PROBLEMS, PRINCIPLES, AND POLICIES IN WILDLIFE-CONSERVATION JOURNALISM

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PART I

WILDLIFE CONSERVATION AS A JOURNALISTIC PROBLEM

INTRODUCTION

The area in which wildlife conservation and journalism impinge upon each other is the subject of this paper. It is largely a frontier area which has only recently been discovered in all its ramifications, which is occupied by numerous savages and only a handful of skilled pioneers, and which is waiting to be explored by such expeditions as this thesis represents.

Were the subject-area to be classified in a biological fashion, its taxonomy would appear to be something like this:

Phylum: Communications
   Order: Education
      Family: Science Education
         Genus: Science Journalism
            Species: Conservation Journalism
               Variety: Wildlife Management Reporting

While the overtones of this study involve fundamental considerations in the broad fields of journalism, public relations, public administration, education, and scientific investigation, the focus of the study itself is limited to the interpretation of wildlife conservation (with special emphasis, where applicable, to the state of Wisconsin). There are two reasons for this truncated approach. First, the interpretation of the science of wildlife management presents a clear and present problem in itself. Second, it is probable that in journalism, as in ecology, the mechanisms of a complex society will become understandable only when the mechanics of a relatively simple segment is fully analyzed.
DISCUSSION

For purposes of this study, the Webster's definition of "journalism" will suffice: "The business of managing, editing, or writing for journals or newspapers."1 "Wildlife management," or "wildlife conservation," needs more documentation.

Narrowly applied, it means "the art of making land produce sustained animal crops of wild game for recreational use."2 Used more broadly, it involves man-to-land conduct, and "putting the sciences and arts together for the purpose of understanding our environment."3, 4 The term is conveniently, if not correctly, used herein to include fish as well as game.

And the point might as well be made here and now, that one cannot rightfully separate wildlife from the land, or them from people. We are all of one piece.5 This fact has long had its biological implications and will be seen to be the very basis of the problems—and the possibilities—in wildlife-conservation journalism.

It is not the purpose, nor should it be necessary, for this study to do anything more than mention the importance of all natural-resources conservation today in general and the importance of wildlife conservation in particular.6 One timely and pertinent statement will be sufficient—from the preambule to the program for a conference on "Conservation of Wisconsin's Nat-

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1 N. Webster, Collegiate Dictionary (Springfield, Mass., V, 1947), 545.
2 Aldo Leopold, Game Management (New York, 1933), 4.
3 Ibid.
4 "Twenty centuries of 'progress' have brought the average citizen a vote, a national anthem, a Ford, a bank account, and a high opinion of himself, but not the capacity to live in high density without befouling and denuding his environment, nor a conviction that such capacity, rather than such density, is the true test of whether he is civilized. The practice of game management may be one of the means of developing a culture which will meet this test."—Ibid., 418.
5 "We find that we cannot produce much to shoot until the landowner changes his ways of using land, and he in turn cannot change his ways until his teachers, bankers, customers, editors, governors, and trespassers change their ideas about what land is for. To change ideas about what land is for is to change ideas about what anything is for. Thus we started to move a straw, and end up with the job of moving a mountain."—Aldo Leopold, "The State of the Profession," The Journal of Wildlife Management, Vol. 4, No. 3, July, 1940, 346.
6 "Conservation is not just something it would be nice to have. It is not just something that would make life a little more pleasant and perhaps a bit more profitable. Conservation is a matter of life and death. In spite of civilization, in spite of great material achievements, like the release of atomic energy, people are today more than ever faced with elemental demands, such as the need for food, water, and shelter."—Edward H. Graham, "Flashbacks from the St. Louis Conference," Outdoors Unlimited, June, 1948, 1.
ural Resources" held on the University of Wisconsin campus, June 30–July 1, 1949:

Conservation has been defined broadly as the efficient and intelligent use of natural resources. Conservation means not hoarding, but wise utilization, both in peace and war, without exploitation of either the physical resources themselves or of the human elements involved. The record of the past hundred years shows wasteful practices that should be corrected. It shows an alarming depletion of resources, not all necessarily wasteful. It calls for intensified study of the possibilities of utilizing marginal nonrenewable resources, as well as conservation of renewable heritages. The depletion of Wisconsin's natural wealth is a matter of public knowledge. Its great pineries have been replaced by aspen scrub; its superb rivers have been silted and polluted; many of its fauna have been extinguished or converted into pests; six million of its acres have lost five inches or more of top soil. Our aspirations to wiser resource use, collectively called conservation, have been slow to stem destructive forces.  

The calling of such a conference itself is indicative of the importance of the subject. As is the fact that two of the most popular and—fortunately—most-discussed postwar non-fiction books are Fairfield Osborn's *Our Plundered Planet* and William Vogt's *Road to Survival*, both of them trumpeting the call for more and better conservation.

Of course, neither such conferences nor such books are either new or necessarily worthwhile. Conservation has been, by common consent, a good thing for a good many years. Barring love and war, few enterprises are talked about or toyed with in so many diverse ways and places, by such a mixture of groups and persons, as conservation. But the net total of all this effort has been something only slightly more than zero. We have accumulated pledges and societies, but we have not conserved.

As the late Aldo Leopold put it:

Everyone ought to be dissatisfied with the slow spread of conservation to the land. Our "programs" still consist largely of letterhead pieties and convention oratory. The only progress that counts is that on the actual landscape of the back forty, and here we are still slipping two steps backward for each forward stride.  

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But, as we have said, it is not the purpose of this study to document either the necessity for all types of conservation or the current lack of it. It is the purpose of this study to reconnoiter the journalistic no-man’s-land where wildlife conservation falters.

A generation ago, wildlife managers began with the job of producing something to shoot or catch. It seemed to them that once they collected a body of scientific knowledge about wildlife crops and cropping, all would be well. They initially reckoned not with the land nor, more important, with the landowner. Now they are face to face with the fact that wildlife conservation is not so much management of game as management of public opinion.\textsuperscript{9}

The realization is catching on.

Seth Gordon, for many years executive director of the Pennsylvania Game Commission, is on record as saying that “the human element—the public relations problem—is always more difficult to handle than is the management of wild creatures.”\textsuperscript{10}

Something of the same sentiment is voiced by Ira N. Gabrielson, president of the Wildlife Management Institute, in his book, \textit{Wildlife Conservation}:

The most uncertain factor is not management (of game) itself but public support for a suitable and effective program that may be neither a spectacular performance nor a crusade.\textsuperscript{11}

I take it that the late Professor Leopold of the University of Wisconsin (and the Wisconsin Conservation Commission) had a similar idea in mind when he told the 1946 Midwest Wildlife Conference at Columbia, Mo.:

A conservation commission can operate up to the level of public opinion, but finds a drag when it attempts to proceed beyond that point. A commission cannot build a program without public support.

