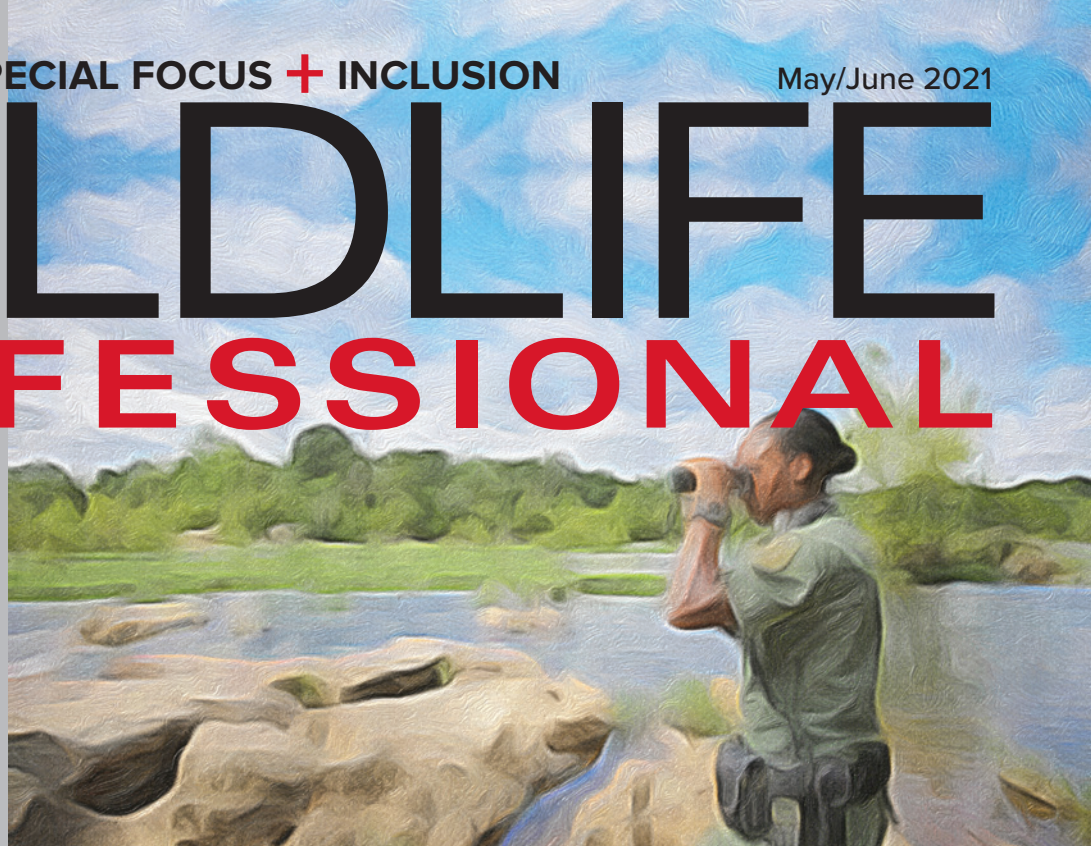
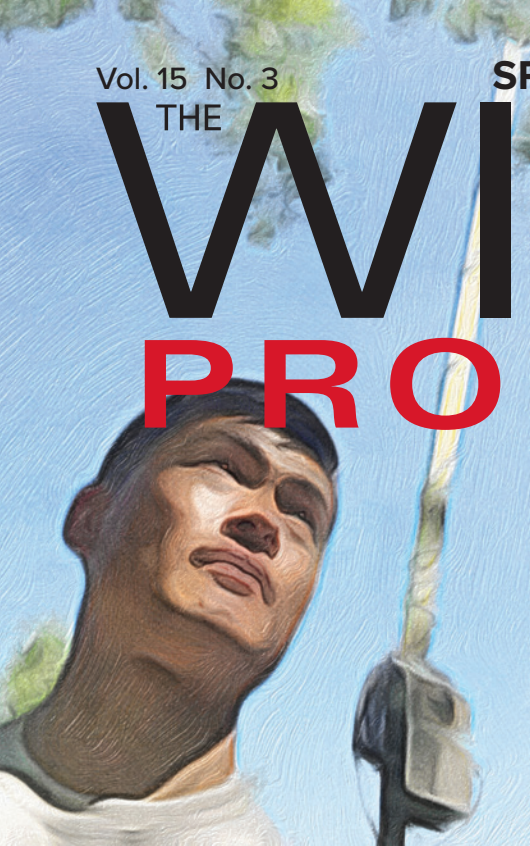


