



INTRODUCTION

On the Road Again

After the sedentary COVID years, and then with 2022 being an IOS Conference year (during which we do not organize other events), the year 2023, as you will soon read, was an explosion of IOS events and other travel adventures all over the world.

From Taiwan to Texas (Strijk and Cameron; Cameron), to the United Kingdom (MacEwen and Cameron; Cameron and Haddock), to Oregon and California (Lake), and Mexico (Chassé and Cavender-Bares): globetrotting oak nuts happy to be on the oak road together once again.

Travelling back in time, in a sense, Kremer summarizes herein the applications of ancient DNA (aDNA) in understanding the evolutionary biology of oaks, the pace of microevolution, and the unique insights aDNA can provide regarding the history of the relationships between oaks, oak populations, and humans.¹

Gaytán-Legaria and González-Rodríguez present recent results of their analyses of ecological specialization and evolutionary patterns in the context of high species richness in Mexico, thus stressing the importance of incorporating ecological niche analysis in evolutionary studies to improve our understanding of the mechanisms of oak species coexistence and microevolutionary processes.

Rave, based on his 20-year-long experience of planting trees in challenging urban environments (heat islands and compacted, nutrient-poor, heavily mineralized, toxic soils), has come to the conclusion that within the great diversity of the genus *Quercus* one can almost always find an oak adapted to a given soil and climate, however seemingly inhospitable, making oaks excellent choices for projected climate-change scenarios.

Of great concern today (and not just for oaks), climate change, anthropic pressures, and conservation are addressed in this volume focusing on different *Quercus* species. Vanderplank et al. summarize the situation for *Q. dumosa* in Baja California (Mexico); González-Orozco et al. explore the challenges faced by *Q. humboldtii* in Colombia; and Strijk and Cameron present the threats facing the unique Fagaceae assemblages in southeastern Taiwan.

¹ For an introduction to this topic see Kremer, A. 2016. The Pace of Microevolution of European Oaks During Environmental Changes. *International Oaks* 27: 267-276.

For those of you growing oaks, if you have not changed your label of *Q. ×hispanica* (the well-known name for the hybrid between *Q. cerris* and *Q. suber*) to *Q. ×crenata*, well done! The final resolution (hopefully) of this chapter of *Quercus* nomenclature is that *Q. ×hispanica* is indeed the correct name (Coombes and Vázquez). And two new species, *Q. nanchitlensis* from Mexico and *Q. sontraensis* from Vietnam (Chassé and Coombes), presented here, reflect, once again, the diversity of this genus and hints at all that certainly remains to be discovered. Jablonski and Russell present a selection of cultivars including some lost ones.

Looking at another side of oaks, Russo plunges us into the fascinating world of the vital relationship between cynipid wasps and our favorite trees, stressing the fact that, here too, many species are as yet undescribed. And, as it happens, a new one has just recently been described: *Andricus coombesi*, the etymology of which I imagine needs no explanation.

Amongst the many other things he is known for, and, to date, has never been proven wrong about, Albert Einstein promoted the idea that science is not an accumulation of immutable knowledge but rather a dynamic, continuous reconstruction of how *Homo sapiens* go about figuring things out. Is there a better example of this than the syngameon concept, brilliantly explained herein by Cannon? These historical moments of change can be intellectually destabilizing – which is exactly why they are so exciting. The syngameon tells us that, yes, species exist as diagnosable evolutionary units but also as conduits for genetic exchange, that they are not closed “boxes” that evolve to not have anything to do with what is going on around them, so to speak. This sheds a significantly new light on our understanding of evolution, and, in addition, should lay the foundation for a new way of thinking about conservation strategies.

As I am writing this, I am thinking that the year 2024, like the year 2023, is chock-full of IOS events. As you are reading this, perhaps some, that you may have participated in, will already have taken place, while others, that you may be looking forward to attending, have not. For the latter, do think about authoring your experience for publication in this Journal. Like with the syngameon, the more “lines of connectivity” we have with our members, the richer we all will be.

Béatrice Chassé

A handwritten signature in blue ink, appearing to read 'B. Chassé', enclosed within a circular scribble.