\textsuperscript{9} “Quite as necessary as research is education. . . . Effective conservation has been made impossible in many parts of the world by man’s failure to recognize the indispensability of scientific treatment. . . . The education of conservation workers is not enough. The leaders in all countries must understand the ecological imperative, and in the democracies this understanding should reach all the people.” —William Vogt, \textit{Road to Survival}, New York, 1946, 175.

\textsuperscript{10} Seth Gordon, “Pennsylvania Bags 700,000 Deer in Ten Years,” \textit{Our Deer—Past, Present and Future}, Harrisburg, 1944, 22.

\textsuperscript{11} Ira N. Gabrielson, \textit{Wildlife Conservation}, (New York, 1941), 313.
To borrow a term from the game managers themselves, public opinion constitutes a *threshold* which effectively controls the application of game-management techniques to public conservation problems. The woods are strewn with the skeletons of conservation projects which have died, not because of any genetic flaw, but through lack of sufficient discriminating public interest and support.¹²

Biologists, in short, once dreamed of solving wildlife problems while the galleries cheered. Wiser now, they see need for "human engineering" as well as better research. So it was that H. Albert Hochbaum of the Delta (Manitoba) Waterfowl Research Station, speaking at the Ninth Midwest Wildlife Conference at Purdue University in December, 1947, addressed his fellow ecologists, not on the management of wildlife, but on "The Management of Man." It is becoming increasingly apparent, he said, that the knowledge and co-operation of the public is of fundamental importance in carrying out a well-rounded conservation program.¹³

Mr. Hochbaum's thesis was echoed by Frank H. King, regional co-operative wildlife manager, Horicon, Wis., in a recent issue of the *Wisconsin Conservation Bulletin*:

> The real core of the trouble seems to be that the public does not understand our program and so is not ready to adopt it.¹⁴

This low public-opinion threshold has been responsible, in the words of Ira N. Gabrielson, "for an appalling waste of conservation funds and effort."¹⁵

The most common form of this waste is sportsmen's pressure for greater and more liberal harvesting privileges than the con-

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¹² A National Conservation Education Workshop, held June 14 through June 17, 1948, at the Cook County Forest Preserve District, Illinois, under the auspices of the National Committee on Policies in Conservation Education, could come only to this conclusion: "At the present time there is failure on the part of the average citizen to understand the basic facts concerning the wise use of our natural resources, coupled with an individual sense of futility and consequent irresponsibility. This constitutes a serious threat to individual welfare and national survival." *Proceedings of the National Conservation Education Workshop*, Chicago, 1948, 17.

¹³ "Most of the resistance to intelligent game conservation programs has come from those who hunt and fish."—Gabrielson, *Wildlife Conservation*, 237.


dition of the stock will allow;\textsuperscript{18} or, contrariwise, sportsmen’s opposition to more liberal cropping when ranges become patently over-stocked with ungulates.\textsuperscript{17}

Another great waste has come from sportsmen’s pressure for indiscriminate artificial propagation and restocking programs which wildlife science has shown in many cases to be uneconomical if not downright dangerous.\textsuperscript{18} Wanton predator control is another favorite phobia of sportsmen.\textsuperscript{19} Tolerance of incompetent state conservation commissions is another shortcoming.\textsuperscript{20}

E. Sydney Stephens, late chairman of the Missouri Conservation Commission, once charged:

Conservation is a sissy, with ruffled pantalettes, a May basket in her hand, and a yellow ribbon in her hair. The weakness lies primarily with state administration. It’s not a pretty picture; in too many cases it’s ugly as hell! Of 65 departments in 48 states, only five have a “passing” grade.\textsuperscript{21}

The Wisconsin situation was highlighted recently by Gordon MacQuarrie, outdoor editor of the \textit{Milwaukee Journal}, in these words:

We do wondrous things in Wisconsin. We’ve got a conservation director responsible for a $6,000,000 budget whom we pay $6,500 a year, less than the salaries of his two

\textsuperscript{18} “A difficulty in the proper handling and utilization of wildlife is often found in the attitude of hunters and fishermen who desire to take more game or fish than the crop available for harvest, regardless of the condition of the breeding stock... It is too common in the abstract to be all for conservation and wise use but in practice to be only for self at the other fellow’s expense.” —Gabrielison, \textit{Wildlife Conservation}, 126.

\textsuperscript{17} “It is my considered opinion that excess deer have, during the past decade, cancelled out all the forestry program of all agencies working in Wisconsin.” —Aldo Leopold, “The Deer Dilemma,” \textit{Wisconsin Conservation Bulletin}, September, 1947, 3.

\textsuperscript{19} “All evidence leads to the conclusion that much stocking is unnecessary, uneconomical, or even harmful if the species suited to the environment are already present.” —F. A. Westerman and Albert S. Hazzard, \textit{For Better Fishing}, (East Lansing, Mich., 1945), 7.

\textsuperscript{20} “Unless the predator scourge and its effect on present game conditions is recognized, we will never again see good hunting. Predator control, and especially a drastic reduction of the fox horde, is the prime factor in any game restoration program. Without it all efforts will fail miserably.” —Leo A. Wincowski, “Are Our Wildlife Sanctuaries Simply Free Lunch Counters?”, \textit{Outdoors Unlimited}, January, 1949, 1.

\textsuperscript{21} “The citizen makes increasing demands for services from his government to help him exist in a 20th century world, and yet his connection with and interest in that same government tends to recede more and more into apathetic separation.” —Fred E. Merwin, \textit{Public Relations in Selected Wisconsin Administrative Departments}, unpublished thesis, (Library, University of Wisconsin, 1937), 4.

\textsuperscript{22} E. Sydney Stephens, “Where Are We and What Time Is It?”, \textit{Address, North American Wildlife Conference}, St. Louis, 1946.
assistants. We are losing bright young men in forestry and biology departments of the state because private industry pays them better. We were the last important fishing state in the Union to pass a universal fishing license law. We, the people, persist in a kibitzing program of advising expert game managers that is comparable with a sick person indulging in self-medication. We spend around $50,000 a year trying to feed deer artificially, despite the fact that every other important deer state found out years ago it was money wasted, and quit it. We decline to learn from the experiences of other states. We set up our conservation commission and its department as a convenient whipping boy. We pay bounties amounting in some years (county and state) to about a quarter million dollars on predatory animals, when the truth is that no reputable game man in the country will endorse such expenditure. They all know it is no good. . . . It comes down to this: There are too many self-avowed experts in the Wisconsin conservation picture and the real experts, the trained men, are doing things they do not want to do but are forced to do.23

To summarize, it is virtually self-evident that the bottleneck in the conservation of American wildlife today is increasingly less an insufficient research base for operations and increasingly more an insufficient public support of sound management practices.

