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WILDERNESS AND THE SOUTHEASTERN WILDLIFER

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"I believe that at least in the present phase of our civilization we have a profound, a fundamental need for areas of wilderness—a need that is not only recreational and spiritual, but also educational and scientific, and withal essential to a true understanding of ourselves, our culture, our own natures, and our place in all nature" (Zahniser, 1957: 199). When Howard Zahniser made this statement, he summarized for many people the need for wildernesses. Even the eloquence with which he writes cannot produce for us the entire picture of wilderness, its needs, potentials, and demands. What he has left unwritten is for the individual; in wilderness there will always be more than will be expressed or completely understood.

The recent emphasis on wilderness and its preservation has been occasioned primarily by Congressional debate on Senate Bill 1176, more recently S. 4028, S. 1123, H. R. 1960, and H. R. 5523. Never before has so much vocal public opinion been built on natural resource legislation. With the interest in the Wilderness Bill proposals have come for reclassification of primitive areas, and encroachment upon existing wildernesses by dam builders, miners, and livestock interests. The remarkable interest in this phase of the conservation movement has several implications for the wildlifer, the most important of which is the need for deciding just what is our place on the bandwagon, and what part, if any, we shall play.

DEFINITION

A definition of wilderness is difficult, if not impossible, for wilderness is many things to many people. One definition cannot encompass all of its surrounding complex and largely abstract concepts. It is desirable that a definition be presented as a foundation for the paper to follow. The writer defines wilderness as an advanced-succession community in which flora and fauna exhibit natural relationships and in which modern man (as differing from aboriginal man) has had basically no influence. Thus armed with a definition, we can proceed to examine the wilderness movement and the responsibilities and opportunities for members of the wildlife profession within the movement.

SURMOUNTABLE SHORTCOMINGS

Many people have an aversion to wilderness. The mere mention of the word causes immediate distasteful connotations of extremism, waste, and special-group interests. It is regrettable that there are parts of the program for wilderness preservation that cause such feelings. Proponents of wilderness and their opposition alike may well examine some of the fallacies of the program. The writer fears that the same attitude is displayed to proponents of wilderness as to "dicky bird watchers." The latter flippant expression has certain connotations, no matter how unhealthy or undesirable, that are known to all wildlife managers. The ornithologist and the advocate of wilderness have a like quality;

they are esthetes and are rarely understood. Those who are not understood will always be criticized. Everyone is not expected nor perhaps capable of appreciating or enjoying classical music; everyone is not expected to hold the same feelings and appreciation for wilderness. All too often the wilderness proponent expects too much of the public. This expectation is an immediate affront, a serious harm to the movement. The attitude of leaders within the movement must be geared to their audience, an audience that is usually the *general* public.

Wilderness and wildlife have in common the problem of economics. The question "what is the worth of a wolf?" is as difficult to answer as, "what is the worth of a wilderness?" Each of us knows the difficulty of convincing a non-hunting farmer of the value of wildlife on a farm. Insect control and weed seed destruction are pitifully weak values even when added to the beauty of the evening call of the bob-white, the wavering cry of the screech owl, and the whistle of ducks' wings at landing. Wilderness has intangible value and in a materialistic world, people "buy" little of what they cannot touch, or eat, or from which they cannot expect financial gain. The profit and practicality of wilderness are difficult to see and consequently difficult to accept. The approach then, to the materialist, should be to emphasize tangible values of wildlife, watershed management, scientific investigation, and man-days of recreation provided.

To the southeasterner, wildernesses and their associated problems seem very remote; in a physical sense they are. Only 13 of the 164 areas covered by the proposed National Wilderness Preservation System lie east of the Mississippi. The majority of the wilderness areas lie west of the Rockies, distant to four-fifths of the population. (Figure 1.) Even though geographically distant, these areas are "ours" and in an age of jet travel, streamlined expresses, and super highways are quite accessible. The proximity or accessibility of a resource naturally influences the interest in and knowledge of that resource. Realistically, location plays little part in the interest and attention such areas deserve. In a world of constantly shrinking dimensions, the difficulty of time involved in travel to wilderness areas becomes of decreasing importance. The age of an expanding, highly mobile population demands an enlightened regional and national approach to wilderness preservation that considers the factors of time, of anticipated use, of adequate protection, of well planned and coordinated ecological research, and of an abnormally functioning law of supply and demand. "Distance" can no longer be the apron behind which wildlifers can hide their indifference to wilderness preservation.

Through the wilderness concept has many disagreeable connotations and shortcomings surrounding it today, the assembled group will be among the first to recognize with me its desirability.

