Creating a more biodiverse and climate resilient California

The Sentinel Site Network is a partnership between the UC Natural Reserve System, CDFW, and private lands. It is a component of the California Biodiversity Network aimed at achieving conservation goals established by California 30x30 legislation. Data from the network supports university, agency, and NGO research advancing actionable solutions. 30x30 success will improve biodiversity stewardship and foster collaboration across public, private, and tribal communities.

MAINTAIN A CLIMATE MONITORING BACKBONE

For decades, the NRS has maintained a network of climate observatories at reserves. These data, essential for ongoing research, allow scientists to track climate change and monitor how ecosystems are affected by wildfire, drought, and other extreme climate events.

The NRS is flying drones to measure tree survivorship post fire, then using AI and climate monitoring data to determine what affects ecosystem recovery in fire-affected lands. Agencies and the public can use this AI to determine what to plant to restore fire-affected areas.

BUILD TOOLKITS TO PLAN FOR POST-FIRE RESILIENCE

DEVELOP AI TO STUDY WILD ANIMALS

We are creating AI to process images from remote cameras at field stations across the Sentinel Site Network to identify wild animals. Millions of these images will establish a baseline of biodiversity across California and enable scientists to connect changes in animal ranges and populations with shifts in environmental conditions captured by climate monitoring.

SUPPORTING

30X30 GOALS

CLIMATE CHANGE RESEARCH

BIODIVERSITY CONSERVATION

NATURE-BASED SOLUTIONS

COLLABORATIONS + COOPERATION

AT NRS SITES