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# **Passing the Torch of Wildlife and Fisheries Management Comparing the Attitudes and Values of Younger and Older Conservation Professionals**

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Wildlife-related values in American society are undergoing considerable change. Within the last few decades, non-consumptive recreational use of wildlife has increased dramatically; groups that subscribe to animal protection values (ranging from animal welfare to animal rights to animal liberation) are exercising increasing influence over wildlife policy, and the ranks of people who practice wildlife rehabilitation have grown significantly. In this time of questioning and change, it should not be surprising that the attitudes and values of conservation professionals are in transition as well. Within many agencies and academic institutions, the traditional focus on game management (Geist et al. 2001) is giving way to an emphasis on biodiversity conservation, endangered species protection and ecosystem approaches to management. Changing professional values are reflected, to varying degrees, in changing curricula offered by academic departments in colleges and universities (Organ and Fritzell 2000) and in the changing management strategies of conservation organizations—non-governmental as well as state and federal agencies. Within many organizations and agencies,

employees with more traditional-value perspectives often work alongside employees who possess non-traditional values, sometimes in an uneasy state of co-existence.

Managing the professional workforce is always a challenge. On the one hand, it is important for agencies to adapt to changes in a broad social and political environment. On the other hand, it is also important to be careful not to jeopardize their relationships with traditional constituencies that provide important political or financial support (Dizard and Muth 2001). The need to walk a fine line in changing an agency's policy direction dictates that agency leaders proceed cautiously, often in a trial-and-error process with small, incremental changes (Lindblom 1959). Changing the culture and organizational structure of an agency to be more responsive to changing legislative direction or sociopolitical values often necessitates hiring employees characterized by new kinds of professional or disciplinary expertise and associated values (Meyer and Rowan 1977). However, integrating new employees that possess non-traditional values into a traditional organizational culture can pose serious problems. When values conflict, socializing new employees into the organization can be problematic if the new employees find it difficult to support the agency's traditional policies, missions and programs.

The example of the US Forest Service is instructive. In the 1950s, the Forest Service, despite being a highly decentralized organization, was extremely cohesive in terms of organizational culture and in terms of making decisions that were consistent with the agency's mission. Staffed largely by professionally trained foresters, professional values were relatively homogeneous (Kaufman 1960). However, as broader societal values became more environmentally oriented in the 1960s and 1970s, changes in the legislative mandate of the Forest Service necessitated a shift in the agency's mission, programs, planning and administrative procedures. In adapting to new laws, regulations and public values, the Forest Service recruited new disciplines (e.g., wildlife and fisheries biologists, landscape architects, economists, sociologists) into the organization, and these professional values gradually became institutionalized, albeit oftentimes not without considerable organizational (and employee) stress. Forest Service wildlife biologists, for example, often found themselves in conflict over whether to support the values of their wildlife professional subculture (protect and enhance wildlife species and their habitats), or to support the cultural values of the Forest Service (emphasize meeting timber harvest goals). Organizations can quickly become

dysfunctional when the traditional values of an organization collide with the values of new employees that oppose the agency's traditional culture.

Managing the professional workforce is bound to become more challenging as conservation organizations recruit new people or promote younger people to middle and upper management. The management challenge will be magnified if people entering the profession have different sociodemographic backgrounds (e.g., urban versus suburban upbringing, ethnic minorities, women, lack of experience in hunting, trapping or fishing), or have graduated from academic programs (e.g., environmental science, botany, human dimensions) that differ from traditional wildlife and fisheries curricula. In many cases, these newcomers may bring with them a set of personal or professional values that are at odds with the traditional values and culture of many resource management agencies.

Issues of organizational stability and change may become more problematic in the near future. As the leading edge of the baby-boom generation of resource managers, policy makers and academicians enters retirement, conservation organizations are facing the prospect of losing from one-quarter to one-half of their workforce in the next five years. These positions increasingly will be filled by younger professionals characterized by attitudes, values and sociodemographic backgrounds that may be markedly different from those of their older counterparts. To minimize organizational conflicts, agency administrators need to start thinking about how to proactively integrate large numbers of younger employees into the ranks of conservation organizations.

## **Methods**

To compare the attitudes and values of younger conservation professionals to those of their elders, we sent a mail-back questionnaire in 1998 to a stratified, random sample of 1,000 members of each of the following four professional societies: The Wildlife Society, American Fisheries Society, Society for Conservation Biology and the North American Wildlife Enforcement Officers' Association. The questionnaire consisted of 119 questions related to management philosophy, ethical considerations, sociocultural factors, specific management practices, selected wildlife and fish harvest activities and uses, and sociodemographic characteristics (Muth et al. 1998). Of the 4,000 questionnaires originally mailed, 3,127 usable

questionnaires were returned. After accounting for non-deliverables, the response rate was 81 percent.

