



RESOURCE BRIEF

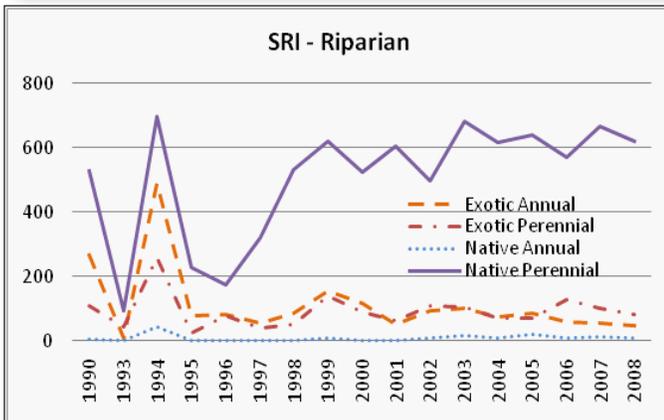
Native Plant Communities

IMPORTANCE

Plant communities are both constituents of and drivers of biodiversity. Loss of specific plant species or plant communities can impact insect, amphibian, reptile, avian, and mammalian species diversity. Several plant communities, such as chaparral, coastal sage scrub and riparian habitats, within the parks in the Mediterranean Coast Network form the foundation of these ecosystems. Many of these communities face threats from urban development, invasive plant species, and changes in climate. For example, increased fire frequencies in the Santa Monica Mountains and active and prolonged fire suppression on the Point Loma peninsula are resulting in significant changes in plant communities. On the Channel Islands National Park, threats to the endemic plant species communities unique to the islands can alter plant population and community structure and even cause the extinction. Maintaining healthy native plant communities requires in-depth understanding of the dynamics affecting species composition and structure.

OBJECTIVES

- Determine long-term changes in distribution and abundance of vegetation communities.
- Determine temporal changes over short and long time scales in species composition and abundance in vegetation communities.



Long-term data from Santa Rosa Island provide an historic perspective invaluable for natural resource management.



Monitoring to detect changes in plant species abundance and distribution will be implemented at all three Mediterranean Coast Network parks.

MONITORING EFFORTS

At the Santa Monica Mountains and Point Loma peninsula, vegetation monitoring will look at three community groups – chaparral, coastal sage scrub and riparian habitat.

- Implementation will be based on the collection of field data, analysis by park or network staff, or academic cooperators, and the gathering and analysis of existing data.
- Each community group will have its own sampling technique.

At the Channel Islands, long-term monitoring of vegetation has been on-going for over 20 years.

- A total of 183 permanent transects have been established on five islands and are monitored annually
- Species are recorded every 30 cm along a 30 meter transect line.

MANAGEMENT IMPLICATIONS

- Detecting changes in species composition can help guide future land management decisions as well as assess the effects of those decisions.
- Data from monitoring efforts reveal effects of large-scale changes worldwide such as global climate change.
- By determining the relative health and composition of plant communities and comparing them with known habitat preferences of certain wildlife species, park staff can better manage those communities to ensure the long-term viability of wildlife species in the Mediterranean Coast ecosystem.

For more information:

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