James Berry from Tiniroto, North Island, New Zealand

Who are the members of the International Oak Society? From what walks – and interests – of life do they come? From Japan to Minnesota, from Devon to Spain, from Holland, Australia and Argentina, we hope to be able to present at least some of them in *Oak News & Notes*. If you know someone whom you would like to see “In the Spotlight” please let us know!

Robert James Berry, born in 1916, has been planting trees since the early 1950's. Today Hackfalls Arboretum counts more than 2700 different plants and trees on 50 ha. This Arboretum is in Tiniroto on the back road between Wairoa and Gisborne, in the Eastland region of the northeast coast of the North Island. Bob thinks of himself as a sheep and cattle farmer who also has trees as a hobby. He has been a member of the IOS since 1996.

While his father was alive, poplars were among the trees that Bob was allowed to plant - the *Populus* collection today

Plant Portrait

open rocky slopes and ridges between 600 and 2300 meters (roughly 2,000 to 7,000 feet). It is a distinctive feature of mountain ecology in SW Oregon.

Allan Taylor



Montane chapparral. Foreground: *Arctostaphylos* sp. Background: *Quercus sadleriana* (Allan Taylor).

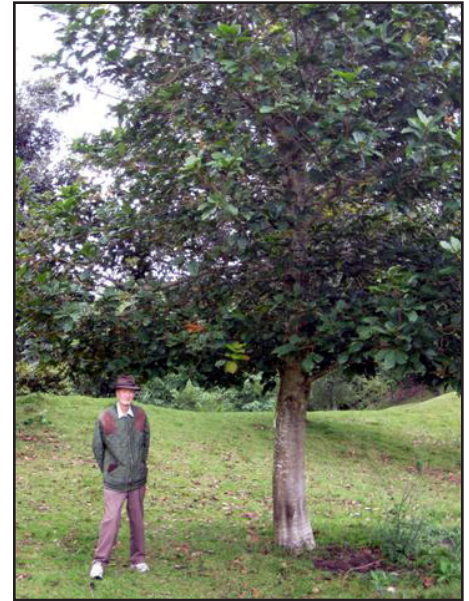
comprises 220 individuals. But early on Bob realised how easily oaks grew in his area and he established contacts with nurseries and botanic gardens around the world for seed and young plants. This would be impossible today: importing living material into New Zealand is no longer permitted.

“There are about 160 different oaks at Hackfalls, 50 of which are Mexican species. A few were bought as trees, but the majority I grew from acorns which I collected personally. All of the Mexican species except one are trees that have been grown here from seed. Oaks grow very well here and I am interested in their great variation and the large number of species in this genus.”

Bob has traveled six times to Mexico, the paradise of the genus *Quercus*. One year Bob and his companions collected 800 acorns, and managed to bring them all back to New Zealand. This was a real accomplishment, because previous acorn lots had been destroyed by the treatments that they were subjected to for phytosanitary reasons. His is the largest collection *ex situ* of Mexican oaks in the Southern Hemisphere.

His favorite oak is *Quercus candicans*. “It has nice foliage and good fall leaf color. It is semi-deciduous here in New Zealand.” When asked what oak tree he would choose to be, if such were possible, his answer is categorical, “I have never thought of such a thing! I don’t even hug trees. My attitude is entirely scientific and intellectual. I leave mysticism to others.”

Although it represents more work, from the beginning Bob has planted his trees with individual protection (a private barricade for each tree), rather than enclosed in large areas with livestock excluded. In this way the trees are well spaced and the land can still be used for grazing.



Robert James Berry (Diane Playle)

In November 2010 Bob was presented with the Ron Flook Award by the New Zealand Arborists' Association in recognition of his outstanding service to the care of trees and the arboriculture industry at large. In 2002 the International Dendrology Society awarded Hackfalls Arboretum a bronze plaque for ‘being a collection of outstanding merit’.

The Hackfalls Arboretum contains the following individuals (the numbers are approximate): *Acer* 160, *Alnus* 80, *Betula* 90, *Camellia* 80, *Eucalyptus* 90, *Hebe* 50, *Ilex* 60, *Magnolia* 70, *Malus* 50, *Populus* 220, *Prunus* 80, *Quercus* 160, *Rhododendron* 400, *Salix* 70, and *Sorbus* 70.

