

International Oaks

The Journal of the International Oak Society

...old-growth Quercus faginea, the ecological significance of delayed fertilization, a tale of two oaks, the oaks of New York City...



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Photos. Cover: Roderick Cameron (Central Park, New York City, USA). Page 7: The Morton Arboretum; Béatrice Chassé (Quercus acerifolia). Page 8: Béatrice Chassé. Page 9: Ryan Russell. Pages 10-11: Dirk Giseburt. Page 13: Roderick Cameron (Q. coccinea, Brooklyn Botanic Garden, NYC, USA).

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Table of Contents

—/ 07 /— In Memoriam Bill Hess

—/ 10 /— Foreword Dirk Giseburt

—/ 13 /— Introduction Béatrice Chassé

—/ 15 /—

A Tale of Two Lonely Oaks: Quercus acerifolia and Q. humboldtii Yingtong "Amanda" Wu

—/ 27 /—

Revisiting the Taxonomic and Nomenclatural Problems of the Quercus sinuata Walter Complex Ronald Lance

—/ 45 /—

Ouercus ×libanerris 'Tromper': An Error Disinterred Gert Fortgens and Roderick Cameron

—/ 51 /—

Some Eastern European Oak Hybrids and Their Names Patrick Vereecke

—/ 63 /—

A Delayed Fertilization Process in Quercus acutissima and Its Ecological Significance Min Deng, Cheng-Cheng Shi, Kai-Pin Yao, and Qian-Sheng Li

—/ 73 /—

Old-Growth Quercus faginea in Portugal Hugo Ribeiro, João Tomás, João Pires, Sofia Quaresma, João Soutinho, and Carlos Vila-Viçosa

—/ 95 /—

International Dendrology Society in Southwestern France and Northern Spain September 29-October 4, 2021 Stephen Wood

—/ 117 /—

Arboretum de Chocha, France Michel Duhart

—/ 127 /—

The Oaks of New York City Roderick Cameron

—/ 159 /—

Developing the Oak Collection at the Jardim Botânico da Universidade do Porto, Portugal Carlos Vila-Viçosa, Teresa Matos Fernandes, João Moreira, João Junqueira, Joana Tinoco, Iuri Frias, and Paulo Farinha Marques

—/ 173 /—

Jean-Louis Hélardot: a Passion for Understanding Oaks
Béatrice Chassé

—/ 186 /—

International Oak Society, Sponsors, Institutional Members and Supporting Members

—/ 187 /—

Index of Scientific Plant Names



Above and following page: presumed Quercus wislizeni hybrid.



FOREWORD

The Joy of Small Things (in Oaks)

What's that?

As Foreword to this volume, may I tell a personal story? And also tell something about why I enjoy *International Oaks?*

My late mother used to say the question "What's that?" was my insistent mode of conversation when I was a very small talking child. My little brain was a noun sponge. Something tickled the neurons. Something was rewarding about nominalizing the physical universe. Maybe, once praised by my parents for my curiosity, nouns were also a ticket to another, better reward.

Fast forward to early middle age, when, having put a few courses of college botany under my belt – and what a vocabulary builder that was – I stumbled into the world of oaks. Oaks were not part of my upbringing. We lived in the central Puget Sound basin in the US Pacific Northwest, within the range of *Quercus garryana* broadly speaking, but the stretch of land north of Seattle where I grew up was an oak-free zone.

It was a slow introduction at first. My wife and I bought a house in 1996 with a fairly nice garden space, and I bought a Q. phillyreoides from a mail-order nursery. What a name! And then I bought the nearly natives Q. sadleriana and Q. vacciniifolia from southern Oregon. And then *Q. pontica* and *Q douglasii* and a seedling labeled "Quercus" but without specific epithet or common name. I puzzled to know the missing half of the binomial.

My quest to unlock this mystery led me eventually to join the International Oak Society in 2009. I was able to purchase the entire back-issue library of *International Oaks*, which was still available at the time. As readers of this Journal know, each issue marks some naming events, such as the publication of new species, the correction of old taxonomic confusions, the registration of cultivars. Also exciting is the naming of relationships among *Quercus* entities. I am thinking of the vivid summary Béatrice Chassé contributed to International Oaks No. 29 (2018)1 of "An updated infrageneric classification of the oaks: review of previous taxonomic schemes and synthesis of evolutionary patterns" (Denk et al. 2017). It's a joy for this amateur to witness our professional friends' energetic wrestling and

reimagining, as they pursue ways to pin down a structure of relationships in the realm of oaks.

Another joy in reading *International Oaks* is following the work of our friends in spotting and theorizing about the processes and results of interactions among *Quercus* entities – the always stimulating discussion of hybrids, introgression, admixture, and reticulation, to which one can add the occasional reference to horizontal gene transfer, and their potential contributions to evolution and ecological change.

I can't wait to read of isolation of horizontal gene transfer processes among oaks. I sense that work is being done. If I missed any reports, someone please let me know!

Which brings me to the photograph on the prior page and my question, "What's that?" One gift to me in the Denk et al. (2017)² paper is the figure, reproduced by Chassé, that identifies diagnostic characters of *Quercus* sections within the phylogenetic relationships the authors propose, with the note that "each section can be diagnosed by unique, unambiguous character suites." And here in the photo we have the one character identified by Denk et al. (2017) that section *Lobatae* shares with no other: the "flanged pistillate perianth" – namely, that thick rim at the base of the remains of the perianth at the apex of the nut. By Jove, there it is, a Red Oak.

Can one dig deeper? From location and context (this plant is on Palomar Mountain, San Diego County, California, at about 1,450 m.a.s.l.), one might presume that the plant is a *Q. wislizeni* at heart, though certainly not a textbook *Q. wislizeni*. It also lacks the diagnostic characteristics of its sympatriots, *Q. kelloggii* and *Q. agrifolia* (i.e., pronounced lobes in the margins and tufts of trichomes in the abaxial axils of secondary veins, respectively). But what section *Lobatae* species has been described as bearing both fruits with hairy surfaces and (sub)evergreen leaves with a blue adaxial waxy bloom and persistent abaxial indumentum? Who knows? Not me. Regardless, what a spectrum of shades of green! Mint in the base of the cupule scales, dark in the adaxial leaf tissue, medium in the abaxial, light in the immature nut surface, and the light green repeated, perhaps with more yellow, in the main leaf veins *and* the thick margin of the leaf blades. With blue and tan accents. One can't complain if this plant is unique and can't be named.

Discussing this problem with Roderick Cameron once, he reminded me of T.S. Eliot's impatience in *The Love Song of J. Alfred Prufrock*:

Oh, do not ask, "What is it?"

Let us go and make our visit.

Well, let's do both. I hope in this issue of *International Oaks* you will find both knowledge and feeling as, sight yet unseen, I know I will.

Dirk Giseburt

Treasurer

^{2.} Denk, T., G.W. Grimm, P.S. Manos, M. Deng, and A.L. Hipp. 2017. An updated infrageneric classification of the oaks: review of previous taxonomic schemes and synthesis of evolutionary patterns. In *Oaks Physiological Ecology. Exploring the Functional Diversity of Genus Quercus L.* Cham, Switzerland: Springer International Publishing AG.