



FOREWORD

The Color of Experience

As we go through life, we pick up phrases from songs, from poems, from books, from friends. They lodge in a brain cell or two, and then one day they attach themselves to a new, unrelated experience, giving the new experience some of its emotional color. This has happened to me in my life with oaks: when anticipating, savoring, remembering my trips to visit the oaks of Palomar Mountain in California, the lilting, iambic phrase “in all my holy mountain” is often gliding about in my brain.

In April 2005, when I was beginning my *Quercus* education, I was at a business conference in San Diego and I could not bear another day of it. I thought, can I get out of here and find some oaks? On-the-spot Web research suggested Palomar Mountain State Park in the northern part of San Diego County. I rented a car and escaped to the mountains.

My prior exposure to California oaks was close to zero. Encountering the big *Q. chrysolepis* at Palomar Mountain that day induced a kind of giddy shock. Their bulk and reach and attitude were outrageous! And the acorns! In April that year the ground was dense with seeds, some already germinating. A foreign, unbelievable scene for me.

Fortunately San Diego draws me back for recurring conferences, and I relish each opportunity to get back to Palomar. The approach by car itself is thrilling. You climb the very steep South Grade Road, curving switchback after switchback with *Q. agrifolia* overhanging. You catch a glimpse of *Q. engelmannii*'s blue, then the distinct shine off the leaves of *Q. chrysolepis*, and suddenly you're at the top. Following the ridge left or right, you stop and look across burned-over *Q. wislizeni* chaparral or mixed oak woodlands to the hazy Pacific shore. Isn't it marvelous that a Mexico-clade section *Quercus* renegade like *Q. engelmannii* made it to California to peek at the ocean!

On this long *Quercus* journey that started for me in 2005, I've learned much from friends and scholars in the IOS. Your insights made Palomar, for me, rich beyond exhaustion. I have come to recognize, as neighbors to the muscular, almost overwhelming *Q. chrysolepis*, dainty examples of the distinct, but now non-valid taxon, *Q. chrysolepis* var. *nana* – here, at least, they stand apart in meadows like stubby flames, erect, dense shrubs, 3 m tall, some with nice pink new growth in summer.

In the Park's Doane Valley, at between 1,400 and 1,450 m, to my eye it appears there

are virtually no examples of *Q. wislizeni* without some hybrid element and, at the same time, no clear-cut examples of *Q. ×morehus*, the hybrid with *Q. kelloggii*. Instead, I see what seems to be an introgressed hybrid swarm of shrubby *Q. wislizeni* with *Q. agrifolia* and *Q. kelloggii* influences showing a variety of leaf morphologies. Year by year I check in on them as my friends. Fifty meters higher, still in the Park, you find some clearly recognizable *Q. wislizeni* as well as a number of charming, young arborescent variations on *Q. ×morehus* and *Q. ×ganderi* (*Q. agrifolia* × *kelloggii*).



Photos 1/ In the Doane Valley, the *Q. wislizeni* showing signs of hybridization with *Q. agrifolia* and *Q. kelloggii* abound: (a) adaxially waxy; (b) long petioles, entire margins; (c) semi-evergreen, flat leaves with no abaxial axillary tufts; (d) golden abaxial trichomes; (e) almost orbicular, undulate margins; (f) rounded apex and short teeth.

I read that *palomar* in Spanish equates to “pigeon roost” or “dovecote”, and indeed the Mountain was named for the very numerous band-tailed pigeons that live there. One Halloween, October 31, 2016, in persistent light rain, I walked beneath a group of tall, erect *Q. agrifolia* var. *oxyadenia* in the Doane Valley where a raucous, excited band of pigeons was high in the canopy, sending a hail of acorns down on me and the wet leaf litter too.

My latest forays have been 3 km northwest of the Doane Valley Natural Preserve off the road to Palomar Mountain Observatory, at 1,600 to 1,650 m. On a gentle slope of mixed woodland and meadows, where *Q. agrifolia* is absent, grow quite a number of *Q. ×morehus* of diverse ages: grand, robust trees taking up space as well as slender specimens in shaded spots. This community near the top of one of Palomar’s ridge lines is an exception to Carl Wolf’s observation that *Q. ×morehus* “is rarely found except as lone trees.”¹ It would be interesting to know if F1 individuals here have reproduced among themselves without backcrossing.