Béatrice Chassé

(Considerable additional information about Robert Berry and Hackfalls Arboretum is available on Wikipedia; google “Hackfalls Arboretum.” While there, check out also “Eastwoodhill Arboretum,” located closeby in Gisborne, NZ, which also has a large oak collection. See also the review of the Hackfalls Catalogue by Allen Coombes, this issue.)



The Hackfalls Catalogue

The 3 CDs that make up this collection (the "Hackfalls Catalogue") document the extensive holdings of Hackfalls Arboretum, Tiniroto, New Zealand with an introduction detailing the history of the arboretum. The first two contain most of the *Fagaceae* (*Lithocarpus* and *Quercus*). Each accession is listed in alphabetical order and most are illustrated, with close-ups of foliage and photographs of the trees *in situ*. The third is a list of the remaining trees and shrubs including *Castanea* and *Castanopsis*. There are fewer illustrations here but with as much detail. For each accession, the accession number is given, as well as full details of where the seed was collected, including grid references, the name of the nursery where a plant was obtained, if purchased, measurements of the trees, and identification notes.

This is one of the most complete and detailed listings of any collection that I have seen published and it is very useful, not only in documenting the collection but for those that are unable to visit, a chance to see the splendour that is Hackfalls. It should also serve as a guide to what other collections could be doing. The profuse photographs make it an invaluable identification guide also. The Hackfalls Catalogue is available at \$30.00 NZ (roughly \$22.00 US), with additional 15% discount from list price. Postage is extra. Touchwood Books, P.O. Box 610, Hastings, 4156, New Zealand.

Having had the pleasure to visit Hackfalls some years ago at the invitation of Bob and Anne I can say that it gives a very good representation of the garden and its plants. I have no criticisms of this publication, even of the names used, because I know that Bob has put as much energy and passion into identifying his plants as he did in collecting and planting them.

Allen Combes



A Threatened Oak Species in West Texas, USA



Close up of foliage of *Q. hinckleyi* (William Backs).

Quercus hinckleyi C. H. Mull. is an evergreen endemic scrub oak species found in one county in West Texas (Presidio County), although it may be found in Mexico as well. It grows in an arid sub-tropical environment on dry limestone and sandstone slopes at approximately 1000-1350 m elevation. It is easily recognizable by its shrub-like thicket growing pattern (maximum height 0.75 m) and grey-green thickened holly-like leaves with pink petioles (see accompanying photographs). *Quercus hinckleyi* was listed as a federal and Texas threatened species in 1998, with a recovery plan published in 1992 (Kennedy and Poole).

There are a number of immediate threats to the species: low number of populations (10) combined with few individuals, wildlife and insect predation, possible hybridization with *Q. pungens* Liebm. and/or *Q. vaseyana* Buckl. and poor regeneration from seed.

Janet Backs is a graduate student in the Ashley Lab at the University of Illinois at Chicago. As part of her dissertation research, she is working on a genetic study of *Q. hinckleyi* using DNA microsatellite analysis to ex-

amine genetic variation and gene flow within and between the sites in West Texas.

In addition to contributing genetic information that can be used in making conservation management decisions, the study results will be applied to an examination of how isolated, small-numbered species are affected by ongoing habitat fragmentation that is, in effect, creating islands of biodiversity.

On a field trip in 2009 samples were collected from two of the ten locations in Texas in which the relict populations of *Q. hinckleyi* are found. Collaborators at Sul Ross University in Alpine, Texas, have also supplied some samples from a third location. Although this final location will require additional sampling, it has been possible to start microsatellite analysis and results are beginning to become available.

Janet would like to ask for help from members of the International Oak Society in getting information on the potential range of *Q. hinckleyi* in other parts of the Chihuahuan Desert. The current conflicts along the border preclude field trips into Mexico, but Janet would like to learn if there are existing herbarium specimens or information on locations



Q. hinckleyi in habitat (William Backs).

A Threatened Oak Species in West Texas, USA



Janet Backs at work in the field (William Backs)

where it has been found there. Janet thanks you in advance for your help.
Janet Rizner Backs

Please send *Q. hinckleyi* information to:

Janet Rizner Backs
University of Illinois at Chicago
Biological Sciences, Ecology and
Evolution Group
SEL 1031 M/C 067
840 West Taylor Street
Chicago, IL 60607

jbacks@uic.edu

References: Kathryn Kennedy and Jackie Poole, Hinckley oak (*Quercus hinckleyi*) Recovery Plan. U.S. Fish and Wildlife Service, Region 2, Albuquerque, NM. 1992.

