Pepperwood
PRESERVE
Inspiring conservation through science

SONOMA COUNTY
Climate Resilience Team

What role does an NGO specializing in conservation science play on the Sonoma County Climate Resilience Team?

Pepperwood serves as a climate adaptation science catalyst and facilitator for the Sonoma County Climate Resilience Team, a public-private coalition gaining international recognition for accelerating climate action across sectors and creating a transferable model for communities worldwide

A leader in conservation science and climate adaptation

The Pepperwood Foundation is a 501(c)(3) organization dedicated to advancing science-based conservation through research, education, and community building. Pepperwood owns and operates the Dwight Center for Conservation Science, an ecology institute on a 3,200 acre research reserve situated in the California Coast Ranges of Sonoma County, one hour north of San Francisco. Pepperwood's role in regional climate adaptation entails monitoring the health of our natural resources, convening nationally-recognized science experts, and translating research into actionable data products for our region's land and water managers. We serve as climate adaptation advisors to federal, state, and local natural resource agencies and private landowners to help them bridge from science to action.

Pepperwood's Terrestrial Biodiversity Climate Change Collaborative (TBC3)

Pepperwood's TBC3 is a dynamic collective of climate, hydrology and ecosystem experts developing a peer-reviewed science framework to support climate adaptation strategies for Northern California. TBC3's interdisciplinary knowledgebase captures relationships between climate, hydrology, fire, and terrestrial and freshwater ecosystems. Derived data products can be customized to meet specific user needs. TBC3 worked directly with Sonoma County agencies and the White House Office of Science and Technology Policy's Partnership for Resilience and Preparedness (PREP) team to generate the data for Sonoma's Climate Resilience Dashboard. Co-chaired by Drs. Lisa Micheli of Pepperwood and David Ackerly of UC Berkeley, TBC3 was launched via seed funding from the Gordon and Betty Moore Foundation. TBC3 narrows the gap between cutting-edge research and climate smart conservation strategies with a focus on ecosystem-based approaches to increasing the resilience of our region's life and landscapes.

What is Pepperwood's role on the Sonoma County Climate Resilience Team?
(CONTINUED)

Pepperwood PRESERVE
Inspiring conservation through science

A Watershed Sentinel Site generating critical data

The National Oceanic and Aeronautics Administration recently established a Bay Area Sentinel Site cooperative to track ocean and bay water elevations and ecosystems through a coordinated monitoring strategy. At Pepperwood, we are expanding this approach inland by serving as a Watershed Sentinel Site collecting critical real-time data on our climate, water, land, and wildlife. This data informs local natural resource management and tracks local climate change impacts in concert with data networks across the globe. This role as an ecological research field station has been central to achieving Pepperwood's mission since its inception under the auspices of the California Academy of Sciences. Pepperwood hosts top caliber scientists from across the US and beyond through our visiting scholars program. Original research conducted on-site is complemented by long-term climate, hydrology, and ecosystem monitoring staffed by Pepperwood's own ecologists.

Climate-ecosystem monitoring at Pepperwood

Sentinel Site tracks climate factors including fog and soil moisture

North America's first Wildlife Picture Index tracks animal populations

Grassland and forest monitoring provide data on ecosystem health

Translating global climate models into user-friendly tools for local resource agencies

Pepperwood partnered with the Sonoma County Regional Climate Protection Authority to launch Climate Ready North Bay, a flagship data platform to empower our community with the science needed to confront the natural resource challenges presented by climate change. A USGS physics-based watershed model provides the foundation for Climate Ready data products in order to capture the potential fate of our water, ecosystems, and communities in a warming world. Climate Ready worked directly with land and water managers to assess historic and projected patterns of climate impacts on local resources—including water supply, forest health, and wildfire risks. The Pepperwood-led science team, including USGS, UC Berkeley, and Point Blue Conservation Science, developed site-specific assessments tailored to the individual needs of resource management agencies in Sonoma, Marin, and Napa counties. Climate Ready North Bay bridges the gap between researchers who produce applied climate science and the managers who need it on the ground.

CONTACT: Lisa Micheli, PhD, President & CEO | lmicheli@pepperwoodpreserve.org | (707) 591-9310 x203