WILDERNESS VALUES

Values of wilderness are many and they will be mentioned only briefly. The writer would shy from discussing the esthetic values of wilderness for several reasons. Paramount is the fact that most wildlifers are in the profession because they possess a bit of the esthete. If they do not, little said here will add to this personal quality. Esthetes are rarely made; they evolve. Theodore Roosevelt said: "There is nothing more practical in the end than the preservation of beauty, than the preservation of anything that appeals to the higher emotions of mankind."

The Recreational Value:

Recreationally, wilderness provides unique experiences of sight, sound, smell, and action. Perhaps recreational values overlap those values often credited to esthetics; this is no disadvantage. Wilderness recreation is unique and as such it demands consideration for an erupting population with individual tastes for recreation. Man the modern seeks and gains recreation with each encounter with the primitive. Rugged individualism, fast waning in the pale glow of the television tube, has no finer forge or furnace than wilderness.

Our Wilderness Preservation System

NATIONAL FOREST AREAS

ROADLESS AREAS

1 Caribou
2 Little Indian Sioux
3 Superior

WILD AREAS

4 Chiricahua
5 Cucamonga
6 Diamond Peak
7 Galiuro
8 Gates of the Mountains
9 Gearhart Mountain
10 Goat Rocks
11 Hoover
12 Kalmiopsis
13 Linville Gorge
14 Maroon Bells-Snowmass
15 Mount Adams
16 Mountain Lakes
17 Mount Hood
18 Mount Washington
19 Mount Zirkel-Dome Peak
20 San Gorgonio
21 San Pedro Parks
22 Sierra Ancha
23 Strawberry Mountain
24 Thousand Lakes

WILDERNESS AREAS

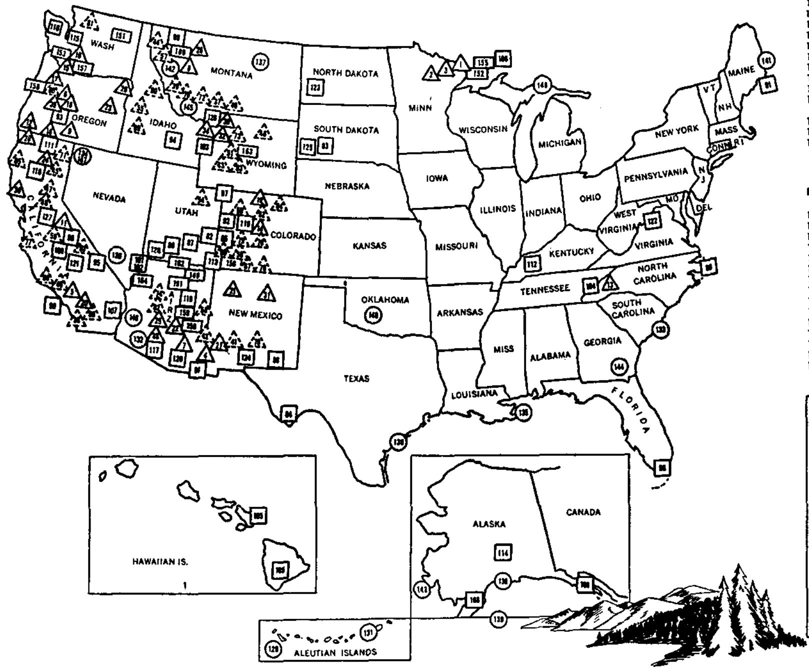
25 Bob Marshall
26 Eagle Cap
27 Gila
28 Marble Mountain
29 Mazatzal
30 North Absaroka
31 Pecos
32 South Absaroka
33 Superstition
34 Teton
35 Three Sisters
36 Yolla Bolly-Middle Eel

PRIMITIVE AREAS

37 Absaroka
38 Agua Tibia
39 Anaconda-Pintlar
40 Beartooth
41 Black Range
42 Blue Range
43 Bridger
44 Cabinet Mountains
45 Caribou Peak
46 Cloud Peak
47 Desolation Valley
48 Devil Canyon-Bear Canyon
49 Emigrant Basin
50 Flat Tops
51 Glacier
52 Gore Range-Eagle Nest
53 High Sierra
54 High Uintas
55 Idaho
56 La Garita-Sheep Mountain
57 Mission Mountains
58 Mount Baldy
59 Mount Dana-Minarets
60 Mount Jefferson
61 North Cascade
62 Pine Mountain
63 Popo Agie
64 Rawah
65 Salmon Trinity Alps
66 San Jacinto
67 San Juan
68 San Rafael
69 Sawtooth
70 Selway-Bitterroot
71 South Warner
72 Spanish Peaks
73 Stratified
74 Sycamore Canyon
75 Uncompahgre
76 Upper Rio Grande
77 Ventana
78 West Elk
79 White Mountain
80 Wilson Mountains