Vol. 15 No. 3

SPECIAL FOCUS + INCLUSION

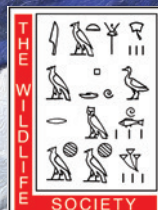
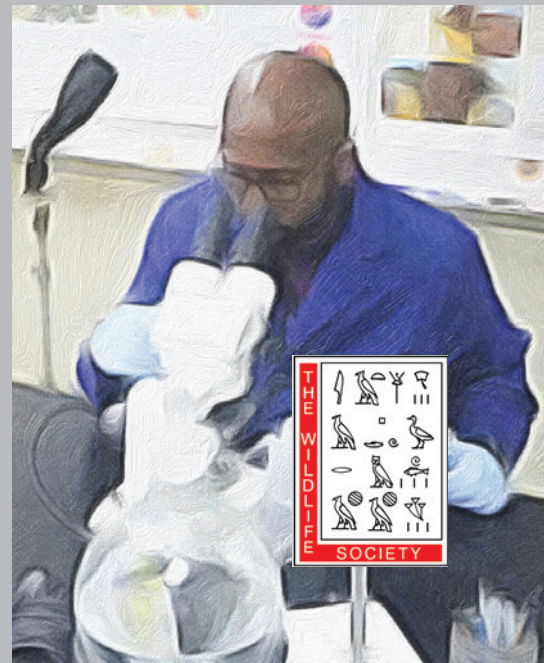
May/June 2021

THE WILDLIFE PROFESSIONAL



Diversity in the Field

The push for diversity,
equity and inclusion in
the wildlife profession





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Participation Equals Conservation

WHY DIVERSITY MATTERS IN SUSTAINING OUR NATURAL RESOURCES

By Roel Lopez, Columbus Brown and Angelica Lopez

In 2011, we wrote an [article](#) for The Wildlife Professional describing the importance of diversity in sustaining our natural resources. Many significant events have occurred since then, including recent attention and support for movements like Black Lives Matter and #MeToo. Within this context, we asked two questions: What progress have we made over the last 10 years within the wildlife profession? And what are some next steps?

Natural resource professionals understand the value of diversity. Ten years ago, our article described why cultural diversity within our profession mattered. We live in a world where change is natural, and our society and profession continue to evolve. According to [2019 American Community Survey](#) estimates, the United States has about 328 million people, half of whom are women. Nearly all but two population groups — Black Americans and whites — are growing. Individuals of two or more races comprise the group expanding at the fastest rate, although it is important to note that many who now identify as multiracial would have been classified as Black or African American earlier. Hispanics make up 18.4% of the population, a segment that continues to grow. Asians make up 5.7% of the population, a segment that is also on the rise. Black Americans are holding steady at 12.8%. Whites, at 72%, are declining. Although they will comprise the largest group over the next 40 years ([Vespa et al. 2020](#)), they are projected to no longer make up the majority of the U.S. population by 2045.

This picture of the U.S. population is in sharp contrast to the scientific community. College graduates working in fields related to science, technology, engineering and math — the STEM professions — are 71% male and 65% white. Asian Americans at 20%, are the only ethnic minority for STEM professions in double digits. African-Americans, Hispanics and other groups are below 8% ([National Science Foundation 2019](#)).

Having a broad, representative stakeholder base facilitates conservation and the sustainable use of natural resources following the North American Model ([Cuker 2001](#)). Yet we are not any closer today

◀ Behind the Gates events at the East Foundation in Texas allow schoolchildren from diverse backgrounds to explore nature and learn about wildlife stewardship. Introducing grade-school children to nature and the wildlife profession can be a good way to help ensure diversity in our profession in the future.



Credit: Masi Mejia/East Foundation



than we were 10 years ago to having both our profession and natural resource student bodies mirror the cultural diversity of the general population.

As ecologists, we recognize the value of ecosystem biodiversity. By reason then, as natural resource professionals, we also must recognize the value of workforce diversity and its role in sustaining our natural resources. But for what purpose? Ecologists will respond, “because it is right.” Pragmatists would say, “because we want to be relevant.”

Our profession's current path is not sustainable.

