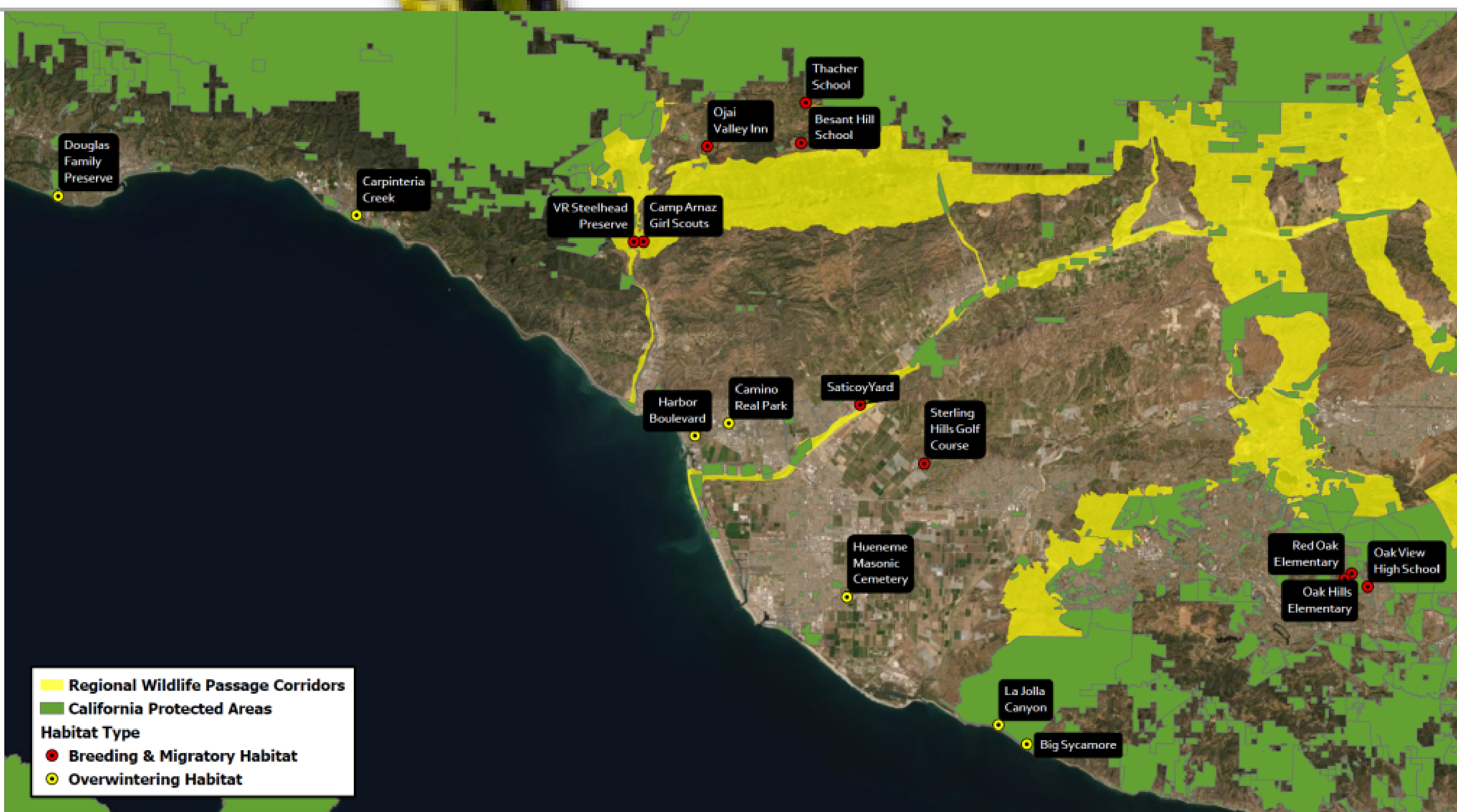


Restoring and Enhancing Native Perennial Shrublands for Native Insects & Pollinators

Monica Matthews, Heidi Ortloff & Dr. Jamie Whiteford Ventura County Resource Conservation District



01. Introduction

The Western Monarch population is less than 1% of what it was in the 1980s; add to this the stressors of climate change, habitat loss, and pesticides, and the result is a drastically threatened species. During winter, Monarchs need groves of tall trees to roost that offer protection from environmental factors such as wind, rain, cold temperatures, and sun exposure, in addition to resources such as freshwater and nectar. Due to the geographic location of Ventura County, restoration of current overwintering habitat locations are crucial to continue the historical migrations of Monarchs



02. Objective

Restore breeding, migratory and overwintering habitat for monarch butterfly larvae and adults, as well as other native insects. The map shown above illustrates the locations of the sites we at the VCRCD have restored thus far.

Abstract

NATIVE INSECTS, INCLUDING OUR NATIVE POLLINATORS, ARE SOME OF THE MOST IMPERILED TAXA IN OUR ECOSYSTEMS AT THIS TIME IN OUR HISTORY. AS A RESULT OF HABITAT LOSS AND DEGRADATION, PESTICIDE USE, INVASIVE SPECIES AND THE CLIMATE CRISIS, THESE POPULATIONS ARE BEARING THE BRUNT OF THE ENVIRONMENTAL CRISIS AFFECTING ALL OF US. RESEARCH SHOWS THAT LOSS OF OR SEVERE REDUCTION IN THE POPULATIONS OF THESE ORGANISMS CONTRIBUTES TO ECOSYSTEM COLLAPSE. ORGANISMS SUCH AS MANY OF LARVAL STAGE LEPIDOPTERANS FORM MORE THAN HALF OF THE DIET OF NATIVE BIRDS AND ADULT STAGE NATIVE INSECTS OF MANY TAXA PROVIDE POLLINATION SERVICES FOR FRUIT PRODUCTION AND PLANT REPRODUCTION IN ALL ECOSYSTEMS. DESIGNING RESTORATION TO PROVIDE FOOD PLANTS FOR NATIVE INSECTS, THAT BEGINS TO REBUILD THE FOOD BASE FOR THESE PRIMARY CONSUMERS REBUILDS FOOD WEBS AND THUS ECOSYSTEMS. THE WORK DOES NOT END WITH RESTORATION, AS FURTHER MONITORING AND MANAGEMENT CONTINUE TO BE NECESSARY TO ENSURE THESE RESTORED AREAS MEET THE INTENDED GOALS FOR OUR PROJECTS AND NEEDS OF OUR NATIVE INSECT AND POLLINATOR POPULATIONS, BUT IT IS A CRUCIAL FIRST STEP TO REBUILDING ECOSYSTEM HEALTH WITHIN OUR COMMUNITIES.

03. Method

We worked with and continue to work with local community subcontractors and volunteer organizations to prepare, plant and maintain sites throughout the county. Partnering organizations include California Conservation Corps, the Arc of Ventura County, Pleasant Valley Recreation and Park District, Besant Hill School of Happy Valley, The Thatcher School, the Ojai Valley Land Conservancy, California State Parks and Girl Scouts.



04. Next Steps

As part of the on-going grant deliverables, the VCRCD will monitor restored sites to observe how insect populations respond to the new vegetation. Additionally, the VCRCD hopes to continue to monitor these, expand on them by planting more in the region, and conduct research to assess the most effective management strategies, like trimming, prescribed fire and herbivory, that can employed in shrubland ecosystems to most effectively support native insect populations.

