

William R. Supernaugh

Box 65: Commentary from the GWS Office and our members

The Role of Inventory in Resource Stewardship

Parks are storehouses for natural diversity. We are stewards—of a wondrous collection of America’s biological heritage—but we often don’t know what is on the shelves.

Resource stewardship, that is, providing informed care for the varied resources contained within the parks entrusted to us by the American public, has been integral to our duties from the very earliest history of the National Park Service. The Organic Act calls for NPS to manage the parks so as to “conserve the scenery and the natural and historic objects and the wildlife therein....” Basic to this charge is the need to know what the elements of those “natural objects” and “wildlife” truly are.

As elementary as this sounds, the 1980 *State of the Parks Report* documented that few parks had even a preliminary inventory of basic resources, such as a vegetation map. Furthermore, there was no programmatic approach to collecting, storing, or displaying these data. A few parks were filling the information gap through efforts undertaken as part of research projects or, in a few cases, by means of direct inventories. Many, though, would never be able to complete these inventories due to a lack of staff expertise, funding, or outside interest. As a result, the Park Service, overall, lacked the ability to make resource management decisions based on sound scientific information. Even

where there was information on the species found within parks, an understanding of how species interact within the ecosystem was missing.

Long ago, Aldo Leopold cautioned that the art of intelligent tinkering is to keep all the pieces. NPS was guilty of tinkering without knowing what the parts were or how they fit together.

Wise stewardship requires planning, based on a knowledge of the resources being conserved. The resource management plan is at the heart of our efforts to define a park-based natural resource conservation program. But you can only develop plans to protect those things you have located and identified. Otherwise, their damage, loss, or extinction will go unnoticed. If you don’t know what you have, how can you protect it?

This deficiency was addressed in the *Threats Mitigation Report* and, later, in the *Vail Agenda*. However, progress has been glacially slow during the past two decades, though there have been remarkable exceptions. The all-taxa inventory undertaken at Great Smoky Mountains National Park stands out as an example of what a qualitative and quantitative search of a rich ecosystem is capable of

producing.

You might well ask, "How will this information be used, now and in the future?" Well, if you don't ask the question, rest assured that somebody out there beyond park boundaries will! Inventories of insect populations, including species presence, distribution, and life history, might well influence the establishment of a beneficial fire-use regime or the control of alien plant species through chemical or biological means. Many park fauna lists are developed not from field collections but from distribution maps published in field guides. We all know that such projections are fraught with inaccuracies. Floral inventories are similarly subject to gross assessments of readily accessible sites and charismatic plants. Climatological and seasonal variations in growing requirements ensure that plant inventories must be conducted repeatedly under a wide range of conditions and times in order to ensure the widest possible opportunity for the most accurate data collection. Once we have identified the key indicator species of our park's health, we can initiate a program of "vital signs" monitoring. Just as we have an annual check-up on our personal or physical system through monitoring of vital signs such as blood pressure, heart rate, tempera-

ture, and cholesterol levels, we believe it is possible to do something similar to this for park systems. Inventory data will help us decide *what* we eventually monitor.

The known presence of a high-interest species (not one which is just suspected of being present or is presumed to be absent) will, of necessity, strongly influence our management actions. Federally listed species, state-listed species, and locally rare species require specific management actions. The abundance and distribution of species and the relationships among species are key to our decision-making process. We have for too long gotten by on a minimal knowledge level. That is no longer acceptable, and in this litigious society—with the National Park Service increasingly found on the losing end of challenges to our decisions—we can neither defend nor afford to perpetuate our past practices.

The current initiative, the Natural Resource Challenge, has fortunately provided both an opportunity and a directive to move forward on several fronts. We are here today to initiate an exciting and much needed effort directed at an information deficit. I hope it comes in time for us to "save all the pieces" as we proceed with our intelligent tinkering.

William R. Supernaugh is superintendent at Badlands National Park. These remarks were originally delivered at the Northern Great Plains Inventory Scoping Session held at Rapid City, South Dakota, April 24, 2000.



Reminder: this column is open to all GWS members. We welcome lively, provocative, informed opinion on anything in the world of parks and protected areas. The submission guidelines are the same as for other GEORGE WRIGHT FORUM articles—please refer to the inside back cover of any issue. The views in “Box 65” are those of the author(s) and do not necessarily reflect the official position of The George Wright Society.