

Understanding Botanical Traits of Rancho La Brea Fossils for Conservation Purposes

Steven Mendoza

La Brea Tar Pits, Los Angeles, CA, USA

The La Brea Tar Pits and Museum in Los Angeles has over 4 million Pleistocene fossils that help us better understand California during the last Ice Age. While the focus of Rancho La Brea research has often been on understanding the site's megafauna, the plant fossils of this site hold a wealth of untapped information. Seeds, nuts, pods, leaves, and entire trees have been preserved in the asphalt to such a degree that researchers have identified over 150 different species of plants. These plants document the environmental changes Southern California has experienced from before the Last Glacial Maximum until today, proving their resilience during extreme climatic changes.

This project aims to create a landscape restoration plan that demonstrates different time periods and plant assemblages as they changed over time. La Brea Tar Pits is a unique site where a dialogue between paleontological researchers and environmental practitioners (habitat restorationists, city planners, conservation specialists, etc.) can be facilitated. For this conceptual Pleistocene Park, paleontological data will be utilized to inform and create plant recommendations for ecological practitioners to restore certain parts of Hancock Park to different temporal ranged iterations of Pleistocene LA. This will create a "living laboratory" that researchers from the Museum and elsewhere can utilize to survey, observe, and explore how novel ecosystems respond to plant assemblages of the past. This information is imperative to understanding how paleontological data can better inform conservation decisions in different regions and ecosystems.

Contact Information: Steven Mendoza, PiNE Project Manager, La Brea Tar Pits and Museum, 6236 Hoover Ave, Whittier, CA, 90601, USA, Phone: 562-457-7216 or 562-457-7216, Email: stevenjmendoza18@gmail.com