1. Wolf, C.B. 1938. California Plant Notes II. *Occasional Papers, Rancho Santa Ana Botanic Garden* 1(2): 44-52.

I am not alone in the pleasures of exploring Palomar's oaks. In 1941, Cornelius Muller filed record collections of *Q. wislizeni* var. *wislizeni* from the Doane Valley and *Q. ×morehus* from the same area near the Observatory I have been visiting. Volume 22 of *International Oaks* includes a delightful portrait by Joseph Wasyl² of his visits with friends, including Guy Sternberg, to Palomar and what he dubbed the "Uncle Oak", a *Q. chrysolepis* then the largest oak in San Diego County. This tree, also known, at least to Park staff, as the "Joaquín Murieta Oak",³ made an impression on me, too, in 2005, but as Wasyl related, it is no longer alive, having suffered damage by fire and other incidents.

And Palomar attracts scholars, too. Ortego et al.⁴ included samples from four stands of *Q. chrysolepis* on Palomar Mountain and found that each stand included admixture from what they identified as the southern California, Sierra Nevada, and North Coastal genetic clusters of that species. Hauser et al.⁵ and Keuter and Manos⁶ included three Palomar *Q. wislizeni* specimens in their studies of the California Red Oaks and found them to be genetically distinct from their Sierra Nevada and northern California samples. Al Keuter joined me for a couple of fun days' exploration on Palomar and also Volcan Mountain in 2019. He did a leaf-only morphological analysis of one shrubby *Q. wislizeni* from the burned-over south slope of Palomar, which intriguingly produced, in PCA analysis, the closest match to *Q. parvula* var. *parvula* amongst all the other samples in his library.

It bears remembering that our modern visits to Palomar, for knowledge or play, follow thousands of years of sustaining acorn harvests by the indigenous peoples of the region.

"In all my holy mountain" comes from an ancient poem, a dream of peace: "They shall not hurt nor destroy/In all my holy mountain". These days, it is indeed painful to face the terrible failure of this dream. Palomar has not escaped destructive forces, with fierce, human-origin fires and now some evidence of thinning canopies of *Q. agrifolia* and *Q. chrysolepis*. I worry about the health of the oak communities on the upper slopes of Palomar's ridge lines. Chuck Cannon spoke powerfully to my worry when, at the 10th IOS Conference in Las Cruces (New Mexico, 2022), he called for conservation not just of *Quercus* species but of their entire communities.

With these mixed feelings of concern, belonging, engagement, and joy, I wish you all a stimulating time with this volume of *International Oaks*.

Dirk Giseburt
Treasurer



2. Wasyl, J. 2011. Uncle Oak: the Giant of Palomar Mountain. *International Oaks* 22: 100-103.

3. Joaquín Murieta was a well-known figure in California during and after the Gold Rush period, feared and romanticized as an outlaw/rebel/bandit. One oak story in the Murieta folklore has it that he was betrayed by one of his men who, charged with guarding some two hundred pounds of gold, instead buried it for himself at the foot of an oak tree. The man paid for this betrayal with his life, and the treasure, if it ever existed, was never found. (Gordon, T.J. 1983. Joaquin Murieta: Fact, Fiction and Folklore. *All Graduate Theses and Dissertations*.) A park ranger told me once that they had a story that Murieta's band camped for a time in the clearing under that ancient *Q. chrysolepis*.

4. Ortego, J., P.F. Gugger, and V.L. Sork. 2015. Climatically stable landscapes predict patterns of genetic structure and admixture in the Californian canyon live oak. *Journal of Biogeography* 42(2): 328-338.

5. Hauser, D.A., A. Keuter, J.D. McVay, A.L. Hipp, and P.S. Manos. 2017. The evolution and diversification of the red oaks of the California Floristic Province (*Quercus* section *Lobatae*, series *Agrifoliae*). *American Journal of Botany* 104(10): 1-15.

6. Keuter, A., and P.S. Manos. 2019. *Agrifoliae*: the California Red Oaks. *International Oaks* 30: 191-202.