Fortunately, the public-opinion threshold is not so static as the many thresholds in nature. It is conditioned by the emotion and intelligence of the public.24 Consequently the opinion threshold can be raised by stimulating the public's awareness and increasing the public's fund of information. In short, by education.24

As Chester S. Wilson of the Minnesota Conservation Department has said:

24 "Behind every human act lies an 'emotion' that sets the act going; and behind the 'emotion' lies a 'thought' or an 'idea'. If such survival-emotions as the desire for conservation are to become part of our daily existence, they must be based on knowledge and the thought that stems from it. If we are to make peace with the forces of the earth, that peace must begin in our minds—and we must seek, and accept, many new ideas. We must reject many old ones."—William Vogt, Road to Survival, (New York, 1948), 210.
24 "'Conservation' has been so long sterilized by isolation from 'education'—when they are in reality inseparable—that many Ph.D.'s are ignoramuses in questions having to do with the land; and a shocking proportion of our State Conservation Commissions are guided by traditions that should have disappeared with the Model T."—Ibid., 313.
Conservation education will get more results per dollar spent than any other conservation activity.  

But what kind of education? The teaching of wildlife conservation in every grade from first to 16th is of course an obvious necessity. Such a course of action will, however, bring results only in the next generation. For results in the present it is the adult population which must be educated, and this can primarily be done only through the public press.

It was E. W. Scripps who wrote:

It is only through the press—mainly the daily press—of the country that the vast majority of the people of this country receive any information or education at all. It is, therefore, only through the press that the public can be quickly and well instructed on matters of its greatest interest.

The daily newspaper, in other words, is a main channel to the public’s thought stream. Stimulation of public awareness and increase of public information through the newspaper—and its attendant magazines and journals—presupposes an ability to write about significant subjects in terms which the public can understand. Unfortunately the situation today in conservation journalism seems to be one in which we have a plethora of journalists with nothing to write about and a paucity of technicians who can write in the popular vein.

On the one hand are the so-called “outdoor writers.” E. Sydney Stephens bitingly characterized “98 per cent of them” in these words:

They apparently don’t know what it’s all about. They either clip or paste, or they write glowing accounts and publish pictures of what Joe Doakes killed or caught last weekend, which only invites and incites millions of others to go and do likewise. But nary a word about what it takes to put fish in streams or birds in fields.

G. G. Simpson of the American Museum of Natural History has documented the case history of a scientific news story which originated in his office.

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Out of nearly 100 papers whose stories finally come back to him, only about one-tenth had reports that were neither seriously wrong scientifically nor obnoxious to him personally.28

He comments:

In view of the great need for popular presentation of the results of research, and in view of the mechanisms set up for this purpose and used in this case, this is a serious matter despite its humorous side. It is fairly typical of what still happens to scientific news.

On the other hand are the conservation experts, most of whom, according to Russell Lord, editor of The Land, write in "a rather spurious or pretended jargon of objectivity which they impose upon themselves as a mark of scientific respectability."29

Clarence Cottam of the U. S. Fish and Wildlife Service put it this way at a recent Midwest Wildlife Conference:

Research reports are too often written in a lingo the public cannot understand and in such a manner that they are worthless unless interpreted by someone else capable of writing and speaking to the public. . . . We need better public appreciation of the importance of research as a foundation for practical information and management. The results of technical research should be popularized.30

Perhaps one telling example of what Mr. Cottam is talking about might well be cited. Prof. Paul L. Errington of Iowa State College last year wrote a prize-winning learned paper on "Predation and Vertebrate Populations." Mr. Errington's theme should come to the immediate attention of the sporting public, since he pooh-poohs the popular conception that predator control is the alpha and omega of game management. Yet here is the conclusion of Errington's essay, couched in such diverse terminology that I suspect even some experts are probably hard-pressed to follow it:

On the whole, in view of the human tendencies to overestimate the population effects of conspicuous or demonstrably heavy predation, something of a scaling down of emphasis should well be in order, notably in appraising the

role of direct predation in the population mechanics of higher vertebrates. Thresholds of security and their associated inverse relationships between the numbers of adults resident and the numbers of young produced or tolerated are frequently suggested by the published data, and these in turn quite evidently operate in conjunction with characteristics of habitat and with "cyclic" and other depression phases; but the patterns revealed may look remarkably little influenced by variations in kinds and numbers of predators. Even in equations depicting predator-prey interactions in lower vertebrates, loss types may substitute naturally for each other instead of pyramiding, and compensatory reproduction should not be ignored when a resilient instead of a rigid fecundity is indicated.\textsuperscript{51}

Dr. Errington, in other words, needs a translator just as much as if he were writing in Arabic. And it would not be amiss to point out here that Dr. Errington does have a translator. The Conservation Commission with which he works, through illustrated weekly releases and spot news stories to the press, reaches thousands of people daily. The Iowa Conservationist, a monthly magazine with an issue of 22,000 copies, is sent free to all county superintendents of public schools for distribution to rural schools, free to many libraries and other public places, and by cost-subscription to many citizens. Certainly this program of public education has had a part in making possible a unique Iowa legislative act embodying the principle of biological balance as applied to wildlife.\textsuperscript{52}

What is here implied is that the key public support for wildlife conservation can be enhanced by a combination of bringing the ideas of the experts down to the level of the sportsman's grasp and bringing the sentiments of the sportsman up to the plane of management's possibilities. This meeting of minds can be substantially aided by a wildlife story translator, he being either a journalist with a technical background or a biologist with a flair for popular writing.\textsuperscript{53}

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\item "Is there a great need for writers who have both journalistic ability and the proper training in the technical fields? An emphatic 'yes' was given by the editors of 31 of the nation's leading agricultural and conservation magazines in their answer to this question in a survey of 50 periodicals made by the author last summer."—Robert W. Shaw, "Technical Journalists Wanted, Survey Shows," The Quill, September–October, 1946, 10.
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That such combinations are within the realm of possibility is testified by present evidences in the public prints. Certainly Harold Titus’ “Old Warden” series in past Field & Streams and the “Running Sores on the Land” series in 1948 issues of Sports Afield are prime examples of the journalist turned scientist. On the other hand, in the profession of wildlife management, and on its fringes, are a growing number of scientists with literary bents; Frazier Darling, Durward Allen, D. C. Peattie, Albert Hazzard, for instance.

“These intergrades in human taxonomy,” wrote Aldo Leopold, “are perhaps more important than those which so perplex the mammalogists and ornithologists. Their skulls are not yet available to the museums, but even a layman can see that their brains are distinctive.”