A paperback copy of this report can also be purchased through [Amazon.com](https://www.amazon.com).



James Richard Pennington (Dick) van Hoey Smith
29 September 1921 - 21 December 2010



Founding Member, International Oak Society
First Recipient, Lifetime Service Award
Inspiration to us all

A Tribute—Dick Van Hoey Smith

Anyone who grows and studies trees, anywhere on Earth, has felt the influence of the grand master of the world-famous Trompenburg Arboretum in Rotterdam. He was one of the founding members of the International Oak Society and the last surviving founding member of the International Dendrology Society. He held the Dutch national reference collections for oaks as well as beeches and conifers. He photographed for many of the finest reference books on trees, introduced several outstanding cultivars of oaks, beeches, and conifers, and was equally renowned for his succulent collection.

Dick was never too busy to lead an inspirational tour of Trompenburg, the

garden he inherited from his father and worked tirelessly as director for more than five decades to preserve, expand and refine into one of the most prestigious plant places on the planet. I was very privileged to be the person to present him with the first IOS Lifetime Service Award at our third conference in 2000 during my term as IOS president. Edie and I visited him and his wonderful wife Riet again in September, 2010, and that was to be the last time. Dick van Hoey Smith passed away on 21 December at his home in the arboretum, with his family at his side.

Farewell, my great friend—
Guy Sternberg

News From the Tour Committee

1. United Kingdom Open Day at Chevithorne Barton, near Tiverton, Devon, England. June 25 and 26.

Host: Michael Heathcoat Amory. Organizer: Shaun Haddock.

Michael Heathcoat Amory is one of the two UK National Collection holders for *Quercus*. The visit to his garden will begin at 11 a.m. There will be a guided tour of the collection and a buffet lunch for participants. The collection is described in *The Oaks of Chevithorne Barton*. For those that wish to prolong their visit to this superb garden, it will be open for self-guided tours on June 26.

Please register your interest in this tour or ask questions about it to Shaun Haddock at shaun.haddock@orange.fr or by fax +33 (0)5 63 64 44 42. Persons who respond will receive directions to the garden and a list of local accommodations.

2. Belgian Oak Open Day at Wespelaar Arboretum and the private Herkenrode garden, Haacht-Wespelaar, Belgium. September 4. Host: Philippe de Spoelberch.. Organizer: Charles Snyers.

The Wespelaar Arboretum is part of the estate of Philippe de Spoelberch. The c. 19 hectares of the arboretum harbor a collection of over 4,000 specimen trees and shrubs. The private Herkenrode Garden is adjacent to the arboretum.

If time allows, visit to the oak collection of the National Botanical Garden of Belgium, Meise, Belgium, just north of Bruxelles. This rich garden, arboretum, and library is located on the grounds of Bouchout Castle, and is one of the largest botanical gardens in the world. Its collection includes 18,000 plant species, about 6% of all known plant species in the world. The collection is evenly divided between greenhouses and outside plantings.

Enquiries welcome at charles.snyers@gmail.com.

3. Northwest Greece. September 26 to October 1. Organizer: Dirk Benoit.

Itinerary, daily schedules, and fee schedule to be announced later. Watch the IOS website. Enquiries welcome at dirk.benoit@telenet.be.

4. Oak Open Days, Boston and Cape Cod, Massachusetts, USA. September 28 to October 2.

Hosts and organizers: Tim Boland and Tom Clark of the Polly Hill Arboretum.

All day visit and lunch at Arnold Arboretum at Jamaica Plain. Tour includes their expansive collection of oaks from all temperate regions of the Earth, curatorial facilities, and propagation facilities. Visit to the Mount Auburn Cemetery. This national landmark curates the North American Plant Collections Consortium for *Quercus*. The last segment of the trip includes a visit to the Island of Martha's Vineyard and the Polly Hill Arboretum. While on the island, natural oak habitats will be explored, including oak savanna and the sand plain grasslands.