## Results and Discussion

### *Analytical Methods*

One objective of this research was to examine the relationship between age and the attitudes, values and sociodemographic backgrounds of respondents. To achieve this, respondents were grouped into three age-based categories. The youngest age group was comprised of respondents under the age of 34; a middle group contained people whose ages ranged from 34 to 48, and the oldest group consisted of those respondents 49 or older. These age groups were then cross tabulated with selected sociodemographic variables to develop an age-based profile of the respondents.

These three age-group categories were also used as an independent variable to explore the relationship between age and selected attitudes and values. For the dependent variables, we used several questionnaire items that were framed in a five-point Likert-scale format, ranging from strongly agree (1) to strongly disagree (5). These questions measured respondents' views about management of fish and wildlife resources (four questions), their ethical considerations regarding harvest activities (seven questions) and sociocultural values (two questions). Using the collapsed age-groups as the independent variable, these 13 dependent variables were analyzed using one-way analysis of variance (ANOVA). Three additional questions were asked about whether or not to outlaw specific wildlife harvest activities, for example, the use of dogs to hunt back bears (*Ursus americanus*), the use of dogs to hunt upland game birds and the use of leghold traps to trap furbearer species. These questions were measured using responses of yes = 1, no = 2, and no opinion = 3. The relationships between the age of respondents and their responses to these questions were analyzed using chi-square analysis.

When interpreting the results, readers are reminded that statistical significance does not necessarily equate to sociological significance. Although statistically significant differences are often detected between the responses of the different age groups, in many cases the differences in their mean responses are very slight. In these cases, mean responses may reflect differences in degree (i.e., slight differences in level of agreement), rather than in magnitude (i.e.,

strong differences in levels of agreement versus disagreement). Differences in the overall pattern of responses between groups may, in fact, be more important than statistically significant differences in the responses to any one question.

### ***Profile of Respondents***

Differences were observed between respondents of different ages in terms of where they lived during childhood (Table 1). Approximately 43 percent of the youngest and middle age groups grew up in either a rural area or a town with 10,000 population or less, whereas 57.5 percent of the older age group lived in a rural area or town. In contrast, about 25 percent of the younger age group lived in a small city of 10,001 to 50,000 population while growing up, compared with 21.9 percent and 17.4 percent of the middle age group and older age group, respectively. Approximately 32.2 percent of the younger age group and 35 percent of the middle age group lived as a child in a medium or large city; only 25.2 percent of those over the age of 48 grew up in such an environment. A similar pattern of differences was detected among the three age groups when asked to describe the type of area where they currently reside (Table 2).

Table 1. Type of area in which respondent lived most of childhood, by age group, in percentage.

Type of area lived during childhood	Age group		
	< 34 Years	34-48 Years	> 48 Years
Rural area or town (< 10,001 population)	43.6	43.2	57.5
Small city (10,001-50,000 population)	24.2	21.9	17.4
Medium or large city (> 50,000 population)	32.2	35.0	25.2
Chi square df=4= 45.86, p < 0.00.	100.0	100.0	100.0
	n=795	n=1,569	n=702

Table 2. Type of area in which respondent currently lives, by age group, in percentage.

Type of area in which the respondent lives	Age group		
	< 34 Years	34-48 Years	> 48 Years
Rural area or Town (< 10,001 population)	36.1	45.1	46.9
Small city (10,001-50,000 population)	25.6	21.0	20.0
Medium or Large city (> 50,000 population)	38.2	33.9	33.0
Chi square df=4= 23.26, p < 0.00.	100.0	100.0	100.0
	n=792	n=1,581	n=714

Although differences were detected in terms of the highest levels of education achieved by people in the three age categories, respondents are highly educated relative to the educational levels of their society. The older age group reported the highest percentage of graduate or advanced professional (e.g., law, veterinary medicine) degrees as well as the highest percentage of respondents with less than a four-year college degree. The younger age group reported the lowest percentage of less than a four-year degree, the lowest percentage of graduate (or advanced professional) degrees and the highest percentage having a four-year degree as their highest level of education (Table 3). Not unexpectedly, respondents in the youngest age group contained the largest percentage (38.3 percent) of people reporting that they were either full- or part-time students, compared with 8.9 percent of the middle age group and 2.7 percent of the older age group.