**Summary**

If, then, wildlife conservation is in large measure a problem in the management of man, and if the management of man involves the successful translation of the message of wildlife science into the jargon of the sportsman, what are some of the fundamental problems in wildlife-conservation journalism?

They seem to me to include these two:

First, what are some of the principles which should underly the interpretation of wildlife science?

Second, what is a sound wildlife-conservation journalism policy for the future?

To the answering of these questions this paper is devoted.

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35 This is not to say, of course, that all wildlife research knots are tied. For example:

“We patrol the air and the earth, but we do not keep filth out of our creeks and rivers. We stand guard over works of art, but species representing the work of aeons are stolen under our noses. In a certain sense we know more about the fires that burn in the spiral nebulae than those that burn in our forests. We aspire to build a mechanical cow before we know how to build a fishway, or control a flood, or handle a woodlot so it will produce a covey of grouse.”—Leopold, Game Management, 7.
PART II

WILDLIFE-CONSERVATION JOURNALISM PRINCIPLES

INTRODUCTION

Newspapers of Friday, January 10, 1947, carried a United Press dispatch datelined Washington, D. C., which read in part:

An army of more than 12,000,000 hunters and fishermen is rapidly depleting some species of wildlife, the Fish and Wildlife Service warned today. In its annual report on wildlife conditions, the Service called for "the most careful planning and the most unremitting effort" to prevent serious damage to the nation's fish, fowl and wild animals.¹

Thus are we of the "enlightened" 20th century well on the way to seeing repeated on a grand and terrible scale the mass murder of bison and passenger pigeons.

There is only one thing that will save American wildlife as we know it and that is nothing less fundamental than a revolution in the spirit of the American outdoorman, a revolution which will change every American hunter and fisherman from a consumer of wildlife goods to a producer of wildlife appreciation, a revolution which increases his perception and decreases his trigger-itch.²

This job of remaking the American sportsman is a tough assignment. It is a job in which the wildlife-conservation journalist must play an important part. Because it is such a grassroots proposition, it involves more than a mere facility with the techniques of interpretation.³ It involves at least a vague idea of what the mission is all about; a conservation philosophy, if you please.⁴

¹(Madison), Wisconsin State Journal, Jan. 10, 1947, 1.
²"Conservation must exist in the mind before it exists on the land."—Ollie E. Fink, The Gateway to Conservation, (Columbus, Ohio, 1946), 9.
³"In self-education, in the schools, in the public forum, and in the whole communication process of our time it is essential that the wise use of natural resources becomes more than a catch-phrase, more than a byword, more than a 'subject' of study. .... Conservation must now enter the required core of human experience."—Association for Supervision and Curriculum Development of the National Education Assn., Large Was Our Bounty, 1948 Yearbook, (Washington, D. C.), 146.
⁴"Uses to which man puts the environment are determined not alone by his skills. Even more those uses are determined by what he believes, and thinks, to be valuable. If we consider that our own generation is the ultimate value, we will have little concern for the future, even for the future of our own children. If we consider that our own individual good is the chief good, we shall attempt to
What are the principles which must motivate and make up any real conservation journalism program? To the answering of that question this chapter is devoted.

**DISCUSSION**

*Conservation Perspective.* Conservation has three prime facets—public administration, biology, journalism. Conservation has a history. For the wildlife-conservation journalist in Wisconsin, for instance, these facts should shape up into the following outline:

I. Conservation history as a political scientist sees it.

1838 Fishways required in all dams “except mill dams.” Probably first conservation law.
1851 First closed seasons (on deer, prairie chicken, quail, woodcock, and ruffed grouse).
1867 Commission appointed to investigate forestry conditions.
1891 Office of State Game Warden established.
1898 Prohibition of spring shooting made conditional upon like action by adjacent states (which was never taken).
1895 Office of Commissioner of Fish and Fisheries established.
1897 Resident and non-resident licenses required.
1901 First state park purchased in Polk County.
1901 Passed Audubon Society “model law” protecting non-game birds.
1907 State Park Board established.
1911 First Conservation Commission established.
1912 Buck law passed.
1915 Federal migratory bird regulations in effect.
1927 Commission reorganized on “commissioner-director” plan.
1927 First national forest purchase area set up in Wisconsin.
1933 Commission given power to set all game open season dates.
1934 Conservation Congress organized.
1938 Federal aid for wildlife becomes available through Pittman-Robertson Act.
1939 State Planning Board issues study on Horicon Marsh.

II. Conservation history as a biologist sees it.

1882 Last buffalo east of Mississippi killed in Trempealeau County.
1840 Sharptails “extremely abundant” in southern Wisconsin.

*accumulate wealth, or money, and therefore power clear beyond any needs of our own, largely for the purpose of satisfying our urge for dominance by controlling the destiny and lives of others. Ultimately, the wise use of resources depends upon the creed we live by, the ethics that guide our conduct, our essential sense of stewardship.”*—Edward G. Olson, “Educating for Social Perspective,” *NEA Journal*, Vol. 31, No. 9, December, 1942, 277.

*8 Aldo Leopold, “Wisconsin Wildlife Chronology,” *Publication 501*, Wisconsin Conservation Department, (Madison, 1940).*
1856 Last Wisconsin turkey killed in Grant County.
1871 Last great Wisconsin meeting of passenger pigeon; covered 850 square miles and contained 136 million pigeons.
1875 First state fish hatchery.
1876 Barbed wire fencing first available in quantity.
1878 Dr. E. A. Birge started his study of Wisconsin lakes.
1879 Carp introduced into Wisconsin by U. S. Fish Commission.
1897 Wisconsin Geological and Natural History Survey established.
1899 Last Wisconsin passenger pigeon shot in Wood County.
1910 Gustav Pabst began planting pheasants and Hungarian partridge in Waukesha County.
1921 H. L. Stoddard employed by Milwaukee Public Museum.
1928 Conservation Commission started game farm and began statewide public planting of pheasants.
1928 Research committee appointed by Conservation Commission and prairie chicken investigation gets underway.
1929 Sporting Arms and Ammunition Institute started game survey of Wisconsin.
1933 AAA and CCC start soil conservation and stream improvement work.
1933 Chair of game management established at University of Wisconsin.
1940 State takes 95-year lease on Central Wisconsin Conservation Area.
1941 Conservation Department, with federal-aid funds, begins research projects on deer, pheasant, grouse, and waterfowl.⁶

III. Conservation history as a journalist sees it.

1867 Statute requiring county treasurers to publish the game laws yearly in local papers.
1873 First state association for preservation of game.
1910 Van Hise published *Conservation of Natural Resources.*
1910 Dean Russell instituted forestry-game course in University of Wisconsin short course.
1920 Friends of Our Native Landscape organized.
1922 First Izaak Walton League chapters founded at Milwaukee and Fond du Lac.
1929 State Federation of Women's Clubs start conservation work.
1935 Teaching of conservation made compulsory in public schools.
1936 *Wisconsin Conservation Bulletin* first published by Conservation Department.
1939 Wisconsin Society of Ornithology organized.
1946 Four-year conservation course for teachers set up at Central State Teachers College, Stevens Point.
1947 Conservation major established at University of Wisconsin.⁷

*One-World Conservation. The subject of conservation means one thing here and another thing there. To the hunter it means

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⁶ Aldo Leopold, *op. cit.*
⁷ Aldo Leopold, *op. cit.*
simply stocking pheasants on barren uplands. To the farmer it means drawing a check for not planting corn on a slope. To the botanist it means protecting a last stand of ladyslippers.