Itinerary

September 28. Afternoon arrival at Logan Airport, Boston. Dinner in evening in Brookline, MA, overnight in Boston.

September 29. All day visit to Arnold Arboretum, Jamaica Plain. Overnight in Boston.

September 30. Morning visit to Mount Auburn Cemetery. At 2 p.m. depart for Martha's Vineyard, four hours' ride including ferry. Evening dinner at Oak Bluffs, overnight in bed and breakfast on the island.

October 1. Visit Polly Hill Arboretum. Late morning depart for Deep Bottom Reservation; lunch; then proceed to Manuel F. Correlus State Forest. Dinner in evening at Far Barn, Polly Hill Arboretum.

October 2. Visitors dropped off in a.m. at Woods Hole, MA, for return by bus to Logan Airport.

Fee schedule to be announced later. Enquiries welcome at tim@pollyhillarboretum.org.



Oak Open Days, Kew Royal Botanic Gardens, England, July 29, 2010



fig. 1: Tony Kirkham with *Quercus crassifolia* (Eike Jablonski)

SHAUN HADDOCK invited the IOS membership on July 19, 2010 to an Oak Open Day at the Royal Botanic Gardens, Kew, near London. The aim was to focus on the Mexican oak species in their vast oak collection.

Seventeen oak enthusiasts from the UK, France, Belgium, Luxembourg, Germany, the Netherlands, and Finland, met at the Main Gate. Summer heat and nearly 12 weeks without real rain had changed the green lawns and other plantings at Kew into a prairie-like landscape. It was hard to imagine that we were in rainy England - it looked far more like California or the steppes of Inner Anatolia to us.

The group was welcomed by SHAUN and TONY KIRKHAM, head of the Living Collections Department. Tony is a well-known author and an authority on woody plants in general.



fig. 2: *Quercus insignis*, survivor at Kew, with admirers (Eike Jablonski)

We gathered at the staff offices, where we met TONY HALL, an expert in alpine plants and an honorary research fellow, and RAY TOWNSEND, the Arboretum Manager, who accompanied us throughout the remainder of the day.

Over tea and coffee we had the opportunity to listen to Tony's very interesting presentation about a somewhat new pest in England - the oak processionary moth (*Thaumetopoea processionea* L.). Beginning about five years ago this moth has caused major problems in oak wood management, especially in the surroundings of Kew and nearby parks and gardens. It was clear soon after the discussion started that this moth has been quite well known for years in Continental Europe. Their original South European range is expanding northward, possibly or partly as a result of climate change. Here in England the moth is fairly new, known since only 2006, and horticulturalists, environmentalists, and foresters are desperately searching for an adequate control. As they mature, the caterpillars form a nest-like bowl, where they are well protected from insecticides delivered as spray. The major problem with *Thaumetopoea* is not the defoliation of the oaks, but rather the more or less extremely allergic reactions which humans suffer when in the vicinity of this caterpillar. The backs of older caterpillars are covered with up to 63,000 pointed defensive bristles containing a toxin similar to that found in the bristles of nettles. The hairs break off readily, become airborne and can cause skin irritation and asthma.

TONY informed us that in the Kew collections, oaks of the Sections *Cerris* and *Robur* are vulnerable. It is found particularly frequently on *Quercus*

cerris L., and with somewhat lesser rates of infection on *Q. castaneifolia* C.A. Meyl, *Q. robur* L., *Q. petraea* (Matt.) Liebl., *Q. x turneri* Willd., and *Q. ilex* L. He described several more or less effective--but costly--methods used in oak processionary moth control. The destruction of 1000 nests cost up to £65,000 (equivalent to \$105,000) in 2009 at Kew alone.

After the presentation and discussion, the group went directly to the collections. Here TONY and his colleagues described for us the maintenance of the living collection. An effective weed-control with a minimum of herbicides has been developed by Ray, who is called "Round-Up Ray" at Kew. He has developed a schedule for spraying at the end of winter, which at Kew is the end of February. A concentrate of only 10 ml per liter of a Glyphosate-containing herbicide is sprayed on weeds, and this has proved to be a very effective control while reducing the need for herbicides.