NATIONAL PARK SYSTEM AREAS

81 Acadia National Park
82 Arches National Monument
83 Badlands N.M.
84 Big Bend N.P.
85 Black Canyon of the Gunnison N.M.
86 Bryce Canyon N.P.
87 Capitol Reef N.M.
88 Carlsbad Caverns N.P.
89 Cape Hatteras National Seashore Recreational Area
90 Channel Islands N.M.
91 Chiricahua N.M.
92 Colorado N.M.
93 Crater Lake N.P.
94 Craters of the Moon N.M.
95 Death Valley N.M.
96 Devils Postpile N.M.
97 Dinosaur N.M.
98 Everglades N.P.
99 Glacier N.P.
100 Glacier Bay N.M.
101 Grand Canyon N.P.
102 Grand Canyon N.M.
103 Grand Teton N.P.
104 Great Smoky Mountains N.P.
105 Hawaii N.P.
106 Isle Royale N.P.
107 Joshua Tree N.M.
108 Katmai N.M.
109 Kings Canyon N.P.
110 Lassen Volcanic N.P.
111 Lava Beds N.M.
112 Mammoth Cave N.P.
113 Mesa Verde N.P.
114 Mount McKinley N.P.
115 Mount Rainier N.P.
116 Olympic N.P.
117 Organ Pipe Cactus N.M.
118 Petrified Forest N.M.
119 Rocky Mountain N.P.
120 Saguaro N.M.
121 Sequoia N.P.
122 Shenandoah N.P.
123 Theodore Roosevelt National Memorial Park
124 White Sands N.M.
125 Wind Cave N.P.
126 Yellowstone N.P.
127 Yosemite N.P.
128 Zion N.P.



NATIONAL WILDLIFE REFUGES AND RANGES

129 Aleutian Islands National Wildlife Refuge
130 Aransas N.W.R.
131 Bogoslof N.W.R.
132 Cabeza Prieta Game Range
133 Cape Romain N.W.R.
134 Charles Sheldon Antelope Range
135 Delta N.W.R.
136 Desert Game Range
137 Fort Peck Game Range
138 Kenai National Moose Range
139 Kodiak N.W.R.
140 Kofa Game Range
141 Moosehorn N.W.R.
142 Montana National Bison Range
143 Nunivak N.W.R.
144 Okefenokee N.W.R.
145 Red Rock Lakes Migratory Waterfowl Refuge
146 Seney N.W.R.
147 Sheldon National Antelope Refuge
148 Wichita Mountains W.R.

INDIAN RESERVATION AREAS

149 Black Mesa Roadless Area
150 Black River R.A.
151 Columbia-San Poil Divide R.A.
152 Fort Charlotte Wild Area
153 Goat Rocks R.A.
154 Grand Canyon R.A.
155 Grand Portage W.A.
156 Mesa Verde R.A.
157 Mount Adams W.A.
158 Mount Jefferson R.A.
159 Mount Thomas R.A.
160 Mission Range R.A.
161 Painted Desert R.A.
162 Rainbow Bridge R.A.
163 Wind River Mountains R.A.

LEGEND

NATIONAL FOREST AREAS
1 thru 80
3 Roadless Areas
21 Wild Areas
12 Wilderness Areas
44 Primitive Areas

NATIONAL PARK SYSTEM AREAS
81 thru 128
26 National Parks
20 National Monuments
1 Recreational Area
1 Memorial Park

NATIONAL WILDLIFE REFUGES AND RANGES
129 thru 148
13 National Wildlife Refuges
7 Game Ranges

INDIAN RESERVATION AREAS
149 thru 163
12 Roadless Areas
3 Wild Areas

NOTE: All Areas here shown comprise less than 2½ per cent of the area of the United States.

THE WILDERNESS SOCIETY, 2144 P STREET, N. W., WASHINGTON 7, D.C. JUNE 1957

The Educational Value:

There is a need for wilderness because of its educational value. This value has no dimensions and is difficult to grasp. Bertrand Russell in an essay entitled "Useless Knowledge" elaborates on the current trend to consider that "the only knowledge worth having is that which is applicable to some part of the economic life of the community," and that knowledge is "merely an ingredient in technical skill." This utilitarian point of view of knowledge, and consequently of education, is disquieting, particularly as it relates to wilderness. The educational values of wilderness lie in history, sociology, and science. From the wilderness much can be taught about ways of life, social fibre of citizens, foundations of economy and land development, national and regional maturity and strength, and love of country. These can be learned from books and from teachers, it may be said, but true depth of understanding, appreciation, and enthusiasm will be limited to those who have had wilderness experiences.

