

National Parks and the Scaling Up Imperative

Raymond M. Sawajot

AS THE UNITED STATES NATIONAL PARK SERVICE (NPS) ENTERS ITS SECOND CENTURY in 2016, the agency, its programs, and the system of units under its care face unprecedented challenges. The specter of climate change has already begun altering and rearranging natural and cultural resources (e.g., Suarez et al. 1999; Moritz et al. 2008; van Mantgem et al. 2009; Moss 2010; Marzeion et al. 2014; Marzeion and Levermann 2014), and myriad other threats, from non-native invasive species to wide-scale land use change, all pose significant conservation concerns for park managers. The ubiquitous and far-reaching extent of these challenges will require NPS to embrace landscape-scale collaborative conservation that reaches beyond the boundaries of park units, and engages a full complement of programmatic and policy tools.

The traditional concept of a national park or protected area as a static expression of an ecosystem, a set of natural features, or a collection of cultural or historic objects has been replaced by a more dynamic perspective that recognizes natural and cultural resources as part of ever-changing environments. The challenge for NPS and other park management agencies is how to achieve their conservation and preservation missions while recognizing that changes are inevitable and stressors that impact resources often emanate from outside of parks, beyond the control of park managers. Indeed, it is widely recognized that essentially all resources in parks are inextricably linked to their surrounding landscapes, from migratory species that spend only portions of their life cycles within national parks (Berger et al. 2014) to entire ecosystems, such as the Everglades, that are dependent on land use and management decisions occurring outside of park boundaries (Mitchell and Johnson 2015). For cultural resources as well, the place-based authenticity of a visitor's experience is linked to the landscape context in which it resides. To manage parks and protected areas successfully and ensure that resource values persist, park managers must understand landscape-scale phenomena; establish and maintain relationships with other agencies, organizations, and stakeholders; and engage directly in conservation efforts at local, regional, and even national and international scales. It is imperative that NPS embrace this concept of "scaling up" in its second century to ensure that the natural and cultural resource heritage it is entrusted to protect is conserved for future generations.

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The need for “scaling up” is not a new concept for NPS, but its importance and management focus has become a significant area of emphasis. In 2011, as part of the NPS director’s centennial report entitled *A Call to Action*, a formal “Scaling Up” effort was launched that states that NPS should promote large landscape conservation to support healthy ecosystems and cultural resources (NPS 2011). The Scaling Up goal in *A Call to Action* specifically describes the need to “protect continuous corridors” through “voluntary partnerships across public and private lands and waters,” and promotes NPS efforts to do this in multiple geographic areas. NPS has been implementing Scaling Up by establishing a community of practice within the agency to cultivate and share best practices in science, scholarship, and collaborative stewardship that advance landscape-scale planning, policy, decision-making, and education, and reaching out to partners and stakeholders to publicize and advance the importance of landscape-scale perspectives for NPS. Scaling Up accomplishments include a highlights report documenting landscape-scale engagement by NPS (NPS 2014), internal outreach and training materials such as webinars and a Scaling Up web tool; integration of NPS parks, programs, and activities around Scaling Up objectives; and an overall effort to position NPS toward reaching beyond park boundaries and embracing landscape-scale conservation in its day-to-day work.

While the increased emphasis on landscape-scale conservation is fairly recent, NPS has long had tools available that support this kind of work. For example, NPS *Management Policies* (2006) state, “Cooperative conservation beyond park boundaries is necessary as the National Park Service strives to fulfill its mandate to preserve the natural and cultural resources of parks unimpaired for future generations” (p. 13). *Management Policies* further indicate that NPS managers should “cooperate with ... governments ... individuals and organizations to advance the goal of creating a seamless network of parks” (p. 14) and “establish corridors that link together ... open spaces ... and compatibly managed private lands...” (p. 14). At the same time, landscape conservation work must be done collaboratively and in recognition of shared interests, as NPS “will not relinquish any of its authority to manage areas under its jurisdiction, nor will it expect other partners to relinquish theirs” (p. 14).

Legislative authorities also exist that support and recognize the need for NPS to work beyond park boundaries and at landscape scales. For example, the 2008 Consolidated Natural Resources Act (54 U.S.C. §101702) permits NPS to expend appropriated funds beyond unit boundaries if such expenditures help protect park resources. The act also acknowledges the opportunities for, and provides authority to enter into, cooperative agreements inside and outside of park boundaries. Other policies and authorities support similar landscape-scale activities, such as the Service First Authority that allows transfer of funds and promotes collaboration between the departments of the Interior and Agriculture.

NPS also has many partnership programs that offer the capacity to operate outside of traditional national park units, such as the Rivers, Trails and Conservation Assistance program, which provides technical assistance to communities for conservation and recreational initiatives. The National Natural Landmarks program provides another mechanism for non-NPS managers and landowners, including those of other public as well as private lands, to receive recognition and formal designation for conserving significant natural features and

sites, expanding the array of tools available for landscape-scale conservation. For cultural and historic resources, an extensive set of partnership programs offer technical assistance, grants, tax incentives, and other kinds of support to help identify and preserve significant sites, features, districts, and landscapes. When evaluated within a landscape context, such cultural and historic resource partnership programs can be helpful in integrating cultural values into landscape-scale conservation efforts. NPS has also engaged in other landscape-scale conservation programs, for example through its collaborative participation in the National Heritage Areas program, regional conservation investments in places such as the Chesapeake Bay watershed, international collaboration at Glacier National Park in the Crown Managers Partnership, and collaborative conservation along units of the national trail system such as the 2,400-mile long Appalachian Trail. All told, NPS is equipped to effectively advance landscape conservation approaches and, with the coordinated support and agency-wide focus advanced by the Scaling Up community of practice, the agency is well positioned to assume a greater leadership role.

The importance of landscape-scale perspectives for NPS is clearly reiterated by the National Park Service Advisory Board Science Committee's report, *Revisiting Leopold: Resource Stewardship in the National Parks* (Colwell et al. 2012). The national park system and the programs of NPS should strive to "form the core of a national conservation land- and seascape" (Colwell et al. 2012: 11). Landscape connectivity is essential to ensure resilience and persistence of NPS resource values and "21st century conservation challenges require an expansion in the spatial, temporal, and social scales of resource stewardship" (Colwell et al. 2012: p. 13). As NPS celebrates its centennial year, the success of its mission and the conservation of nationally significant natural and cultural resources will depend on engaging partners at the landscape scale. To confront resource threats and challenges, NPS managers must recognize the interconnections between natural and cultural resources and their surrounding lands (Figure 1). Park managers and program staff must engage with landowners, agencies, and jurisdictions well beyond park boundaries to advance shared conservation goals. Finally, NPS can and must creatively apply the authorities, tools, and mechanisms available to "scale

Figure 1. Since 2002, NPS has been studying mountain lions in and around the Santa Monica Mountains near Los Angeles to determine how they survive in an increasingly fragmented and urbanized environment. Photo courtesy of Santa Monica Mountains National Recreation Area.



up” resource stewardship and landscape-scale conservation. As NPS embarks on its second century, to achieve its public service mission it is imperative for the agency to continue “scaling up” and embrace landscape-scale conservation.

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- Raymond M. Sauvajot**, National Park Service, 1849 C Street NW, Washington, DC 20240; ray_sauvajot@nps.gov