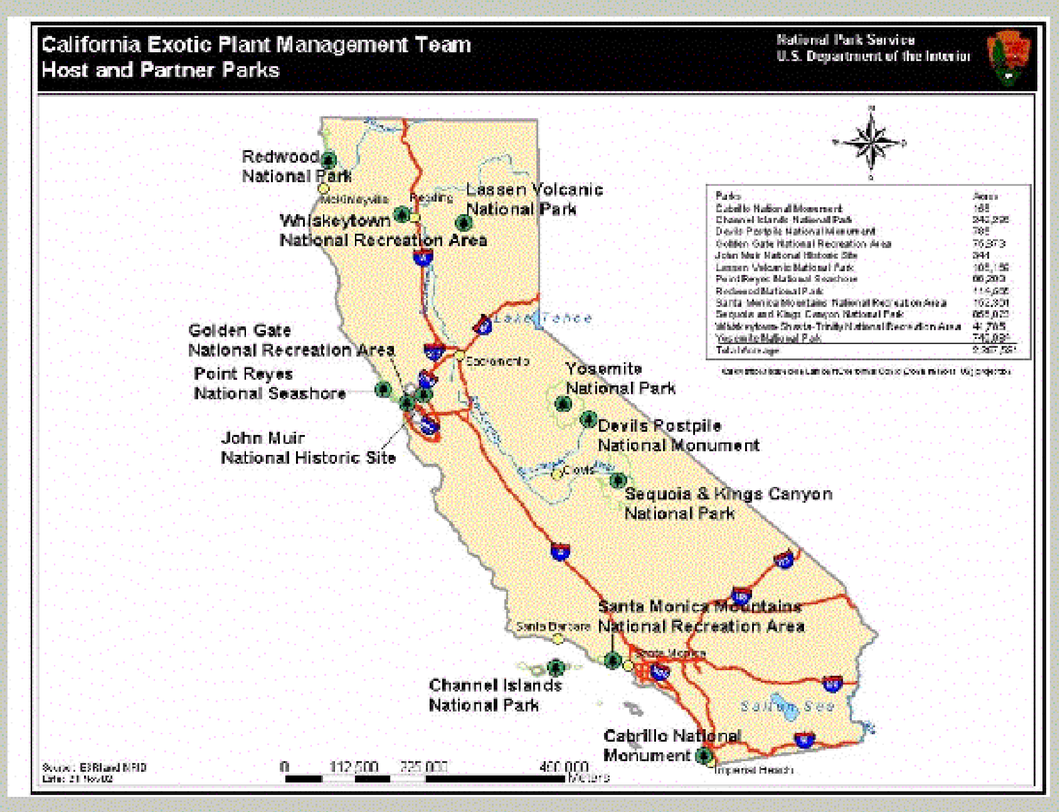
Exotic Plant Management Team in California's National Parks

The California Exotic Plant Management Team (CaEPMT) is a group of five teams of exotic plant management specialists that travel to 14 national parks across the state of California to help out managers with their most incipient invasive plant populations. This region constitutes 60% of the west coast of the United States and has been determined by The Nature Conservancy to be a "global biodiversity hotspot". Projects range from sea level along the shore of Channel Islands National Park, to the high Sierran wilderness in Devil's Postpile National Monument (8,000'). The partner parks, referred to as the California Invasive Plant Cooperative include: Point Reyes National Seashore; Yosemite, Sequoia, Kings Canyon, Channel Islands, Lassen Volcanic, and Redwood National Parks; Cabrillo, Pinnacles, and Devils Postpile National Monuments; Golden Gate, Santa Monica Mountains, and Whiskeytown National Recreation Areas; and John Muir National Historic Site. (See map below.) The philosophy of the California EPMT has been to concentrate on smaller, outlying infestations and prioritize projects that protect relatively rare or pristine areas.

The CaEPMT uses the latest Global Positioning Satellite (GPS) technology combined with Geographic Information Systems (GIS) databases to compile, monitor, and analyze spatial data. By inventorying each park's specific invasive weed population, maps can be generated and linked to informative databases and updated easily, depending on species growth or decline. Through the use of GIS databases with GPS locations, the CaEPMT can easily locate a hard-to-find treatment site the next year and keep database information current.



California
Exotic Plant Management Team

Italian Stone Pine Control (CHIS)

This season, invasive Italian stone pine (*Pinus pinea*) on Channel Islands National Park (CHIS) again met a formidable opponent, the California Exotic Plant Management Team (CaEPMT). The CaEPMT treated Italian stone pine on the islands previously and made great strides towards getting this species to a maintenance level. Eradication of Italian stone pine on CHIS is unlikely because of its historic and cultural significance. Partnering with our Student Conservation Association team, CHIS National Park staff botanist Sarah Chaney, and Channel Islands Restoration, we treated the last remaining feral populations of Italian stone pine on Santa Cruz Island. Treatment of this population had been all but abandoned due to the difficulty in accessing individuals through the extremely dense understory of native vegetation and steep, rocky terrain. To address this population, we divided into teams of two, one person equipped with a chainsaw and another equipped to apply a drill/fill herbicide treatment. The larger trees were treated with herbicide, while smaller individuals were felled with chainsaws. The thicket of vegetation made it virtually impossible to find trees, so we spotted targets from adjacent slopes and guided others to them. With our unique skills and perseverance, we accomplished what was thought to be impossible.

Santa Cruz Island Olive Removal

A project highlight for the Marathon SCA CaEPMT involved the removal of invasive olive trees (*Olea europaea*) from the eastern portion of Santa Cruz Island (Channel Islands National Park). The treatment area encompassed a 1,000-acre tract adjacent to an historic (early 1900s) domestic olive grove of approximately 600 trees. The five-person team, along with CHIS-SCA, James Roberts, carried out a month-long project that accomplished the removal of 3,577 olive trees. Each tree removed was documented by recording its precise location using a handheld GPS unit, and its overall height and maximum burl diameter. Height and burl diameter are being used together as a surrogate measure of the approximate age. This information will enable CHIS to estimate how fast and far the plants are spreading from the source olive tree population, and to estimate the cost required to contain the grove at its current size. Several grove management strategies are being considered, all with the goal of reducing both seed formation and dispersal from the grove, while still retaining some of the grove's contribution to the historic landscape. This project was completed without vehicle access. The team heroically backpacked their supplies for the entire month across the steep terrain to their backcountry base camp.