We were all eager, of course, to see the oaks, to which we now turned. One of the first oaks we encountered was a



fig. 3: Shaun Haddock (left), Tony Kirham (right), *Quercus variabilis* (centre), planted 1909 (Eike Jablonski)

Oak Open Days, Kew Royal Botanic Gardens, England, July 29, 2010

surprise - a giant *Quercus crassifolia* (fig. 1) from Mexico, planted in 1934, and the British Champion for that species. We all gathered easily under the canopy of this majestic and rare oak. Some of us had seen *Q. crassifolia* in Mexico in 2009, but this specimen is possibly the largest in cultivation outside of Mexico. Another Mexican species which attracted our attention was *Quercus insignis* M. Martens & Galeotti, the oak species with the largest acorns in the whole genus. *Q. insignis* has been quite hardy at Kew, showing no significant frost damage from temperatures down to - 7 °C (18 °F). In recent colder years it has defoliated but nevertheless survived even though unprotected (fig. 2; see remarks about this species, and photos, in Winter 2010 number of *OAK NEWS AND NOTES*).

The oak collection at Kew is amazing: it includes more than 1400 oaks from more than 300 taxa. Many are unique in Britain or Europe, and many of them are original introductions and thus of enormous scientific and horticultural value. A huge *Q. variabilis* Blume was propagated in 1909 from seed sent from the Arnold Arboretum after being collected in habitat by ERNEST WILSON in China (fig. 3). Another surprise was the rare and only endemic African oak species, *Q. afares* Pomel, which was planted here as early as 1869. Still another giant turned out to be a familiar species: *Quercus castaneifolia* C. A. Mey, planted in 1939 and very much like those growing wild in the forests of northern Iran. It is hard to believe that this specimen is just 70 years old (fig. 4).

Another noteworthy specimen was a *Quercus rubra* L. harboring the yellow mistletoe, *Loranthus europaeus* Jacq. This is a rare semi-parasitic plant simi-



fig. 4: *Quercus castaneifolia*, 70 years old (Eike Jablonski)

lar to mistletoe but with yellow fruit; it grows mainly on oaks and chestnuts. It is believed to be the one and only *Loranthus* specimen growing in the British Isles.

In addition to oaks, we saw a great many interesting trees, shrubs, perennials and...weeds., including *Cathaya argyrophylla* Chung et Kuang, a rare conifer from Szechwan discovered in 1955 and extremely rare in collections, and the shrubby West-Chinese *Sambucus adnata* Wall. Ex DC., with its typically winged rachis.

Although we had spent the whole day in the midst of this tremendous collection of trees, we nevertheless finished our tour with a touch of regret...we had really only scratched the surface!

Our sincere thanks to SHAUN, who facilitated the gathering, but most especially to TONY KIRKHAM for his warm welcome and hosting us, together with TONY HALL and RAY TOWNSEND for sharing their ideas and immense knowledge, not only about oaks.

Eike Jablonski



From the Editor

Recent Activities of the IOS Board

The Board has been busy, acting both as a body and as individual members. One significant discussion during the last period was Special Service Awards. Discussed were the nature of the award, types of awards, criteria for making awards, and the kind of memento which should be made along with the award. In the past this has been some kind of oak-connected artifact, as a piece of wood from a notable oak. The next such award(s) will be made at the 7th Triennial Conference, to be held in France in 2012. See the description below regarding Special Service Awards, which distills the discussions.

Also discussed was election of the new board, which will be installed at the 7th Conference in France. Several names have already been proposed, additional names are solicited from the membership, see below.

Rudy Light, Director of Membership, has been working hard preparing the new Membership Directory, which will soon be ready for distribution. This will include names and addresses of members, as well as important additional information about the IOS, including names and addresses of board members as well as the members of various Society committees.

Nominations for the IOS Board

Nominations are invited for members of the IOS board. Although several of the current members intend to stand for reelection, there will be vacancies. (Please obtain the consent of the person you intend to nominate before submitting the nomination.) Self nomination is also possible. Send nominations to James Hitz, IOS Secretary, at jehitz@frontier.com.

Persons nominated should, if elected, expect to perform a variety of tasks. There is no paid staff, so all functions necessary for running the IOS are performed by members of the Board and other volunteers.

From the Editor

Thanks for your suggestions and please support the election of the Board by voting.

