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Box 65: Commentary from the GWS office and our members

Using Numbers that Count: Information or Revelation?

You may recall the classic fable of the blind men and the elephant. Once, in a place inhabited by curious blind men and elephants, there was a group of blind men who knew nothing about these animals. The blind men went to a spot that elephants inhabit to learn first-hand what this large beast was like. As the men were directed to the place, they each came to the spot where an elephant stood, approaching from different directions. They explored the elephant with their hands and then began to discuss the nature of the beast.

One blind man said it was like a *tree*—cylindrical, widening as it met the ground, with a rough bark. The second man described it as being more like a *rope* than a tree. The third man said it reminded him of a *snake*—muscular and able to wrap itself around his arm. The fourth man thought he was with a bunch of fools, for he felt its great side from top to bottom, saying it was like a *wall.* The last man had listened carefully to the others, but described the elephant as a large *sheet of leather* because as he felt along its long, thin edge, it quivered.

The last man continued, "Each of you has experienced a beast that differs greatly from what I have found to be true. I propose that none of us has been mistaken in his observations, but rather that we have experienced different aspects of the same great beast. By combining our perceptions, we may be able to come to a better understanding of the essence of the elephant. I would propose that we share our research with each other so as to gain an understanding of the true nature of the elephant."

So, they each published an article on the elephant in respected journals of elephantology. They read each other's papers (with their digital audio readers), corresponded and shared their part of the elephant with each other. Eventually they came to understand that an elephant is like a tree (its feet), a rope (its tail), a snake (its trunk), a wall (its sides), a large sheet of leather (its ears), and many other things as well.

This fable has wisdom often forgotten. Pick a park or protected area. Do we describe it as being like a tree or a rope? Or do we strive to convey its collective, complex whole? Do we ever try to describe it holistically at all?

How we present numbers often has everything to do with our success (or failure) to achieve resource con-

servation goals. Too often we stop at the elephant's ear or foot. That research and shared information is important—critical to our understanding of the beast. But too often we stop there. It takes an entirely different process to connect the dots and portray the whole, and few (if any) people are given that task. Too often we don't convey the information comprehensively and tell it in a story that is meaningful to the public.

Telling the story is oftentimes the critical element coming out of research. For example, suppose I ask you, "What do I need to make orange juice?" You answer, " A quart of water and a can of frozen orange concentrate." Technically you're correct, but you haven't helped me to see the larger picture. A more informative answer to this question would be, "Two quarts of gasoline and a thousand quarts of water are required to produce one quart of Florida orange juice." This statistic is as correct as the first, but now you've got an opportunity to do some real education that is meaningful, connecting the parts of the systems responsible to produce your morning glass of juice.

Researchers and the number-crunchers among us would do well to find and dust off a copy of Freeman Tilden's classic book, *Interpreting Our Heritage*, published in 1957 but just as relevant today as ever. Contrary to popular thought, it is not just for interpreters and naturalists. It should be required reading for researchers as well. All of his six principles are relevant to researchers, but his second principle stresses the important distinction between information and interpretation. Interpretation uses information to generate revelation. It is my contention that there's far too much information and too little revelation within the realms in which we dwell.

Don't get me wrong. Oftentimes information — and information only — is needed. There is the need for technical information strictly for the purpose of informing resource managers. That's legitimate, and publishing in respected journals of elephantology is critical to the evolution of our understanding. But unfortunately, too many times it ends there, prematurely. It stops with that one audience when its implications are also pertinent to wider audiences, such as the public. And in doing so, we miss the opportunity to discuss the relevancy of the findings with the very publics whose support is critical to our stewardship efforts.

There have been notable accomplishments for packaging scattered information to reveal a story. The National Park Service's 1980 "State of the Parks" report to Congress is one example. It was the first Servicewide survey designed to identify and characterize threats that endanger park resources. Its discovery of 4,343 internal and external threats was extremely helpful in providing a context in which we came to learn considerably more about the perils facing parks. Unfortunately, further threat assessments such as

this one have not been conducted.

Similarly, Parks Canada's efforts to assess "ecological integrity" in their national parks, based upon resource indicators, has received wide media coverage. Among other things, they discovered that only one of their 38 national parks was found to be in pristine condition, while 31 reported "significant to severe" ecological stresses; in 13 parks these stresses had increased in intensity since 1992. These findings were in part responsible for a government-appointed panel of ecological experts (the Panel on the Ecological Integrity of Canada's National Parks) to later conclude that, "ecological integrity in our national parks is in peril." It told a compelling story greater than any one resource or any one park that has key decision-makers sitting up and taking notice.

Other attempts at packaging data for a larger educational purpose are encouraging. Yellowstone published its "State of Yellowstone National Park" report in 1999, providing tremendous background in understanding the park. Similarly, the National Parks Conservation Association has begun a national effort to assess cultural and natural resource conditions in 40 or more park units. Assessments for Adams National Historical Park and Point Reyes National Seashore have been released, while those for Rocky Mountain National Park and Waterton-Glacier International Peace Park are due out soon. It is hoped, by pulling together existing information across the spectrum of park resources, a story emerges which can help the public and decision-makers better understand the critical needs of a park's resources. By then comparing much of the same information across parks, another important story emerges depicting the needs of the system.

Using numbers to convey a story is not confined to resource research. Even the National Park Service's accountants and budget offices have begun to repackage existing numbers in a way that communicates to the public a greater message than before. The Business Plan Initiative of the National Park Service, conducted in partnership with the National Parks Conservation Association and many of the nation's leading business schools, is working in individual parks to un-bundle numbers from their traditional esoteric constraints, and repackage that information to better convey a sense of how public monies are being spent, where the shortfalls exist, and how large they are. Forty parks now have developed business plans. Armed with that understanding and fresh perspective, the public and Congress may be motivated to address the critical shortfalls that exist.

These attempts may be seen as a blend of science and information with art. While the efforts are steeped in science and information, how the pieces of information are woven together to create a tapestry in which the patterns emerge—that is, the story that reveals important understandings for the park—is an art per-

haps no less important than the pursuit of obtaining the resource information. For resource protection to advance, the marriage of information with revelation needs to be joined.

There are almost an infinite number of ways to create this marriage. One of the recent innovative strategies in the U.S. National Park System is the creation of Learning Centers, which are being advanced through the Natural Resource Challenge and operated as a public–private partnership. These centers will support research activities for all park resources, synthesize information, and transmit that understanding to the public with the help of an education specialist, working with park interpreters and partners. Five initial learning centers are now funded and, if funding goals are realized, the hope is to create a system of 32 learning centers by 2005.

Such an approach implicitly acknowledges what protected areas around the globe have learned: parks and preserves need to do a better job at communicating their relevance to the values of their publics. This is, no doubt, a considerable challenge in a world bombarded by advertising, mass communications, and a decline in civic participation. Yet, because of the public's relatively high interest in these special places, and the many forms in which that message can be packaged and transmitted, there are great expectations that it can be done.

Thus, the George Wright Society has the twin mission that is essential for resource stewardship: research *and* education. With information conveyed in a way that reveals the whole, rather than its parts, we can come to portray this elephant more accurately. In so doing, we'll advance public understanding and park resource protection.

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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.