Actually, conservation is one of the all-embracing words in the richest of all languages, and a crying need in wildlife-conservation journalism is to get across the universal one-world concept of conservation.8

Let us see how the National Committee on Policies in Conservation Education defines the term.

"Conservation," says the Committee, "is the use of natural resources in such a way as to contribute to the best possible future welfare of mankind. Essentially it is good citizenship applied to the use of natural resources. It must deal with soil, water, forests, grasses and other vegetation, all wild animals, minerals, and scenic resources."9

Conservation was at one time synonymous with preservation—"thou shalt not." Then it came to mean planting a tree on Arbor Day or hatching fish to be placed in muddy and polluted streams. Today conservation means predominantly "wise use." It means the "preservation and restoration of our forests, control and augmentation of our water supply, and the preservation and restoration of our soil," according to Louis Bromfield.10

The soil is basic. Sportsmen, particularly, are prone to ignore this fact. Yet hunting and fishing, as such, are strictly secondary.

"We know that if we are to have a strong, healthy, and prosperous America," says William Voight, Jr., of the Izaak League, "we must take proper care of our soil, its beneficial vegetation, water, and other renewable resources. Without these, the whole country will be reduced to helplessness in no time. With them in good shape, we will also have decent hunting and fishing as welcome by-products."11

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8 "The whole meaning of the American problem will be missed unless all resources are studied, and then not only as separate areas but also in their functional interflow. That is why the integrated approaches of both science and social studies are essential to the development of social perspective in children and adults alike."—Edward G. Olson, "Educating for Social Perspective," NEA Journal, Vol. 31, No. 9, December, 1942, 278.


11 William Voight, Jr., Personal Communication to Author, November 12, 1948.
To say that wildlife cannot be managed properly except as it relates to land use is but another way of stressing the dependence of wildlife upon environment. The way we manage the land determines whether wildlife shall have a place.

In the words of the Soil Conservation Service’s Edward H. Graham, “When we have accomplished land conservation, we shall have gone a long way toward achieving wildlife conservation.”

This is the Number One conservation lesson for America’s sportsmen to learn.

The cause needs a discussion and analysis of what constitutes whole conservation, not in terms of duck hunters, or fishermen, or bird lovers, or foresters, but in simple, general terms of man’s existence in relation to soil, water, and vegetation.

The editor of the Journal of Forestry writes in a recent editorial of “One Forest World.” But our world is not alone “One Forest World;” it is also “One Wildlife World,” “One Soils World,” or better than all of these simply “One World,” having regard for all resources, organic and inorganic, and all the people.

Even the Congress of the United States has had this universal aspect of conservation called to its attention in 1948 by Bill HR 6054, introduced by Chairman Clifford R. Hope of the House Committee on Agriculture.

The bill would centralize and integrate all federal conservation activities.

“The economy of nature,” declares Representative Hope, “is not divided into parts labeled ‘soil conservation,’ ‘forestation,’ ‘watershed protection’ and ‘agricultural production’. It is one big proposition."

What this means in terms of conservation journalism is that the subject should be presented in terms of its total and not in terms of its details. The objective is to teach the reader to see the land, to understand what he sees, and enjoy what he understands. Wildlife, for instance, cannot be understood without understanding the landscape as a whole. The sciences and arts of conservation must not be discussed as if they were separate.

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14 “Bill HR 6054,” Outdoors Unlimited, April, 1948, 7.
The one-world nature of conservation also means that the subject cannot be presented in a vacuum. It should be integrated throughout other news, not presented as a separate package.\(^5\)

**Conservation Citizenship.** A basic defect in current conservation journalism is that we have not asked the citizen to assume any real responsibility, to display any personal code of ethics. We have told him that if he will vote right, obey the law, join some organizations, and practice what conservation is profitable on his own land, that everything will be lovely; the government will do the rest.

This formula is too easy to accomplish anything worth while. It calls for no effort or sacrifice, no change in our philosophy of values.

Leopold called what is lacking “the ecological conscience.”\(^6\) Biology is the science of communities, he said, and the ecological conscience is the ethics of community life. It is citizenship applied to conservation.

This simply means that the practice of conservation must spring from a conviction of what is ethically and esthetically right, as well as what is economically expedient. A thing is right only when it tends to preserve the integrity, stability, and beauty of the community, and the community includes the soil, waters, fauna, and flora, as well as people.

Simply put, we need a code of decency for man-to-land conduct.

“We must cease being intimidated,” declared Leopold, “by the argument that a right action is impossible because it does not yield maximum profits, or that a wrong action is to be condoned because it pays. That philosophy is dead in human relations, and its funeral in land-relations is overdue.”\(^7\)

Thus, agrees Professor Howard Michaud of Purdue, the primary objective of conservation education is to develop “a conservation consciousness” that will safeguard the resources upon which this nation depends for its high standards of democratic living.\(^8\)

\(^7\) Aldo Leopold, *op. cit.*
In other words, the end purpose of conservation journalism must be to show the citizen that conservation is impossible so long as land-utility is given blanket priority over land-integrity. It will be his personal philosophy of land use, as well as his vote and his dollar, which will ultimately determine the degree to which the conservation idea is converted from preachment into practice.

**Vital Nature of Conservation.** "Conservation," says E. Sydney Stephens of Missouri, "is a sissy, with ruffled pantalettes, a May basket in her hand, and a yellow ribbon in her hair."

We must begin to emphasize the life-and-death nature of conservation. Against a background of war, we must prove that democracy can use its land decently.

The high standard of living that exists in the United States today is based on an unparalleled abundance of natural resources and partly on their irrational and irresponsible exploitation. These capital assets are being dissipated at an alarming rate. History records many peoples that have been reduced to poverty or obliterated because of exploitation of natural resources. Nature does not issue a blank check.

These are the hard facts of life that must be presented as conservation. Milk-and-water bird studies, flower-pressing, and hunting and fishing chit-chat are not enough.

"The public has been misled by constant emphasis on the inexhaustible magnitude of the riches of our continent and the wisdom of getting a share at once," says the National Wildlife Federation. "The folly of such a policy is already demonstrated by the rapid exhaustion of valuable resources and by the waste due to lack of proper management."