The economic equation

Population shifts redefine needs. It is still relevant to view the challenge of changing demographics in our field through an economic lens, as we did in our article 10 years ago. However, we have an opportunity to address these changes with emerging knowledge and tools. Natural resources are commodities with global and local uses and vulnerabilities.

The economic equation is simple: *participation = conservation*. It was true 10 years ago, it is still applicable today and it will continue to be in the future. For the most part, markets depend on this trend. If we consider trends in outdoor recreation participation, we find that there is a shift toward nontraditional, non-consumptive uses, and underrepresented group participation is still lagging (USFWS 2016). As a profession, how can we remain relevant to underrepresented groups if we are not visible? Were it not for the dire state of our natural resources and highly publicized natural disasters, how else would minorities know or care that we exist if relatively few are enjoying the resources we steward?

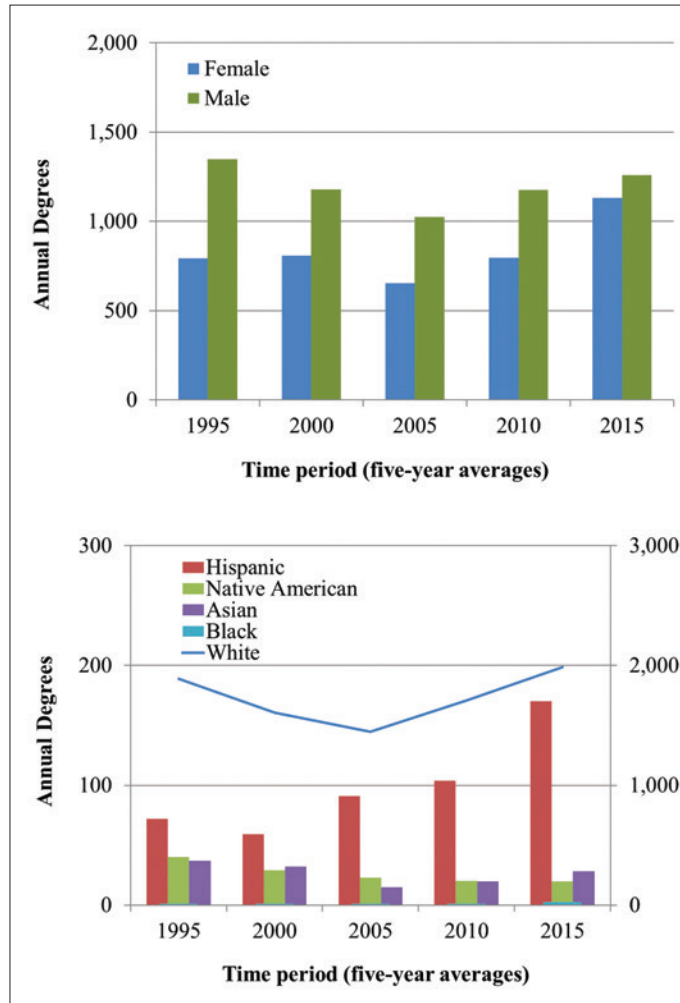
One of the Civil Rights Act's key attributes lost in time is the notion of access. We must examine the accessibility of our natural resources in a broad sense — including the sense of inclusiveness, safety and a welcoming atmosphere — towards underrepresented groups, as it is now crucially associated with our profession's relevancy. Garnering sup-

port and personal commitment from emerging stakeholders remains crucial to sustainable natural resource conservation. “Buying power” today is equivalent to participation by people of all races, ethnicities, cultures, abilities, ages and genders as a “deposit” into our future.

How are we doing?

Charting our way forward requires that our profession take stock of where we are. Since our last article — and based on the same measures — our statistics suggest limited progress.