Nominations for IOS Service Awards Committed to Oaks

One of the traditions of the International Oak Society is to give awards to individuals who have, in one way or another, devoted an important part of their lives to advancing the cause of oaks and/or the goals of the IOS. These awards are presented at a triennial conference, the next of which will be in France in 2012.

It is obviously not obligatory that either of the awards be given at all, and certainly they must be given in a way such that their significance is not diminished. Having already received an IOS service award does not make one ineligible for a subsequent award if it is merited. Candidates may be nominated for service to the IOS as an organisation or for contributing to the advancement of IOS goals. These goals are listed in the membership directory and can be found also on the website (on the home page, upper right-hand corner, "About us").

If you know a fellow IOS member whom you would like to nominate to receive such an award, please let us know by contacting James Hitz, IOS Secretary, (jehitz@frontier.com) with a short paragraph or two explaining why the person is deserving of an award.

There are two categories of awards:

- 1) Lifetime Service Award (LTSA): to receive this award the person must be retired from his/her formal career and have devoted significant long-term efforts to the genus *Quercus* and/or the advancement of the goals of the IOS. An honorary life membership is included.
- 2) Special Service Award (SSA): to receive this award the person need not be retired but must have devoted significant efforts to the genus *Quercus* and/or the advancement of the goals of the IOS.

Website Updates and Revisions

Remodeling of the IOS website is ongoing. Suggestions are welcome. Contact Charles Snyers at charles.snyers@gmail.com. Thanks for your input.

Ryan Russell is working on the "Planting Oaks" section of the website, and he requests suggestions and nominations. See his appeal for input from members immediately below.

A Call for Member Help

In an effort to make the IOS website more useful and informative, I would like to ask for some member participation. I have been updating the Planting Oaks section with species information and photos, but there are many species and hybrids that I do not have access to or extensive knowledge of. The primary areas of need are the Mexican, Asian and European species and their hybrids. I am asking for photos (preferably digital) and any other pertinent information including habitat, range, hardiness, author, etc. Of course, this information must be accurate as this information will be used for the IOS website. The information will be validated and uploaded in the Planting Oaks section. Please send information to russelly@missouri.edu or tjrtr@hotmail.com.

Thank you for helping to make the IOS website more informative and usable for all of us.

Ryan Russell

A few reference works on oaks in English.

Several works are in existence, and most are available for purchase or can be downloaded from a website. Some are more useful than others, of course, depending on the interests and needs of the reader.

The best, most thorough, most up-to-date reference on oaks is *An Illustrated Guide to Oaks*, by Antoine le Hardy de Beaulieu and Thierry Lamant. The book was originally published in French (*Guide illustré des chênes*, Editions du 8e Jour, Paris, 2006). The book is in

two volumes, and expensive, but every serious oak enthusiast should own this reference, for it covers all the "world of oaks and oaks of the world"—450 species, varieties, and hybrids, locations and distributions, physical descriptions, ecological and ethnological information—accompanied by 4000 splendid color photographs. The first volume treats the oaks of the Eastern Hemisphere, the second, those of the Western Hemisphere. The English translation is in preparation, and should be available in 2011; the French edition is available now. A bit of friendly advice: run—don't walk—to your favorite bookstore and order or buy the edition of your choice! You won't be sorry you did. \$\$\$

For the oaks of North America, the best book for the layman is *Oaks of North America*, by Howard Miller and Samuel Lamb (Naturegraph Publishers, Happy Camp California, 1985.) The book covers all of the oak species of the United States and Canada, and also lists a key to 112 Mexican oaks as well, therefore living up to the title. Given in most cases are physical descriptions, ranges, scientific and common names, and hybrids. Almost every oak treated is also illustrated by photographs (full tree, leaf, acorn, bark, and twig detail.) Scientific names are not always up to date, but otherwise the guide is very useable, especially for field use. It can be purchased on Amazon for very little money, and should be in every oak enthusiast's library.

The best regional treatment for North America is *The Oaks of California*, by Bruce M. Pavlik *et al.* (Cachura Press, Los Olivos, California, 1993). This richly illustrated volume covers all of the 20 or so species of oak native to California and nearby regions. It gives the usual information (physical descriptions, ranges, information on the different biomes and ecosystems of California), with a number of stunning photographs of the oaks and their habitats. The book is very reasonably priced on Amazon.

