



International Oaks

The Journal of the International Oak Society

Proceedings
9th International Oak Society Conference
October 21-24, 2018

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This issue is dedicated to Michael Avishai, Bob Berry, and Doug McCreary each of whom has inspired oak enthusiasts around the world. May their memory live on in the oak trees that we grow and in the understanding we come to have of them.

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The Oaks of Apple Park, Dave Muffly

Mapping the Elevational Distribution of Oaks in the Eastern Himalayan Mountains, James Thorne

Southern California Pests and Diseases: History, Biology and Current Research, Akif Eskalen

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PREFACE

Setting the Stage in UC Davis

Over the last dozen years, the International Oak Society Conferences I have attended have been tremendously enriching both personally and professionally. They have taken me to inspiring places that I would have never discovered or ventured to on my own, introduced me to friendly and fascinating people with so much knowledge and passion to share, helped me grow the UC Davis Arboretum and Public Garden's oak collection through acorn exchanges, and supported the development of my expertise and enthusiasm for oaks.

For years, I dreamed of hosting a conference at the University of California, Davis campus. I wanted to give back to a Society that had given me so much and introduce my IOS friends to Shields Oak Grove and the beautiful and diverse wild landscapes of California. I was also excited to forge new connections between California colleagues and the international membership of the IOS and encourage cross-pollination of ideas and inspiration. This past fall, after three years of preparations, that vision was realized at a scale that exceeded my imagination.

Our Conference Committee chose “Oak Landscapes of the Future: Adapting to Climate Change” as the theme for the 9th International Oak Society Conference in response to the increasing urgency of this global issue. Climate change has been described as the biggest threat to our planet and the greatest challenge of our time. From urban forests to wildlands to public garden collections, all natural and human-created landscapes will be profoundly affected.

These concerns hit home at the UC Davis Arboretum and Public Garden, the official Conference host, which encompasses the landscape of the full 5,300-acre campus, including a 100-acre arboretum, an urban campus core, natural areas, a riparian reserve, and agricultural lands. Our organization holds the unique position of being responsible for the long-term stewardship of oak trees in these diverse settings as well as being a training ground for future environmental leaders through our Learning by Leading™ program. Looking to the decades ahead, our response to future climate uncertainties has been to develop a Living Landscape Adaptation Plan that identifies key strategies for building resilience in our tree canopy (see Mary Burke's article, pp. 31-36, for more about this).

When our Conference Committee put out an open call for sessions, we had no idea how enthusiastically people would respond. Holding concurrent sessions allowed us to give more presenters an opportunity to share their work and cover a greater diversity of topics. With such a variety of presentations, workshops, and tours what ties it all together? Shannon Still

and I identified four broad ideas that in many ways reflect the shared values and beliefs that underlie and motivate our work.

(1) Oaks are important (to people). Although many of us may take it for granted, the concept that “oaks are important” is not universally embraced in modern society. Our shared belief in the importance of oaks brings tree-lovers together to join organizations like the IOS, and we continue to find ways that oaks bring value to our lives. Some of our presenters enrich our understanding of people’s deep cultural connections to oaks and see them as an ongoing source of inspiration and rejuvenation. Some of our presenters study oaks as the backbone of ecosystems and explore the way they support habitat for diverse wildlife. Still other presenters explore the role that oaks can play in supporting healthy human communities by providing ecosystem services, offering food, and contributing to livable cities.

(2) Oaks face challenges. In order to protect the oaks we so care about, we must understand the challenges that threaten their survival. Among our presenters, we have several researchers who study threats to oaks from pests and pathogens. Other presenters analyze how public policies and urban and agricultural development fragment and destroy oak habitats. We also have presenters who investigate problems with oak regeneration and how to overcome them. Some of the most daunting challenges facing oaks in the future will likely come from the impacts of climate change. Some of our presenters model future scenarios to predict how extreme weather, sea level rise, altered fire ecology, temperatures, rainfall, and shifting pests and pathogens will affect oaks.

(3) Oaks need care and conservation. Once we understand more about the challenges oaks face, it becomes increasingly clear that care and conservation will be needed to preserve oak diversity into the future. More questions arise as soon as you set conservation goals. How can you protect something if you don’t even know how to describe or define it? This is where our presenters who work in the realm of basic science to illuminate the genetic diversity and evolutionary relationships of oaks play a role. Meanwhile, other presenters focus on more practical considerations about identifying best methodologies for protecting, maintaining, and growing oaks. Perhaps the most powerful long-term strategy for conserving oaks is to share messages with others about their importance and to spread the love for oaks. Instilling this emotional connection is the focus of some of our presenters.

(4) We need to collaborate for oaks. Creativity and collaboration will be essential to solve the daunting challenges we face with climate change. The Conference brought together people representing a broad array of interests across disciplines to consider how to develop and implement solutions that will protect and ensure the longevity of oak landscapes. I’m so grateful to our presenters who used the Conference as an opportunity to draw participants together, strengthen existing collaborative networks, and establish new ones. Our participants and presenters represented local and global perspectives, theoretical and practical orientations, training as artists and scientists, amateur and professional experiences, and urban and wildland specialties. Bringing these perspectives together is a unique and special quality of the International Oak Society.

On behalf of the UC Davis Arboretum and Public Garden and the 2018 Conference Committee, I hope you gain as much from these Proceedings as we did from this exciting Conference. Let us all build on the friendships and collaborations that the IOS helps make possible to study, advocate for, and conserve oaks.

Emily Griswold
Conference Chair