Table 3. Respondents' educational level by age group, in percentage.

Respondent educational level	Age group		
	< 34 Years	34-48 Years	> 48 Years
Less than 4 year degree	8.1	13.1	16.7
College/university degree (Bachelor's)	48.2	30.1	23.3
Professional or graduate degree	43.8	56.9	59.8
Chi square df=4= 124.75, p < 0.00.	100.0	100.0	100.0
	n=793	n=1,584	n=716

In examining employment patterns among members of the age categories, differences were observed concerning their levels of employment or unemployment (chi square df = 2= 140.47, p < 0.00). Whereas 85.8 percent of the younger age group indicated that they were employed, 96.6 percent of the middle age group reported being employed, and 82.7 percent of the older age group affirmed they were employed.

Respondents reported being employed in several types of organizations (Table 4). State agencies employed the highest percentage of respondents in all three age categories. Among the youngest age group, 32.1 percent were employed with state agencies, in contrast to 43.7 percent of the middle age group, and 40.6 percent of the older age group. Federal agency employment was reported by 18.6 percent of the younger group, 22.9 percent of the middle age group and 21.4 percent of those over the age of 48. Relatively few

Table 4. Type of organizational employment by age group, in percentage.

Type of employment	Age group		
	< 34 Years	34-48 Years	> 48 Years
Federal agency	18.6	22.9	21.4
State agency	32.1	43.7	40.6
Local governmental agency	3.5	3.4	2.8
Private sector corporation or business	13.2	10.2	9.6
Institution of higher education	25.1	13.9	17.8
Non-profit/non-governmental organization	7.5	5.9	7.9
Chi square $df=10= 58.65$ , $p < 0.00$ .	100.0	100.0	100.0
	$n=666$	$n=1,486$	$n=646$

respondents were employed by local government agencies: 3.5 percent of the younger age group, 3.4 percent of the middle age group and 2.8 percent of the older age group. About 13 percent of the younger age group were employed in the private sector, compared to 10.2 percent of the middle age group, and 9.6 percent of the older age category. Perhaps reflecting the fact that over one-third of the younger age group reported being a full- or part-time student, 25.1 percent of respondents in this group reported being employed in an institution of higher education, which presumably includes employment through research and teaching assistantships. In contrast, only 13.9 percent of the middle age group and 17.8 percent of the older group were employed in academic institutions. Employment in non-governmental organizations (NGOs) was reported by 7.5, 5.9 and 7.9 percent of the younger, middle and older age group, respectively.

Age was also related to whether or not respondents considered themselves to be a hunter, trapper or recreational angler. In response to the questions, “Do you consider yourself a hunter,” “Do you consider yourself a trapper” and “Do you consider yourself a sport angler,” less than two-thirds (59.8 percent) of the younger age group answered yes to one or more of the questions; over three-quarters (77 percent) of the older age group did so, while approximately two-thirds (66.4 percent) of the middle age group answered in the affirmative (chi square  $df = 2 = 51.61$ ,  $p < 0.00$ ).

### ***Views about Wildlife Management***

In terms of respondents’ views about selected fish and wildlife management issues, ANOVA detected significant differences among the age

groups on all four dependent measures (Table 5). Scheffe post hoc tests were used to determine the nature of the difference among the age groups.

Age groups differed significantly in their responses to the statement that “fish and wildlife species have a value in and of themselves above and beyond use by humans.” The older group had a lower level of agreement with this statement than the younger or the middle age group. The younger and middle age groups did not differ from each other. Similar differences were

Table 5. Age group views about selected management activities (1 = Strongly agree; 5= Strongly disagree) [Note: a, b, and c designate Scheffe post hoc differences among age groups. A superscript of a indicates that the age group differs from the younger (< 34) age group; a superscript of b indicates that the age group differs from the middle (34-48) age group, while a superscript of c indicates the age group differs from the older (> 40) age group. ]