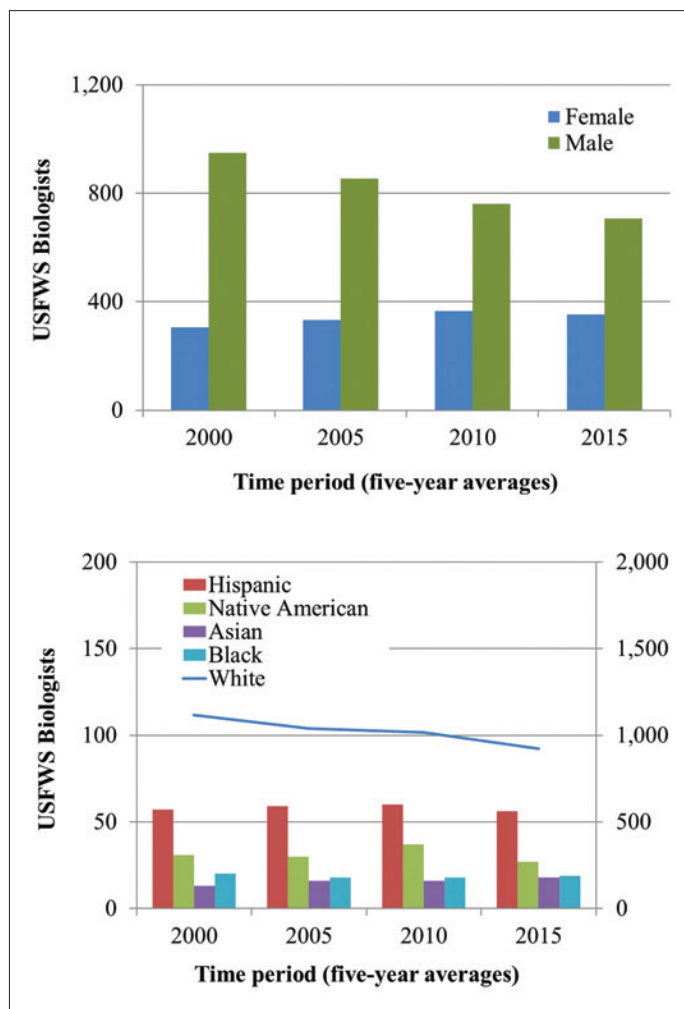
We updated data for two common metrics of diversity — gender and ethnicity — to determine our profession's progress in engaging historically underrepresented or disengaged stakeholders (Lopez and Brown 2011). In our review of data for the last 30 years, the agency workforce profile, TWS



◀ These graphs show conferred annual college degrees in natural resource and wildlife fields by gender and ethnicity, according to 2020 National Science Foundation data. Note the dual y-axis graphs for historically underrepresented groups (bars, left axis) and whites (line, right axis).



► These graphs show gender and ethnic breakdowns for the U.S. Fish and Wildlife Service wildlife biologists, according to 2020 USFWS data. Note the dual y-axis graphs for historically underrepresented groups (bars, left axis) and whites (line, right axis).



membership and undergraduate degrees — the “supply” for the wildlife profession workforce — some sobering patterns emerged.

Recruitment of women is one of several key areas in need of improvement within our profession. However, the lagging recruitment of minorities and their retention underscores the breadth of the diversity challenge. Although the percentage of women earning bachelor’s degrees in natural resources fields has surpassed men, a significant salary disparity has persisted for the past 10 years for women, regardless of race or education ([U.S. Department of Labor 2020](#)). Agency workforce profiles show a modest change in workforce representation and a continued need for increased racial and ethnic diversity. Within The Wildlife Society’s self-reported membership data, 58% of members are men. The vast majority (92%) identify as Caucasian. The bottom line is this:

we are lagging to increase participation of minority stakeholder groups, diversify our market share and invest in our future.

This is not to say we have not taken some positive steps to encourage diversity through internships, mentoring programs and other initiatives. Consider the work within TWS. Ten years ago, the current deliberative efforts and targeted diversity support [programs](#) were nearly nonexistent. That has changed for the better, and it will pay dividends in the near future and over the long term.

Throughout TWS’ chapters and sections and the broader wildlife profession, other deliberative efforts to diversify recruitment efforts and retain a diverse professional workforce are underway — for example, TWS’ Southeast Section and the South-eastern Association of Fish and Wildlife Agencies Minorities in the Natural Resources Committee.

Many programs implemented now involve multiyear processes and will not bear fruit for several years. To remain encouraged, progress should be viewed and measured as cohort processes. It takes time to mentor and prepare students, who then mature into professionals. The positive seeds we plant now will bear much fruit in the future.

Is there room for improvement? Absolutely. Here are some things we can do.

Address the pipeline

When referring to diverse populations and recruitment, we sometimes fall back on the myth of a limited pool of qualified candidates, potential stakeholders and future employees. We simply aren’t effectively tapping into all available resources, and we aren’t making all resources accessible to everyone. Our profession must find creative ways to engage minority individuals while they are young, preferably in grade school, rather than wait until they have already chosen their career paths.