From the Editor

For a general treatment of the oak species of Asia, the best available guide, apart from the Illustrated Guide mentioned at the beginning, is *Oaks of Asia*, by Yuriy L. Menitskiy. Originally published in Russian, this work became available to readers of English from Science Publishers in 2005. Given are the systematics, geographic distributions, ecology, phytocenology, and evolutionary history of all of the presently known oaks of Asia, from the Caucasus to the Philippines. The book lacks photographs, but has good line drawings and maps. Weaknesses are that the classifications are not always those presently accepted, and, of course, the work was composed before the findings of modern genetic research were available. The book is available on Amazon for \$\$\$.

Treating all of the oaks of the world from the perspective of a scientifically literate person is Glenn Keator's *The Life of an Oak: an Intimate Portrait* (Imago Publishing, Ltd., Singapore, 1998). Treating not only classification and oak evolution, Keator also considers the ecology of oaks, as well as the oak as an ecosystem in itself, including mycorrhizae, insects (galls), and epiphytes and lichens hosted by oaks. Also described are the architecture of oaks, the many varieties of their leaves which makes identification so difficult, and their life cycle, from acorn to fallen titan. Illustrations include color photographs and maps, as well as excellent drawings by Susan Bazell.

The Life of an Oak is available in paperback on Amazon for very little, and every oak enthusiast should own this informative and delightful book.

An ethnobotany of oaks, *Oak, the Frame of Civilization*, by William Bryant Logan (W. W. Norton and Company, New York, 2006) gives an account of the partnership between oaks and human beings through the last several thousand years. Not only oaks as natural organisms and members of forest communities, but also oaks as a resource

for people: fuel, building material, food (acorns), even ink. It contains everything you ever wanted to know about how people use and have used oaks, including such recondite details as how to make different joints in carpentry using oak timbers. The language of the book is elegant and even poetic at times, a book-length article in "New Yorker" style about oaks and human beings. The book is available on Amazon in paperback for almost nothing.

The Natural History of the Oak Tree: an Intricate Visual Exploration of the Oaks and its Environment, by Richard Lewington and David Streeter (Dorling Kindersley, London and New York, 1993). This British publication treats the ecology, physiology, and life cycle of oaks. Well illustrated with drawings in full color. This book is available in hard cover only, \$\$.

Two additional extremely important publications should be known to members of the International Oak Society. These are the *Red List of Oaks and the Global Survey of Ex situ Oak Collections*. (*Ex situ* means "outside of place," i.e. not in the native wild habitat.) Both of these reports were prepared by the Botanic Gardens Conservation International (BGCI), the former in 2007, the latter in 2009. Both documents can be downloaded from the website of the BGCI (www.bgci.org).

For the *Red List of Oaks*, select "Resource Centre" in the left hand column on the home page of the BGCI. When the resource centre page comes up, click on "our publications," which is below the upper left picture. When the publications page comes up, click on "Status Reports and Red Lists," then scroll down to the *Red List of Oaks* and download it. The quickest way to get to the *Global Survey of Ex situ Oak Collections* is to type this title into the search window, which will take you to an area of the BGCI website which I was unable to locate alone. Scroll down 2/3 page and click on "download."

In the *Red List*, 216 *taxa* for which good information was available were surveyed as to the viability of their natural populations. Of these, half (109 *taxa*; 29 critically endangered) were judged to be in danger of extinction if the threats that they face are not addressed. Strategies recommended for preservation are protection in *ex situ* collections (botanical gardens and preserves) and habitat protection and restoration, with involvement of local people where the species are native. Endangered and critically endangered species are identified as such in the list of "globally threatened oaks" on pages 9-27. Not all of the oaks in the list are threatened, despite the title.

The Global Survey of Ex situ Oak Collections is mainly a policy paper for accomplishing the goals articulated in the Red List of Oaks. Annexes 1, 2, and 3, pages 11-13 will be of most interest to members of the IOS. Annex 1 tabulates "very threatened oaks," Annex 2 is a priority list for new *ex situ* collections, and Annex 3 gives a ranked list of endangered oaks in collections in botanical gardens around the world.

Some interesting web sites about oaks.