Views about management	df= btw (w/in)	Mean for age group			F	p
		< 34 Years <sup>a</sup>	34-48 Years <sup>b</sup>	> 48 Years <sup>c</sup>		
Fish and wildlife species have value in and of themselves above and beyond use by humans	2 (3081)	1.27 <sup>c</sup>	1.23 <sup>c</sup>	1.35 <sup>ab</sup>	9.81	0.00
The focus of wildlife and fisheries management should be on the biodiversity of entire ecosystems rather than on individual species	2 (3066)	1.78 <sup>c</sup>	1.80 <sup>c</sup>	1.91 <sup>ab</sup>	5.44	0.00
Although biodiversity is important, managers should give priority to harvestable game species	2 (3067)	3.79 <sup>c</sup>	3.69 <sup>c</sup>	3.33 <sup>ab</sup>	36.41	0.00
Wildlife and fish species are resources to be harvested in a sustainable way and used for human benefit	2 (3058)	2.87 <sup>bc</sup>	2.69 <sup>ac</sup>	2.28 <sup>ab</sup>	53.48	0.00

detected regarding the statement that “the focus of wildlife and fisheries should be on the biodiversity of the entire ecosystem rather than on individual species.” The older group had a lower level of agreement than the younger or middle age group. Regarding the statement, “although biodiversity is important, managers should give priority to harvestable game species,” significant differences again were found. No significant differences existed between the younger group and the middle group, but both groups differed from the older age group in their mean responses.

The differences among groups were more complex with regard to the statement, “wildlife and fish species are resources to be harvested in a sustainable way and used for human benefit.” The younger age group agreed less with this statement than the middle or older groups. Similarly, the middle age group exhibited less agreement with this statement than the older age group (Table 5).

### ***Ethical Considerations***

Using the three age groups as the independent variable, conservation professionals’ views of seven ethical considerations were tested using ANOVA. Age groups differed in their mean responses on six of the seven dependent variables (Table 6). A significant difference was found among the age groups on the ethical statement, “I believe that wild animals have the same rights as human beings.” The older group had a higher level of disagreement with this statement than either the younger or the middle age group. The latter two age groups also differed significantly from each other. A similar pattern of differences occurred among the groups on the statement, “It is morally wrong to kill wildlife for human sport or recreation.” The older group disagreed the most with this statement, and significantly differed from both the younger group and the middle age group. The younger group also differed significantly from the middle age group on this statement. A significant difference was detected among the age groups regarding the statement, “Minimizing pain and suffering of individual animals should be an important criterion in managing wildlife.” The post hoc test indicated that the older group differed from the middle age group, as the older age group agreed less with the statement. No statistically significant difference was detected between the mean responses of the older and the middle age groups when compared to the responses of the younger group.

Although no statistically significant differences were detected between the younger group and the other two groups, mean responses of the middle age

Table 6. Age group views about selected ethical considerations (1 = Strongly agree; 5= Strongly disagree) [Note: a, b, and c designate Scheffe post hoc differences among age groups. A superscript of a indicates that the age group differs from the younger (< 34) age group; a superscript of b indicates that the age group differs from the middle (34-48) age group, while a superscript of c indicates the age group differs from the older (> 40) age group.]

Ethical considerations	df= btw (w/in)	Mean for age group			F	p
		< 34 Years <sup>a</sup>	34-48 Years <sup>b</sup>	> 48 Years <sup>c</sup>		
I believe that wild animals have the same rights as human beings	2 (3027)	3.29 <sup>bc</sup>	3.65 <sup>ac</sup>	3.93 <sup>ab</sup>	58.74	0.00
It is morally wrong to kill wildlife for human sport or recreation	2 (3068)	3.76 <sup>bc</sup>	3.89 <sup>ac</sup>	4.09 <sup>ab</sup>	15.97	0.00
Minimizing pain and suffering of individual animals should be an important criterion in managing wildlife	2 (3050)	2.32	2.40 <sup>c</sup>	2.20 <sup>b</sup>	8.43	0.00
A resource harvest practice or technique is more ethically acceptable to me the more:						
it reduces the period of time a harvested animal suffers	2 (3064)	1.69	1.74	1.76	2.17	0.11
it involves traditional harvest methods and gear.	2 (2955)	2.62	2.71 <sup>c</sup>	2.59 <sup>b</sup>	5.29	0.00
it involves sportsmanship	2 (2994)	2.28 <sup>bc</sup>	2.13 <sup>ac</sup>	2.01 <sup>ab</sup>	12.32	0.00
that the harvested animal is utilized	2 (3069)	1.40 <sup>bc</sup>	1.51 <sup>ac</sup>	1.58 <sup>ab</sup>	16.36	0.00

group differed significantly from those of the older group regarding the statement, “A resource harvest practice is more ethically acceptable to me the more it involves traditional harvest methods and gear.” Regarding the statement, “A resource harvest practice is more ethically acceptable to me the more it involves sportsmanship,” significant differences were observed among all three of the age groups, with the older group having the highest agreement with this statement. Significant differences among the age groups were also evident concerning the statement, “A resource harvest practice is more ethically acceptable to me the more that the harvested animal is utilized.” The younger group had the highest agreement with this statement and differed significantly from both the middle and older groups. The middle age group also differed from the older group on this statement.

