

Compensation Issues in Natural Resource Professions

Whitaker (*Conservation Biology* 17: 330–333) raises important points on the extensive use of volunteer and intern positions by natural resources agencies. These issues are serious and need to be addressed at higher levels of society than the ranks of natural resource professionals.

The following are a few related issues. Adequate money is often available for hiring personnel for projects, but many agencies, especially government agencies, are limited in their hiring ability because of legislative mandates placing ceilings on numbers of full-time equivalents or monetary-expenditure caps on personnel budgets. For these reasons and because of labor laws, agencies are limited to hiring personnel either by contract or as temporary employees (less than full time, less than 12 months). This means agencies are not required to provide other benefits such as medical insurance and unemployment compensation. Generally, temporary employees are covered by workmen's compensation, but contractors are not. Employees are not only under-compensated but are also at risk.

Students and younger professionals must realize that these compensation problems are not limited to interns and volunteers. Many salaried professionals effectively earn less than minimum wage because the demands of their positions require them to work many hours outside the normal 40-hour work week.

I use myself as a typical example. By the time I have completed my primary duties (research coordination, supervision, customer service, data analysis), I have generally filled 40 hours and often more in a given week. This means that the necessary literature review, report

and scholarly writing, continuing education, attendance of conferences, and professional service activities I undertake fall outside the 40-hour week. Based on hours spent meeting my professional obligations, I rarely make above minimum wage.

Additionally, each year I have receipts for \$3–4,000 of unreimbursed work expenses. This includes memberships, journal subscriptions, books, meals, lodging, and miscellaneous items I purchase for which I cannot be reimbursed.

I point out these aspects of a career in natural resources not to excuse the way intern and volunteer positions are used but to show that salaried professionals are no better off. The root of the problem is that natural resource programs are not considered important enough by the public to merit professional compensation. Therefore, we need to improve the situation for everyone, and young professionals need to understand that it doesn't get much better.

The fact that we have a cadre of natural resource professionals on the job is testimonial to the dedication of our workforce to natural resources, science, and public service. This dedication needs to continue, and the incoming generation of professionals needs to uphold this. This means that natural resource professionals of the future may need to sacrifice as much as those of the present and past.

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World Wide Web Buzz about Biodiversity

The concept of biological diversity (usually shortened to biodiversity since Wilson 1988) has fundamentally reshaped conservation world-

wide since its original definition (Norse & McManus 1980) and re-definition (Norse et al. 1986). Norse (1996) and Farnham (2002) trace its evolution and its influence on conservation. But what is its influence on global culture today?

Perhaps the best way to gauge biodiversity's "market penetration" is to examine its use on the World Wide Web. We used <http://www.googleflight.com> on 19 August 2003 to determine how many World Wide Web sites mention biodiversity, along with some other scientific concepts and sciences, as well as some icons of popular culture that provide comparative indicators of "buzz." We searched all compound terms in quotation marks (e.g., "climate change") to preclude inflated counts of sites that mention either or both of the common terms "climate" and "change," but not "climate change."

There are intriguing implications of our findings for conservation biology. Biodiversity is mentioned (3,100,000 mentions) on more web sites than scientific concepts or sciences such as molecular biology (1,550,000), climate change (1,460,000), or oceanography (624,000), and, more remarkably, more than popular cultural markers including the Beatles (2,800,000), George W. Bush (2,580,000), Tiger Woods (664,000), or Arnold Schwarzenegger (495,000). Although it could be argued that relativity (917,000) was the most powerful scientific idea from the twentieth century, biological diversity is now cited more than thrice as often.

As the diversity of the world's genes, species, and ecosystems declines, it is all too easy for conservation biologists to become discouraged, to think that nobody is listening to us. A simple, verifiable, quantitative measure of "buzz" concerning biodiversity and other terms on the Web suggests that conservation

of biodiversity generates far more worldwide interest than might be generally thought and that a scientific idea can achieve cultural prominence even greater than the politicians, entertainers, and sports figures who dominate the airwaves and newspapers. Given the phenomenal growth of the Web and rapid changes in peoples' interests, it would be interesting to review these numbers in years to come.

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Social Scientists and Conservation Biologists Join Forces

In response to Mascia et al.'s editorial "Conservation and the Social Sciences" in the June 2003 *Conservation Biology*, I am pleased to announce that the Society for Conservation Biology (SCB) is working to meet the challenges set forth therein.

In association with Peter Brosius (one of the editorial's authors) and others, the SCB is developing some foundational initiatives under the auspices of the Social Science Working Group (SSWG). The goal is to advance the role of the social sciences in both the SCB and the conservation community at large. We plan to launch a new website to collect information and resources (www.conservationbiology.org/SSWG/) and have established an email discussion list (sswg@list.conbio.org;

see <http://list.conbio.org/mailman/listinfo/sswg/> for more information and to join) to keep interested parties apprised. I am also happy to report that several very competitive social science symposia are proposed for the annual meeting in New York City in 2004 and more are in development for the annual meeting in Brasilia in 2005. Finally, although the dialogue with sister societies in social sciences is just beginning, I am optimistic there will be many opportunities to promote cross-disciplinary communication, learning, and collaboration with these organizations.

In a world increasingly dominated by humans and influenced by human interactions with each other and the environment, conservation biology must meet complex challenges with our social science colleagues as close allies; their expertise and experience should inform all conservation actions. We thank our colleagues in the social sciences for reminding us of the importance of a holistic approach to conserving biological diversity.

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