"Go and use carefully" must replace "Come and get it" as our national motto.

**Conservation Simplicity.** Conservation, at heart, is not technically complicated. Any attempt to make it so defeats the purpose of conservative journalism. Conservation should be presented in terms of simple interests, skills, morals, and psychology.

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Conservation is best born of curiosity and pride. The 4-H boy who becomes curious about why red pines need more acid than white is closer to conservation than he who writes a prize essay on the dangers of timber famine.\textsuperscript{21}

Conservation journalism must deal with local situations. John Caldwell of the Tennessee Department of Conservation tells this story:

Here is a picture which I wish all of you could see. It is a little country schoolhouse with three rooms, and in the front you see the land cut up with gullies. One day not long ago I stopped by that school and asked the teacher if she taught conservation. She was rather apologetic. She replied in the negative, saying that she did not teach it as she did not have any materials. Yet there were the materials right outside the school door, a whole laboratory for the children.\textsuperscript{22}

Indiana provides another example of the laboratory-at-hand. It is the Wabash Valley. Any child can understand that the song, “On the Banks of the Wabash,” must have been written long ago when the cornfield and the pasture and the pig pen did not crowd the very underbrush off the banks and spill earth and manure into the water itself.\textsuperscript{23}

Conservation education must deal with living nature. The great naturalist Agassiz was fond of admonishing his students to “study nature and not books.” In too many schools today, students learn from picture books of plants and animals, or in labs from dead and distorted specimens. The need is to turn back to the outdoors.

Professor E. Lawrence Palmer of Cornell tells of a young man who had been offered a position as a biology teacher in a normal school and came back thoroughly disgusted because the school had only nineteen compound microscopes. The young Ph.D. was appalled by the suggestion that the students might get better training in practical biology if the whole nineteen microscopes were thrown out the window and the students went outside, too.\textsuperscript{24}

\textsuperscript{23} Clement T. Malan, Conservation of Water, (Lafayette, Ind., 1946), Foreword.
\textsuperscript{24} E. Lawrence Palmer, More Outdoor Education, (Ithaca, N. Y., 1947), 33.
Conservation journalism must be liberal as well as technical. We have about enough conservation experts. We need many more conservation laymen.

Conservation journalism ought to begin at the bottom. The chances are almost one hundred to one that even today's experts arrived at their present stage through a long, slow process starting from a casual acquaintance with some minor, non-technical phase of conservation. The next decade's conservationists are seeded with scrapbooks and cane poles, and not with graphs and high-powered binoculars. The difference between the hunter and the ecologist is one of degree and not of kind. Trigger-itch is the raw material out of which outdoor perception is built.

The Wisconsin teacher's guide to conservation has summed these principles of elementary ecology up very nicely:

Conservation is not a single subject. It is an area of learning, and a way of living. Its facts are found in the sciences, and its applications extend into all fields of study. That instruction which contributes to good citizenship will contribute most to conservation. The involved and specialized aspects of such a vast area of learning cannot be grasped by children. The teacher must so present the work that the pupils will see in their communities and their daily living the facts for the principles of conservation. They must so teach that the pupils will see the effects of soil erosion in the muddy water of the stream, and the gully on the hillside. Here is an opportunity to develop an appreciation and an understanding of national problems from the local experiences of the pupils.

Conservation Facts. Here are some of the formulas which must take precedence in any conservation arithmetic lessons:

1. An understanding of the fundamental concepts of the conservation movement.
   a. That, as we have already said, soil, water, forest, and wildlife conservation are all parts of one inseparable program.
   b. That wildlife must have an environment suited to its needs if it is to survive.

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2* Wisconsin Department of Public Instruction, *Helps in Teaching Conservation in Wisconsin Schools*, (Madison, 1939), 11.

c. That any use that is made of any living resource must be limited to not more than the net annual increase if the essential seed stock is to be continually available.

2. A knowledge of the conservation program in general.28
   a. That these facts are self-evident—(1) primitive America was richly endowed with natural resources; (2) in the process of economic development, a part of this great stockpile is being destroyed.
   b. That these facts are demonstrable—(1) many kinds of wildlife, for instance, can be made to thrive on land in economic use; (2) many more can be accommodated on land not needed for economic use; (3) the ways to dovetail economic use with conservation can be found by research and made known by education; (4) the time for action is now.

3. An appreciation of the fact that the primitive conditions of the America of 1500 cannot be restored and that the job now is to repair the damage as far as possible and put natural constructive processes back to work.29

4. A belief that to promote perception is the only truly creative part of recreational development in America.30

5. A realization that we can only co-operate with nature, not conquer, if we are to survive in a world where the land is the most precious and most fundamental basis of our economy.31 Civilization is not an enslavement of a constant and stable earth. We cannot pacify the earth. She will not be “occupied.” We can only strive to enter into harmonious relationship with her.

The natural resources of our country are like money in the bank. They may be:
   a. Hoarded without benefit to commerce.
   b. Expended unwisely, resulting in economic chaos.
   c. Used to enrich a few at the expense of many.
   d. The primary cause of national and international strife.

Or:
   a. “Developed” for the benefit of commerce.
   b. “Distributed” equitably and carefully.

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29 Ibid.
c. Considered, as far as possible, the heritage of all the people.

d. Used in such a way as to alleviate, if not abolish, national and international strife.

Upon the solution of these problems depends the spiritual as well as the material welfare of the people of the United States.

6. A conviction that conservation is not alone something we do; it is something we feel. When conservation becomes a kind of thinking, a way of life, it takes on real and substantial meaning.\(^{52}\)

“Conservation education,” wrote Aldo Leopold shortly before his death, “reminds me of my dog when he faces another dog too big for him. Instead of dealing with the dog, he deals with a tree bearing his trade-mark. Thus he assuages his ego without exposing himself to danger.

“Just so we deal with bureaus, policies, laws, and programs, which are the symbols of our problem, instead of with resources, products, and land-uses which are the problems.”\(^{52}\)

Conservation journalism is a matter of survival. Humanity must produce and conserve, or starve. It is conservation or catastrophe.

Conservation journalism is a matter of the good life. Wise use of natural resources is essential to the health, wealth, and happiness of people everywhere.

Conservation journalism is a matter of our natural heritage. Our duty is to repair, maintain, and improve the natural endowment intended for future generations.

