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Integrating Research and Resource Management in the National Parks

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BIOLOGICAL DIVERSITY: DISCOVERY, SCIENCE, AND MANAGEMENT

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Bioblitz science and outreach

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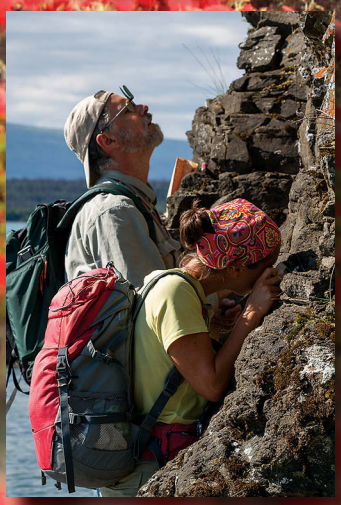

From the Editor

Seek, and you will find

THIS INSIGHTFUL MESSAGE HAS GUIDED PEOPLE ON LIFE'S JOURNEY for millennia, and more recently it has undoubtedly led visitors to national parks in search of restoration, health, and well-being. It is also relevant to the study of biological diversity, the theme of this issue of *Park Science* and a subject of great importance to the future of national parks.

All life-forms, from the smallest virus to the largest marine mammal, help define, regulate, and maintain park ecosystems. Understanding the functions of these organisms—the roles they play in the production of soils, provisioning of water, storage and recycling of nutrients, breakdown of pollution, and many other ecological services—is at the core of our task in the National Park Service to preserve parks unimpaired for the enjoyment of future generations.

The story of biodiversity in national parks is part discovery, part science, and part management, and we touch on all three areas in this issue. A series of articles describes the trend in parks to conduct activities devoted to the discovery of biodiversity. When we commit time and resources to the search for life, we find species that are new to parks and new to science, and we deepen our understanding of familiar species. How we manage the information that comes from this endeavor and incorporate it into park decision making is equally important and is also discussed in several articles.

Much of the science related to biodiversity study is the same today as it has been traditionally, though the pool of taxonomists we rely on to make identifications is shrinking. Additionally, our focus has shifted to invertebrates, nonvascular plants, and other less studied taxa and how we organize our fieldwork, subjects we explore in several articles. Techniques for collecting, processing, and documenting species and communicating about biodiversity are progressing with the help of academic and conservation partners and volunteers. Data analysis now makes it possible to predict locations for species of conservation interest, and synthetic biology has emerged as a means to create novel yet likely controversial alternatives to remedy species restoration and control problems.

In total we share more than 40 articles describing work to explore, understand, and integrate knowledge of biological diversity in national parks. I invite you to read the stories, weigh our progress, and contemplate next steps. You may even find something of value that you didn't know you were looking for.

—Jeff Selleck, Editor