In general, there are statistically significant differences among the three age groups on most of the ethics-related questions posed to them. One exception is that no significant differences were detected among any of the groups regarding the statement, “A resource harvest practice is more ethically acceptable to me the more it reduces the period of time that a harvested animal suffers.”

### ***Sociocultural Values***

Differences to questions relating to broader professional sociocultural values were also examined (Table 7). On a statement, “Even though I may find certain regulated harvest activities objectionable, I believe that people who choose to participate in them should be allowed to do so,” differences were detected between the middle and the older age groups. Neither the older or the middle age group differed significantly from the younger group. Similarly, regarding the statement, “The traditional North American conservation model is still highly relevant to achieve wildlife conservation objectives in the future,” significant differences were detected between the middle and older age groups. Again, the older group agreed most with this statement compared to the other two age groups.

### ***Wildlife Harvest Activities***

Respondents were asked about their views regarding whether or not to outlaw specific wildlife harvest activities. Regarding the statement asking if the, “Use of dogs to hunt (pursue and tree) back bears should be outlawed,” 63.2

Table 7. Age group sociocultural values (1 = Strongly agree; 5= Strongly disagree) [Note: a, b, and c designate Scheffe post hoc differences among age groups. A superscript of a indicates that the age group differs from the younger (< 34) age group; a superscript of b indicates that the age group differs from the middle (34-48) age group, while a superscript of c indicates the age group differs from the older (> 40) age group]

Sociocultural values	df= btw (w/in)	Mean for age group			F	p
		< 34 Years <sup>a</sup>	34-48 Years <sup>b</sup>	> 48 Years <sup>c</sup>		
Even though I may find certain regulated harvest activities objectionable, I believe that people who choose to participate in them should be allowed to do so.	2 (2994)	2.02	2.04 <sup>c</sup>	1.92 <sup>b</sup>	4.84	0.00
The traditional North American conservation model (based on regulated harvest, intensive management, and sportsmanship) is still highly relevant to achieve wildlife conservation objectives in the future.	2 (2909)	2.47	2.30 <sup>c</sup>	2.00 <sup>b</sup>	5.44	0.00

percent of the younger group, 56.9 percent of the middle group and 50.7 percent of the older group responded in favor of outlawing dogs to hunt bears (chi square  $df = 4 = 40.91$ ,  $p < 0.00$ , Table 8). Whereas, less than 20 percent of the younger group opposed outlawing the use of dogs to hunt bears, 26.6 percent of the middle age group and 34.2 percent of the older group opposed outlawing the use of dogs to hunt bears.

Similarly, differences were evident among the groups regarding the statement, “Use of dogs to hunt (point, flush, retrieve, etc.) upland game birds should be outlawed.” Approximately 10 percent (chi square  $df = 4 = 29.72$ ,  $p < 0.00$ , Table 8) of the younger age group were in favor of outlawing dogs to hunt upland game birds, nearly twice as many as the middle group (4.9 percent) and the older group (5.5 percent) that favored such a restriction.

Responses to the statement, “Use of leghold traps to trap furbearer species should be outlawed,” reaffirmed the pattern of differences among these

Table 8. Views of three selected wildlife harvest activities by age group.

Wildlife Harvest Activities	Age group		
	< 34 Years	34-48 Years	> 48 Years
Use of dogs to hunt (pursue and tree) black bears should be outlawed			
Yes (favor)	63.2	56.9	50.7
No (oppose)	19.7	26.6	34.2
No Opinion	17.1	16.6	15.1
Chi square: df=4= 40.91, p < 0.00	100.0	100.0	100.0
	n=666	n=1,486	n=646
Use of dogs to hunt upland game birds should be outlawed			
Yes (favor)	9.5	4.9	5.5
No (oppose)	78.0	84.7	86.5
No Opinion	12.4	10.4	8.0
Chi square: df=4= 29.72, p < 0.00	100.0	100.0	100.0
	n=666	n=1,486	n=646
Use of leghold traps to trap furbearer species should be outlawed			
Yes (favor)	52.2	46.0	39.3
No (oppose)	31.4	39.2	48.4
No Opinion	16.4	14.8	12.3
Chi square: df=4= 45.30, p < 0.00	100.0	100.0	100.0
	n=666	n=1,486	n=646

age groups (chi square  $df = 14 = 45.30$ ,  $p < 0.00$ , Table 8). The younger age group again emerged as being the most in favor of such a ban, with 52.2 percent agreeing. In contrast, 46 percent of the middle age group and 39.3 percent of the older group favored outlawing such traps. Among the younger age group, 31.4 percent opposed outlawing leghold traps. In comparison, 39.2 percent of the middle age group and 48.4 of the older group were against such a ban.