Time is running out. For educators, scientists, clergymen, writers, sportsmen, businessmen, politicians, and laymen everywhere, conservation journalism in sufficient volume and of discriminating content is a “must” project.\(^{34}\)

**SUMMARY**

The real future of American wildlife lies not in patching up an ailing environment, in mammoth restocking enterprises, nor in helter-skelter game laws, but in so reshaping the American

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\(^{52}\) Fairfield Osborn, *Our Plundered Planet*, (New York, 1948), 256.


sportsman's sense of values that he will go afield to give instead of take, to produce a new perception of his surroundings rather than to consume its crops. Conventional conservation techniques can be only a stop-gap. They will not long withstand the onslaught of 12,000,000 gunners and anglers. Only a reorientation of the sporting spirit will save our wildlife. To say that such a reorientation involves a whole change in the American approach to life does not erase the necessity of the revolution. The immensity of the job is equalled only by the need.

Only the wildlife-conservation journalist motivated by a sound philosophy can make a worthwhile contribution to conservation. He should see that the net purpose of all conservation writing is not the bulging creel nor the motorized conquest of the corners of the country, but is a veritable revolution which will change every American hunter and fisherman from a consumer of wildlife goods to a producer of wildlife appreciation—a revolution which increases his perception and decreases his trigger-itch.

PART III

WILDLIFE-CONSERVATION JOURNALISM POLICIES

INTRODUCTION

So far, we have seen wildlife conservation defined as in large part a journalistic problem. We have outlined principles for wildlife-conservation journalism. What is the upshot? What course of action does this situation-estimate suggest? This chapter presents a point-by-point recapitulation of the case to date and a list of recommended policies for the future.

DISCUSSION

1. Wildlife conservation, wise wildlife-resource use, fish and game management—call it what you will—is essentially the art-science of growing wildlife crops for recreational purposes.1

2. Wildlife conservation techniques differ widely in detail, but all are bent to two ends: the preservation of an adequate

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breeding stock, and the creation of a favorable habitat in which the stock may multiply.  

3. Since favorable wildlife habitat naturally involves soil, water, flora, and other fauna, all renewable natural resources must here be considered in unity rather than as entirely separate categories. 

4. Man is also a part of the wildlife environment, and since his role is anything but passive, the management of fish and game inevitably involves the management of man. 

5. In the era in which wildlife conservation was limited largely to the restriction of take of naturally propagated fish and game, this management of man consisted almost entirely of laws prohibiting excessive hunting and fishing. As wildlife conservation moved into the stage of artificial propagation, the management of man came to include the encouragement of various stocking enterprises. Today the wildlife conservation scientists know that laws and restocking are either without fundamental value or are in themselves not enough to conserve fish and game. 

6. Consequently, the management of man must now take on new ramifications. It must develop (a) a deep sense of wildlife husbandry on the part of the landowner and/or the landcontroller, (b) the perceptive faculty in all Americans and particularly in consuming sportsmen, and (c) the receptivity of landowners and land-users alike to scientifically sound, albeit at times traditionally puzzling, techniques of wildlife management. 

7. Hence the conservation of wildlife and its attendant management of man have passed to a considerable extent out of the exclusive realm of the law courts and the laboratory and into the realm of education. 

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2 Ibid.  
3 Fairfield Osborn, Our Plundered Planet, (New York, 1948), 60. 
4 "The only true development of American... resources is the development of the perceptive faculty in Americans... Let no man jump to the conclusion that Babbitt must take his Ph.D. in ecology before he can 'see' his country. On the contrary, the Ph.D. may become as callous as an undertaker to the mysteries at which he officiates... The farmer may see in his cow-pasture what may not be vouchedsafe to the scientist adventuring in the South Seas."—Aldo Leopold, "Conservation Esthetic," Bird Lore, March–April, 1938, 103. 
5 "There is need for wider diffusion of scientific knowledge, scientific appreciations, and scientific attitudes among all classes of the population... The need is to sell science to the public, to convince the public that science is important and valuable, and to help people assimilate whatever benefits scientific attitudes and practices may yield, through the acceptance and use of science in daily thinking."—Benjamin G. Grueenberg, Science and the Public Mind, (New York, 1935), 180.
8. Wildlife-conservation education can be conducted at the youth level principally in school and college classrooms and at the adult level principally through the public prints.

9. In both cases, although particularly in the latter, there is a transcendant need for the interpreter, who can translate the message of wildlife science into the idiom of the layman,6 and for abundant vehicles for his output.7

10. It is apparent from past experiences that this successful wildlife-conservation translator cannot, except in rare cases, himself be a practicing scientist with no training or prior experience in the techniques and demands of popular writing.8,9

11. It is equally apparent from past experience that this successful wildlife-conservation translator cannot, again except in rare cases, himself be a practicing journalist with no technical background.

12. There is, however, evidence that, by what might be called natural propagation in the wild, it has been possible to produce educators (using the term broadly) possessing that happy combination of scientific knowledge and journalistic proficiency.

13. But such purely fortuitous production of wildlife-conservation interpreters is not sufficient to meet modern needs. How, then, are we, by what might be termed artificial propagation in

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6 "... The preparation of information for popular use requires the services of a trained specialist—a specialist not only with a facility for explaining scientific facts in plain readable, accurate language, but with breadth of view, an aptitude for organization, and a keen and accurate understanding of human nature."—C. W. Warburton, "The Agricultural College Editor," Extension Service Circular 131, (Washington, D. C., 1930), 1.

7 Of the 32 articles on science in Saturday Evening Post issues for the year 1947, not one had even the remotest connection with wildlife science.

8 "The proper appreciation and application of new discoveries is being hindered at present by increasing specialization, employing a terminology and a mathematic apparatus which are intelligible only to a few specialists in some one subject. Anyone who has completed a piece of research may think it necessary to set out his facts for the use of the expert who is working in the same subject, and is familiar with the technical terms and hidden difficulties. Yet such writings make dull and difficult reading for the great majority of those who are interested in scientific study."—Sir William Bragg, "The Unity of Knowledge," Nature, March, 1892, 322.

9 "The failings of scientists in regard to the effective popularization of science are these:

1. Most investigators do not write effectively, either because they cannot or because for various reasons they will not use a style that appeals to the masses.

2. Scientists as a class regard with anxiety and distrust the efforts of laymen to present the findings of science in popular fashion, and some go so far as to refuse altogether to cooperate with newspapers.

3. A minority of researchers care little what the public thinks of their work, have no faith that the masses can be instilled with appreciation for science, and consequently are out of sympathy with efforts to popularize it."—Nieman Hoveland, Popularizing Science, unpublished thesis, Library, University of Wisconsin, 1947, 18.
confinement, to produce wildlife-conservation interpreters in adequate volume and quality?

14. The possibilities, it seems to me, are fourfold:

a. For going outdoor writers, we can set up in strategic spots around the country special institutes, seminars, and conferences which will offer—in capsule form, it is true—courses in the basic and applied sciences of fish and game management.

b. For going wildlife scientists and administrators, we can likewise offer introductory courses in journalism and public relations.

c. For student journalists, we can provide both general curricula in conservation sciences and specific courses or phases of courses in science reporting.

d. For student biologists, we can provide custom-built courses in popular writing and public administration.

