In May 2024, The San Diego River Park Foundation observed alarming levels of dieback of the Lakeside ceanothus on our preserves and other parts of El Capitan Mountain. Dieback is a condition where a tree or shrub begins to die from the tips of its leaves or roots backward.

2019

2024

Concerned about this issue, our staff brought together local and state experts, including representatives from the U.S. Forest Service, U.S. Fish and Wildlife Service, and California Department of Fish and Wildlife, as well as academic experts like Stephen Davis (Pepperdine University) and Brandon Pratt (California State University, Bakersfield), to investigate potential causes.

The dieback's origins remain unclear but may stem from severe drought conditions or some form of pathogens. On July 24, in collaboration with the San Diego Wildlife Alliance and UC Davis pathology researchers, we conducted fieldwork at El Capitan Mountain to collect soil and plant tissue samples for analysis. Early findings identified the presence of fungi from the *Botryosphaeria* complex—opportunistic pathogens that can cause severe damage under stress conditions, such as drought. These fungi are known to affect woody plants like grapevines, oaks, and Ceanothus species, and similar symptoms have been documented in Southern California during previous drought periods. Other potential factors include insect damage, as resin exudations observed on affected plants might result from insect attacks exploiting stressed vegetation.

Conclusive evidence of insect involvement will require follow-up studies in the spring when larvae may become visible. Additionally, *Phytophthora thermophila*, a water-loving organism typically found in creek bed soils, was identified but is not believed to be causing significant harm. To address this issue further, we will continue collaborating with our partners to expand research, collect seeds for a seed library, and monitor the health of Ceanothus populations at our open space preserves. These efforts aim to preserve and restore these critical native plant communities.