<http://oaks.of.the.world.free.fr>

This is a huge file—really a reference book-- with an enormous amount of information on botany, oak taxonomy, species information as well as information about the range of occurrence, history of the particular taxon, color photographs and/or line drawings of twigs, leaves, and fruits, and a list of vernacular names in a number of languages when these are known. The species information is arranged in compact charts, all with the same internal organization, so that you can quickly find and extract the information you want, whether for one individual or for several if the goal is comparison. For people who have access to a computer, this resource will be immensely useful.

From the Editor

Plants 4 a New Generation: oaks
Plants 4 a New Generation: lithocarpus
 Google these titles, then scroll down for a compendium of descriptions of a number of oak and *lithocarpus* species, with color photographs of some.

<http://discoverlife.html>

You can also just Google discoverlife.org. This website is a goldmine of information and pictures of a broad array of biological subjects. To research oaks in particular, click on *Plantae* in the search window on the homepage. Then click on *Dicotyledoneae* in the IDnatureguides search window. After reaching that page, check *Fagaceae* under Family and then Search. Articles on the members of this family will then appear in a list in the left-hand column. Scroll down to the entries for *Quercus* (or other oak relatives), then find images and other information on the species page you have located.

www.bluebellnursery.com

This is a family-owned nursery in the UK. Visit their website, and follow links to fantastic color photos of many trees and shrubs, including oaks, of course. Some subjects have an associated video, with music! A pleasant place to visit for an hour or more...

<http://hackfalls.wordpress.com>

This is a site maintained by the Hackfalls Arboretum (see above). Given are color photographs of numerous trees in the arboretum, including many oaks, especially Mexican species

Happy new year all; may this year be filled with the joy of studying and cultivating oaks!

Allan R. Taylor, Editor,
Oak News and Notes



In Memoriam

Two persons well known to members of the IOS died since the last newsletter. These are Dr. George Ware, of the Morton Arboretum in Chicago, Illinois, and James Richard Pennington van Hoey Smith, of the Trompenburg Arboretum in Rotterdam, Holland.

George Ware passed away July 4, 2010, at the age of 86. A forest ecologist by training, his professional career was devoted to the selection, development, and care of the urban forest, "tough trees for tough places" as he put it. His career was in teaching until 1968, when he joined the staff of the Morton Arboretum as Dendrologist; he became Director of Research ten years later, a post he held until his death. He retired in 1995, but continued to work at the arboretum until a year before his death.

During his long service at the Morton Arboretum he led numerous trips to China and the former Soviet Union, looking for new species and cultivars of trees for American cities, particularly those of the Midwest and the Great Plains. The recipient of numerous awards and awards for his work, he was the keynote speaker at the first IOS conference, held in 1994 at the Morton Arboretum.

"Dick" van Hoey Smith came from an Anglo-Dutch family long known for its interest in trees. The Trompenburg Arboretum was founded by his father, and lovingly cared for by his son when his father died. Dick died on December 21, 2010, at the age of 89. See the tribute to him by his long-time friend and IOS board member, Guy Sternberg, on page 6.



IOS Points of Contact

Membership Renewals or Applications:

William J. Hess, Treasurer
 International Oak Society
 299 Pond Road
 Monterey, TN 38574 USA
 Tel: 931-839-6518
 E-mail: wjbahess@frontiernet.net

Submittals for the Newsletter:

Allan Taylor, Chair
 Newsletter Editorial Committee
 787 17th Street
 Boulder, CO 80302 USA
 Tel: 303-442-5662
 E-mail: tayloralro@comcast.net

Submittals for the Journal:

Guy Sternberg
 Starhill Forest Arboretum
 12000 Boy Scout Trail
 Petersburg, IL 62675 USA
 Tel: 217-632-3685
 E-mail: Guy@StarhillForest.com

IOS Secretary:

James Hitz
 71 N 500 W
 Valparaiso, IN 46385 USA
 Tel: 219-462-0025
 E-mail: jehitz@frontier.com

Oak News and Notes

The Newsletter of the International Oak Society

787 17th Street
 Boulder, CO 80302 USA

President: Béatrice Chassé Vice-President: Charles Snyers d'Attenhoven
 Treasurer: William Hess Newsletter Editor: Allan Taylor
 Journal Editor: Guy Sternberg