

2013 George Melendez Wright Climate Change Youth Initiative

Fifteen parks and programs hosted internships in 2013:

- **Atlantic Landscape Conservation Cooperative, Providence, RI** – Analyze long-term tide gauge data from coastal parks in the Northeastern US, determine locations for additional gauges, and identify which sites are most vulnerable to sea-water inundation.
- **Bandelier National Monument, Los Alamos, NM** – Conduct research on the existing conditions of ancestral Pueblo archaeological sites in order to establish baselines for assessing how vulnerable these unique archaeological resources are to climate change.
- **Climate Change Response Program, Fort Collins, CO** – Plan, design, and help create web-based climate change communication products—including images, video, and stories—that will inform diverse internal and external audiences about climate change issues in the national parks.
- **Grand Canyon National Park, Grand Canyon, AZ** – Establish a citizen science project focused on plant phenology (the timing of life events like flowering and fruit production) to help the park track climate change impacts on plant communities and engage park visitors in scientific research.
- **Great Smoky Mountains National Park, Gatlinburg, TN, and Cherokee, NC** – Expand an existing phenology citizen science program, work with local high school students from Hispanic and Cherokee communities, and monitor cloud water sensors at high elevations to improve local climate models of the park.
- **Hawaii Volcanoes National Park, Hilo, HI** – Help build and restore native plant communities resilient to ongoing and predicted climate change by collecting and evaluating data from experimental field plots. Also conduct a greenhouse experiment to assess the tolerance of native seedlings to water restriction.
- **Lowell National Historical Park, Lowell, MA** – Produce multi-media products that convey key messages about climate change in an urban national park related to the Industrial Revolution. Developed products will be used for educating the public and school groups and for training park staff.
- **National Center for Preservation Training and Technology, Natchitoches, LA** – Work with architectural preservation professionals to plan a workshop, conduct literature-based research on environmental tolerances of traditional structures and materials, and help develop a handbook on climate change impacts to cultural resources protected by the NPS.

- **North Cascadia Adaptation Partnership, Seattle, WA** – Assist with a research project to determine how changing precipitation and soil moisture may affect roads and trails in two National Parks (Mt. Rainier and North Cascades) and two National Forests by conducting a road/trail network analysis and identifying areas of risk to trails, structures, and resources.
- **Northeast Regional Office, Philadelphia, PA** – Assist nine historic parks and battlefields in the Northeastern US in collecting data on greenhouse gas (GHG) emissions associated with electrical consumption, vehicle use, and other operational areas, identify actions to reduce emissions, and help ensure those actions are included in each park's Climate Friendly Park strategic plan.
- **Saguaro National Park, Tucson, AZ** – Develop, test, and refine a conceptual model that uses over a decade's worth of data to describe when and where water is available, which will enable park staff to predict water availability and highlight locations of high conservation and management value.
- **Santa Monica Mountains National Recreation Area, Thousand Oaks, CA** – Lead the park's citizen science plant phenology monitoring program, with a focus on coordinating volunteer citizen scientists. Work with a partner organization to involve K-12 students in phenology monitoring and create interpretive and educational materials in English and Spanish.
- **Sequoia and Kings Canyon National Parks, Three Rivers, CA** – Enhance the parks' citizen science plant phenology monitoring program by developing a web-based photo diary that combines images from established web cams with temperature and precipitation data, and by creating additional distance-educational materials for an interactive phenology website.
- **Sitka National Historical Park, Sitka, AK** – Conduct field-based science and communicate it to the public by leading an on-going water quality monitoring project on the Indian River, report about science and climate change topics on the park's website and Facebook page, and help deliver education programs to school groups.
- **Western Arctic National Parklands, Kotzebue, AK** – Via backcountry camping in remote wilderness areas, assist with archaeological surveys of sites threatened by sea level rise in Bering Land Bridge and Noatak national preserves, and help develop social media products to communicate how the parks are responding to climate change impacts on cultural resources.