Consider the efforts of the East Foundation’s [Behind the Gates](#) program, which introduces 8th and 9th grade South Texas Latino students and their teachers to natural resource and land



stewardship concepts and to potential career paths. The East Foundation's program eliminates economic barriers in its delivery, which is particularly important when targeting underrepresented groups. In the wildlife profession, similar efforts will require a long-term strategy. We'll need to work in partnership not only with well-established wildlife programs in major colleges and universities but also with Cooperative Wildlife Research Units, historically Black colleges and universities, Hispanic-serving institutions, Tribal colleges, community colleges and other institutions that serve historically underrepresented groups.

A business-as-usual approach will not produce remarkable results, and new communication tools, such as social network groups and apps that generate excitement, educate and inform about the wildlife profession may be avenues for change. New and broadened participation will positively impact conservation.

Increase career awareness

We often hear that knowledge is power. The wildlife profession is invisible to many, so it often is not recommended as a viable career choice among the groups we are trying to reach, particularly in urban environments. We target outreach groups out of convenience following a least-resistance model. By doing so, we diminish our future return on investment.

If we want to reach a different audience, we must specifically target and become relevant to that group. We need to engage in a meaningful, positive, caring, long-term manner. To some degree, as a profession we have disengaged ourselves, offering few role models in local communities and on national media. Over the last 10 years, we perhaps did not market our profession to underrepresented communities in the best possible way, despite a public shift toward environmentalism.

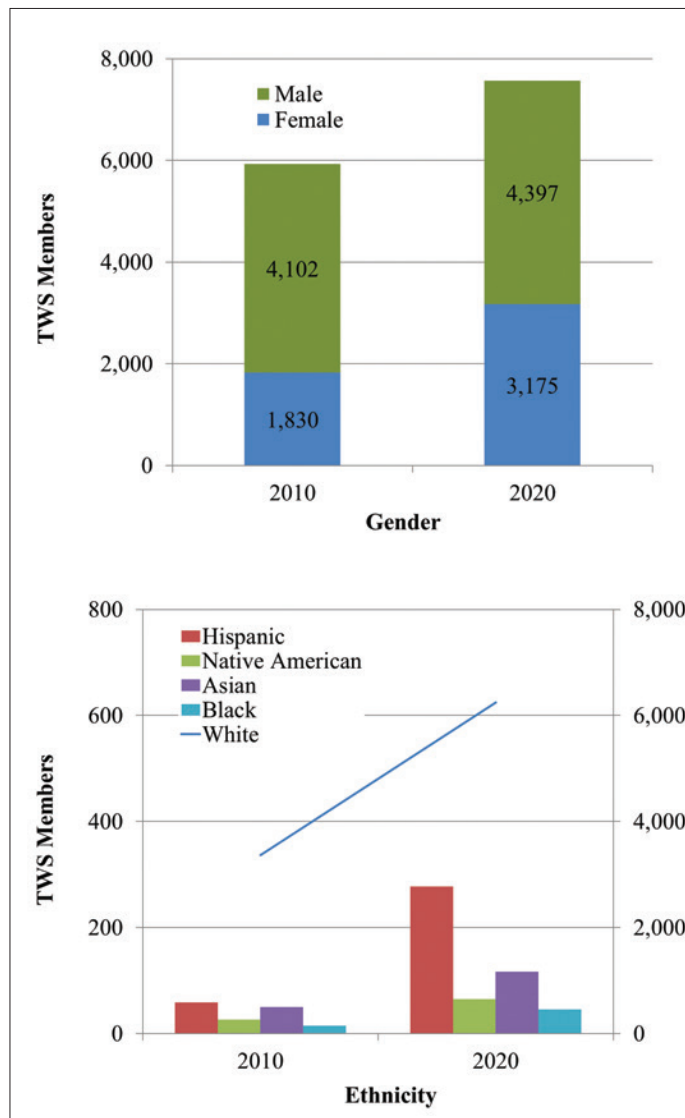
There is an opportunity to change course, by placing new hires in areas where they can serve as role models and make diversity outreach a standard part of the job description. Members of younger generations want careers that use technology, make a

difference and provide opportunities for growth. We must show how these goals are achievable in the wildlife profession.