15. The net effect of such a dual approach should be to develop journalists with something scientific to write about and scientists with at least some ability to write in the popular vein; and who can co-operate with each other. 

9 A good summary of the matters that must be borne in mind in order to achieve co-operation between journalists and scientists is made by the managing editor of the Buffalo Evening News (who undeniably is somewhat biased in favor of the press):

"The first thing we must recognize is that, in spite of the progress which has been made in more accurate reporting of scientific, educational, and allied activities, there are many in these fields who give little or no credit to the newspapers for what has been accomplished, and by their critical attitude toward newspapers as a whole, without being specific in their objections, make for misunderstanding rather than the co-operation which is essential to still more accurate and sympathetic reflection of the view-points of the specialists.

"It is equally true that, under the sting of some of this lament and criticism, there are newspapermen who demonstrate their impatience by an aloof attitude, so that the net result is to create an atmosphere in which it is impossible to carry on constructive work. We must have tolerance, patience, and understanding on each side. I am certain that you will find newspapermen ready to respond to any reasonable overtures. I think there is work to be done in both fields to bring about a clearer understanding of our respective view-points and aspirations, as well as limitations.

"Many, if not most, newspapermen are socially minded; they sympathize keenly with the scientist who wants his work and that of his associates intelligently interpreted to the public, but in making that possible the scientific group must come out of their shells; they must take a human as well as a scientific view-point; they should have some insight into the newspaper outlook and at least give the newspaper credit, until he proves otherwise, for knowing something about his own job.

"The scientist frequently would appear just as ridiculous if he attempted either to write a newspaper story or operate a paper as the newspaperman often appears to him, when he attempts to explain for the benefit of the lay reader some of the things which even scientists do not understand or about which they disagree. Nevertheless, I observe that some scientists think they know all about newspaper
16. The number of American institutions where such a program could be effectively initiated is limited in all probability to those which have on one campus a reputable school of journalism and a recognized department of wildlife management. The University of Wisconsin is a convenient example.

17. To be specific, I propose the following wildlife-conservation journalism policy for the University of Wisconsin:

a. An annual two-week summer institute for outdoor writers of the Middlewest (possibly in conjunction with an institution for teachers), staffed by experts in the fields of soil, water, flora, forest, fish, and game conservation.

b. A continuing series of late-afternoon or night conferences for the professors in the conservation sciences, conducted by experts in the fields of science reporting and public relations.

c. A double-major sequence leading to the degree of B.S. in Science–Journalism for a select number of students, combining the present journalism curriculum with the present major in the biological aspects of conservation,\(^{11}\) to include an undergraduate seminar in wildlife-science reporting.

d. A share of the journalism course in advanced feature writing (Journalism 105b) devoted to science interpretation.

e. A share of the journalism courses in public relations (Journalism 125 and 221) devoted to science public relations.

f. A share of the journalism course-phase in sports writing (Journalism 2) devoted to outdoor writing.

g. A share of a projected course in advanced reporting devoted to science writing.

h. A share of the journalism course in trade journals and house organs (Journalism 117) devoted to the federal and state bulletin.

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work as well as their own. My experience has indicated that the man who is willing to take time and patience to explain a story to a reporter, who is not a specialist in the same field, usually fares very well in having it reported as he would like to have it presented to the public.

"Too often the scientific man thinks wholly in terms unrelated to those in which he is approached by a reporter who wants a story about the matter in hand. The problem is to reconcile divergent viewpoints; to force both from a high-horse attitude; to bring about mutual respect. Surely, the scientist knows his subject better than the reporter. On the other hand, the reporter knows his limitations of time and space under which he has to work, and should have a clearer idea of how to explain what he has learned to the public."—A. H. Krichofer, Science, 76 : 1984, Aug. 19, 1932.

i. A continuation of the present School of Journalism fellowship in science reporting with occasional encouragement given to the applicant who wishes to specialize in the interpretation of wildlife conservation.

j. Encouragement of continued graduate research in the field of wildlife-conservation journalism. ¹²

k. A course in popular writing and public relations for majors in the biological sciences.

l. A series of publications, suitable for school, press, library, and controlled distribution, on the conservation of Wisconsin's natural resources.

m. An expansion of the wildlife-management section in the semi-annual report of the Agricultural Experiment Station. ¹³

18. Undergirding such a strictly wildlife-conservation journalism policy would of course be an expansion of teaching, research, and public service in all lines of the conservation sciences.

19. Underlying the instruction in all conservation-journalism courses should be this philosophy: that there is no such thing as good English in the abstract, but that there are kinds of English that are good for specific occasions, and that the prime requirement of writing is that it be understood and that it provoke action. The test of every word or phrase in an article should be: “Does this word or phrase give the clearest meaning and set the most appropriate tone for the purpose of the communication?” ¹⁴

20. Underlying the instruction in all conservation-science courses should be this philosophy: that there is an “I” in conservation; that we must hitch conservation directly to the producer-consumer relationship, instead of to the government; that we must cease being intimidated by the argument that a right action is impossible because it doesn’t yield maximum

¹²“I quarrel with the uniform dullness of American scholarly writing today. I quarrel with the system that enslaves the scholarly author and prevents him from being an individual, writing for other than his professional colleagues. And the system that forces scholars into frequently meaningless research projects and further compels the scholar to write of the results, if he is to have promotion and pay, is not only stultifying but a real danger to our intellectual life.”—Joseph A. Brandt, “Intellectual Slave Market,” The Saturday Review of Literature, June 5, 1948, 20.

¹³University of Wisconsin, What’s New in Farm Science.

¹⁴“Our task is to develop a sensitivity to the appropriateness of language in various types of social and personal situations.”—Robert C. Pooley, “The Language of Adults,” Chicago Schools Journal, Vol. XXX, Nos. 5 and 6, January–February, 1948, 136.
profits, or that a wrong action is "OK" because it pays; that it is conscience, in the end, that is the beginning of real conservation.

SUMMARY

No more fitting nor more succinct parable of the problems, principles, and policies in wildlife-conservation journalism could be set down than these words of the late Aldo Leopold:

The (passenger) pigeon lived by his desire for clustered grape and bursting beechnut, and by his contempt of miles and seasons. Things that Wisconsin did not offer him today he sought and found tomorrow in Michigan, or Labrador, or Tennessee; to find them required only the free sky, and the will to ply his wings. But there are fruits in this land unknown to pigeons, and as yet to most men. Perhaps we too can live by our desires to find them, and by a contempt for miles and seasons, a love of free sky, and a will to ply our wings.16

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