## Summary and Conclusions

Data analyses indicate that there are consistent, statistically significant differences among the attitudes, values and sociodemographic characteristics of younger conservation professionals and their older counterparts. Respondents in the middle age group often fall somewhere in between, and they often differ significantly from either the younger group, the older group or both. In many cases, though the differences between the groups are statistically significant, they are relatively slight in terms of their importance. In other cases,

however, differences between the three age groups indicate sociological significance that has the potential to erupt in conflict over the direction of policy and management.

What are the implications of these data for the future of wildlife conservation? What happens, for example, when a state wildlife agency, with a traditional focus on game management, promotes a younger employee who feels that an ecosystem approach to management is better for the environment and more responsive to prevailing social values? Or, what happens when an agency hires a new entry-level employee who feels that regulated trapping represents frivolous and gratuitous cruelty that cannot be justified by providing economic and sociocultural benefits to participants in trapping? What are the implications when several agency employees hold these non-traditional values?

These situations, in which younger employees, whose personal and professional values conflict with the dominant cultural values of the organization, suggest four possible outcomes, all of which have potentially negative repercussions if not proactively managed.

***Retain non-traditional values and remain with the agency.*** Under this scenario, the employee could stay with the agency, retain non-traditional values. It is likely that the employee would become marginalized as it became evident that the personal values conflicted with the organization's values. These employees would experience alienation and dissatisfaction, which may impair the ability to make meaningful contributions at work. The lack of productive and meaningful work could undoubtedly impact the employee's morale and self-esteem, often with negative effects, which can be very disruptive to other employees.

***Retain non-traditional values and leave the agency.*** Another option is for the employee to retain non-traditional values, but leave the agency. This option might be appealing to agency administrators, but it has at least two drawbacks. First, it poses the prospect of losing trained employees. Employee turnover can result in lack of efficiency and loss of institutional memory that are important attributes in administering agency programs. Second, in order to remain dynamic and vital, organizations require some level of value diversity that will allow adaptation to changing legislative priorities and social values. Loss of employees with different values may result in a homogenous workforce with a

groupthink mentality that deprives the organization of the necessary ingredients for progressive change (Janus 1983).

***Change values and adopt the values of the agency.*** In the majority of cases, when forming their occupational identities, employees go through an occupational socialization process at work. They have conversations with fellow employees, they attend orientation sessions, they participate in on-the-job-training and they become increasingly familiar with the reasons agencies do what they do. Over time, rather than continue in a state of cognitive dissonance, they make personal compromises (often unconsciously) or they change their values such that they become more aligned with the cultural values of the agency. However, the result can be a groupthink mentality that retards progressive change.

***Retain values and work to change the values of the agency.*** This scenario, embodied in the example of Aldo Leopold, who worked to change the values of the entire profession, might be ideal. However, agency administrators have a right to be leery of subordinates who operate in this mode. First, it confuses policy makers and the public when an agency employee advocates positions contrary to the agency's official policy. Second, advocating changes in the agency's values and mission often risks alienating traditional constituencies that have supported the agency. However, there is one possible benefit of this scenario, which is that the agency may become more closely aligned with the broader sociocultural values of society.

These four possible scenarios may fail to capture the complexity and nuances that represent the many possible future options. They are presented to stimulate discussion because it is our view that the profession must acknowledge and begin to address the challenges posed by the changes in the workforce. These four scenarios focus on the options facing the individual employee, but it is difficult to deny that the younger age group will, by attrition if nothing else, come to dominate the conservation professions. Scenarios three and four will be the most likely possibilities, in terms of influencing the culture and mission of conservation agencies and organizations in the future. The question remains, which scenario and under what circumstances, will dominate.

Policy makers, agency administrators and interest-group leaders would be well-advised to develop proactive approaches for integrating younger

professionals with different values and sociocultural backgrounds into conservation organizations. Agencies must accept that there is value diversity, but they must also work to sensitize new employees, young and old, to the culture of the organization. The best and brightest minds available will be needed to meet the challenge of advancing the cause of wildlife conservation in the future.

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