Capitalize on environmentalism

Public awareness of environmental and natural resource challenges continues with news about climate change, pollinator declines, oil spills, invasive species and the like. Yet the messages are confounded with conflicting messages. It is vital that we seize the moment, expanding on the growing environmental ethic by linking it to careers in wildlife management and conservation.

Critical to this effort is collaboration with colleges, agencies and organizations engaging in programs



◀ These graphs show self-reported TWS membership data by gender and ethnicity, according to 2020 TWS data. Note the dual y-axis graphs for historically underrepresented groups (bars, left axis) and whites (line, right axis).



Credit: Masi Mejia/East Foundation

▲ Reaching out to students in grade school can help create a pipeline of diverse wildlife professionals in the future. Here, students participating in East Foundation's field lessons learn about small mammal trapping and monitoring.

that are already achieving some success, such as the Student Conservation Association or the Student Career Experience Program.

In addition to formal programs, nonconsumptive activities also are gaining traction, such as wildlife watching and photography. These can be viable approaches to garnering local community support, group participation and a beginning process to long-term engagement.

Train our own

Diversity in the workforce is often broadened to include global diversity through the hiring of individuals from all nations. However, for effective natural resource management in North America, we believe the primary focus should be on diversifying our domestic workforce from within and reaffirming the dream of the civil rights era.

Women and individuals from minority and other traditionally underrepresented groups must be recruited in order to remain competitive and relevant during times when the scope and nature of these professions are changing so rapidly (Brown and Duffie 2006). We should work with career counselors and teachers to develop relationships with “gatekeepers” at local institutions, informing them of the needs, abilities and ambitions of underrepresented students so they will encourage — rather than dissuade — students from pursuing their goals.

Sweat equity goes a long way towards investing in the future of individuals and natural resources.

Emerging technology

We briefly discussed access as a key equalizer. Technology can play a pivotal role in taking natural resources to the homes of individuals.

Technology has proven a valuable necessity in these uncertain times. Eighty-two percent of households have internet access (Census 2019), and many youth have access to mobile phones and apps. These numbers continue to rise with more people working and studying from home during the COVID-19 pandemic.

By expanding on virtual recreational opportunities, such as live webcams and group livestreams, and by creating new experiences for varied audiences, we can reach emerging stakeholders, particularly youth. These programs can also help us become more visible and relevant in their world. At the very least, they can introduce young people to an aspect of natural resources.

During this pandemic, social media programming expanded. While educators struggled in some cases to make sure their students had adequate access to technology, social media may develop into a tool for engaging typically hard-to-reach audiences and for breaking down participation barriers associated with economic disparities. Emerging technologies may also allow for those with special needs to experience nature in ways not previously available.

Staying on board

All of the above recruitment efforts would be meaningless if minority employees and stakeholders are not retained after they enter the profession.

Unfortunately, cultural norms, attitudes and beliefs within some arms of the wildlife profession may deter the retention of minorities and women. Likewise, different ethnic groups may have their own biases against the wildlife profession, due perhaps to a lack of role models or negative past experiences with game wardens, for example, discouraging some from choosing a career in this area.

Awareness of both sides of the equation will allow employers to promote a positive, culturally respectful work environment, with opportunities for meaningful dialogue between diverse groups. By offering supportive mentors who are culturally literate, sensitive to the needs of new recruits and advocates on their behalf, and by providing mean-



ingful opportunities for advancement, employers will go a long way toward increasing diversity.

A matter of survival

Ultimately, the success of any diversity strategy hinges on our willingness to evolve as a profession. Reviewing our progress since the 2011 article, we see that our professional community needs to do a much better job. We have made some progress in some areas, particularly recruiting and retaining women, but other areas have had fewer successes.

The future of natural resources increasingly is tied to minority stakeholders and their engagement (Floyd 1999, Taylor 2002). "It is not necessary to change," wrote W. Edwards Deming, a 20th-century thinker known for his subtle humor who taught corporations how to adapt and prosper in changing times. "Survival is not mandatory."

We face a simple truth: Unless we diversify our ranks and become more representative of changing demographics, our profession and the resources we protect will not survive. This reality does not hinge on a philosophical debate about whether achieving diversity

is the *right* thing to do. It's simply the *smart* thing to do. And it's consistent with the premise of the North American Model — to conserve our diverse natural resources for the benefit of all. ■



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