

Southwest Network Collaboration

Information Brief

National Park Service
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Inventory & Monitoring

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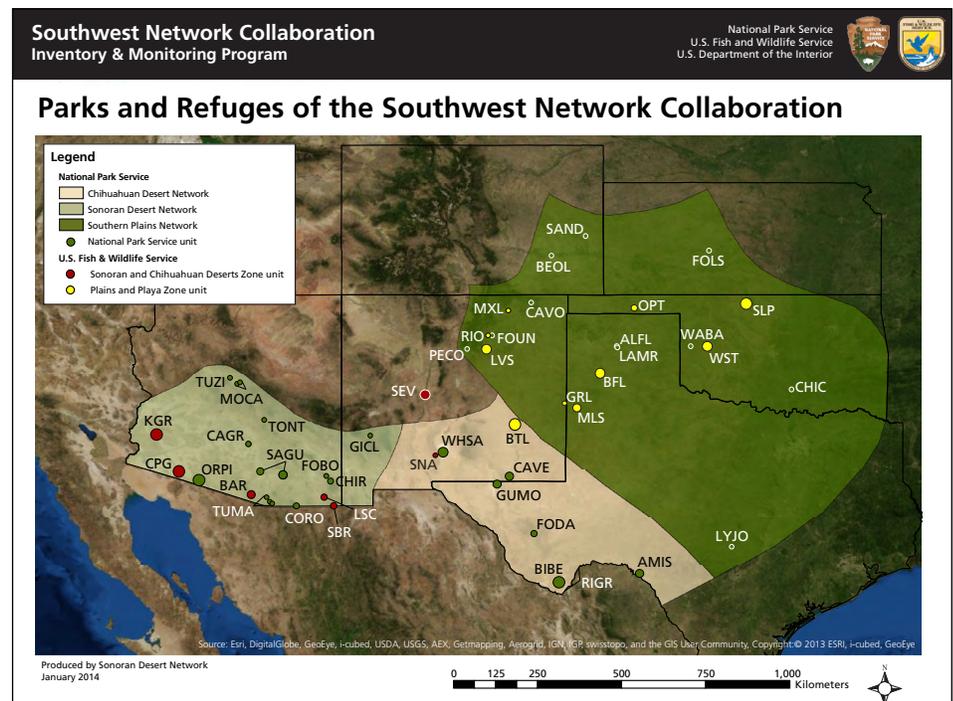
The Southwest Network Collaboration: Interagency Cooperation for the Common Good

Everyone knows that ecosystems don't respect human-made boundaries—and that budgets for federal land-management agencies have been shrinking. So when the staff of the groups charged with inventory and monitoring of natural resources in the American Southwest looked across those invisible boundaries at each other, they found they had a lot in common. Then they put those commonalities to work.

Background

The Southwest Network Collaboration (SWNC) is a joint effort between the National Park Service (NPS) and U.S. Fish and Wildlife Service (USFWS). Through this collaboration, five different organizations responsible for natural resource inventory and monitoring share knowledge, protocols, staff resources, and work duties. The goal of the SWNC is to improve effectiveness and efficiency across all five "networks." The NPS partners are the [Sonoran Desert Network](#), [Chihuahuan Desert Network](#), and [Southern Plains Network](#). The USFWS partners are the [Sonoran and Chihuahuan Deserts Zone](#) and [Plains and Playa Zone](#).

Under the SWNC, the networks are collaborating functionally and scientifically to address climate change impacts and other issues of management and conservation concern across millions of acres of public lands in the Southwest. These issues range from changes in temperature and precipitation patterns to issues of air quality, increases in invasive species, and changes in richness and distribution of flora and fauna. Sharing scientific knowledge and applying it to the larger landscape allows the agencies to address pressing conservation issues at multiple scales, from the individual park or refuge up to greater ecoregions. This joint approach offers both improved efficiency and more informed management of the Southwest's natural resources.



How it Works

The SWNC networks are sharing technical expertise, field crews, monitoring protocols, and duties related to data management and reporting for the following projects:

Information management. Our staff has created an information management system that currently serves 15 refuges and 28 parks. Both agencies have access to the same scientific records, as well as information on research and management efforts. Data are collected electronically in the field with devices that minimize both error and time spent entering and verifying data.

Inventory of seeps, springs, and tinajas. An inventory of springs ecosystems was conducted in seven refuges and five parks. These data provide a consistent base level of information that will help us to develop a strategy for long-term monitoring.

Climate, groundwater, and air quality data inventory. USFWS groundwater wells and air quality and climate stations are being inventoried, and data is being collected and summarized for refuges. These data are being combined with NPS data and used to guide the development of shared protocols.

Exotic invasive plants. SWNC crews are conducting early detection surveys of exotic invasive plants within parks and refuges. Detecting these plants early will allow park and refuge staff to control the spread and impact of these species.

Mammal inventory and monitoring. Together, the NPS and USFWS are developing a framework to inventory and monitor long-term changes in mammal community and population parameters within and among land management units, using economical wildlife “camera-trap” technology. These data will aid the development of management strategies for individual species based on an unbiased sample of the entire community.

Landbirds. The USFWS is providing expertise and leading certain aspects of NPS landbird monitoring. In addition, the USFWS has initiated landbird monitoring on its refuges utilizing the same protocol as that used by the NPS. The two agencies are working jointly to determine how the data will be analyzed and reported. Regular monitoring of breeding species on parks and refuges allows for the detection of local and regional status and trends.

Flora of refuges and parks. NPS botanists are working with and guiding USFWS botanists in the development of comprehensive assessments of flora across parks and refuges in the Southwest. These data are being shared through refuge

and park-specific botanical field guides and through the [SEINet Biodiversity information portal](#). This project provides refuge and park staff with accurate and timely baseline data on floristic biodiversity. The collaboration leverages NPS expertise and existing methodologies, while the partnership broadens the scope of the overall project.

Upland vegetation, soils, and fire effects. The NPS provides joint trainings and expertise throughout the year for both agencies. Combining the data from NPS and USFWS units provides a broader context for understanding monitoring results and allows us to compare the effects of different management actions, such as fire use, on soils and vegetation.

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