The Historical Value:

The historical value of wilderness is very directly related to our field of wildlife conservation. The disappearance of the cougar *(Felis concolor)* or the wolf *(Canis lupus lycaon)* in the southeast is an outstanding reflection of the destruction of wilderness. Such widespread losses are easily seen; local changes are seldom if ever detected because of their seeming insignificance or difficulty of measurement. What is the accumulated change? How can we ever know without discerning research on areas as reference points for these changes? Only in the light of the past can we properly evaluate the present or plan for future resource use. All the wildland study of the past will not equip us with data necessary for tomorrow's land management. Is is fortunate there yet remains a living history for our study and interpretation.

The Scientific Value:

In the scientific values of wilderness lie the concrete significance which today's people seek and tomorrow's citizens will demand from their preserved areas. Wilderness research will supply data upon which a system of wise land use will be built.

It is the writer's opinion that wilderness has more to offer the profession of wildlife management than any other land unit. Recent renewed interest in "basic" wildlife research has taken a bent toward physiological studies of the game animals themselves. This is good, but the "basic" trend should not overlook the needs for knowledge of land physiology and the life histories of "freely functioning" wild populations. It is conceivable that the one constant is wild land. Recognition of the principle that wildlife is a product of the land as used by man, plus realization that this use is the essence of conservation, forces the conclusion that a complete understanding is needed of land and its capabilities. Land capabilities are relative and must be interpreted for the future in the light of the past. The demand for such interpretation far exceeds the supply of data and the knowledge necessary for the task. Today, only generalities can be made.

There is an obvious need for the development of a science of land health in which wildernesses will play a leading role. The father of our profession said ". . . all available areas, large or small, are likely to have value as norms for land science. Recreation is not their only, or even their principal, utility" (Leopold, 1949: 197-98). Dr. Leopold elaborated further saying that the science of land health is yet to be born, that wildernesses assume unexpected importance as laboratories for this study, and that wildernesses are needed as base data of normality, *i. e.,* areas for comparing the performance of healthy with sick lands.

In his own way, Durward L. Allen expressed this concept with: "The wildlife manager especially needs complete wilderness, since the elimination of certain species from the fauna (especially the predators) is so universal that he seldom has an opportunity to study freely functioning relationships. When he can make such studies, he frequently finds that Nature has provided a logical way out of some of his difficulties" (Allen, 1954:334).

What is "fertile" land; what is a "normal" population; what is "over" abundance; what is a "heavy" predator loss; what are the "limits" of intra and inter specific competition; what are (or were) the "natural" causes of population stabilization? All these questions are taken from frequently used statements that are relative. Their answer can only be obtained by relating the unknown with a common denominator. Thus expressions of resource dynamics must also be relative, and this relation finds its lowest common denominator in wilderness. Many of the needs indicated by Hubert D. Burke (1956) in *Wildlife Habitat Research Needs in Southern Forests* will depend upon wildernesses in one or more phases of these investigations. Following questioning of the advisability of continuing a wildlife management program based on so little research (as compared to industries of less worth), Dr. Cottam (1956:8) lists several basic needs of research in the southeast. In the writer's opinion, any of the ten problems or needs he lists has a potential research base on wild areas. Wildernesses are areas for land use research that will not only benefit wildlife but all renewable natural resources.

Consider the implications and value of wilderness area data on the following subjects as applied to present southeastern wildlife problems: Soil characteristics including water relations, fertility, macro and micro associations, trace element content, and nutrient availability under natural conditions; forest characteristics including growth, understory and overstory successions, insect influence, decomposition and soil building, animals relationships, mast production, and tree disease; and the characteristics of virgin animal populations including sex ratios, productivity, breeding characteristics, home range, competition, and local population dynamics.

The pendulum of wildlife management research and interest swings ever more strongly toward water and its management as related to wildlife. Not only are the efforts of land encroachment, but of water encroachment, on our wildlife resource daily becoming greater problems. The need for cooperative studies in land use, watershed, and wildlife management looms particularly large in the southeast where urban sprawl runs rampant. Dils (1957:20) emphasized the needs for thorough research on the utilization, supplementation, and management of water. He was particularly emphatic about the needs for research into the hydrology of watersheds. "The extent that better land management can reduce surface runoff and erosion, and thus reduce stream turbidity, is not known. Basic studies in stream ecology would certainly seem valuable in solving this phase of the pollution problem" (Dils, 1957:27). Basic ecological studies such as should be conducted on wilderness areas besides being essential pollution control information, must discover the significance of natural erosion, of soil water holding capabilities, of relation between atmospheric and ground temperatures and soil, and of fish production, growth, and population dynamics under natural conditions. The need, the possibilities are great.

Though we already have many designated wilderness areas, there are areas remaining within the U. S. that yet retain their unique primitive character and need legal protection. More important than the designation of new areas is the perpetuation and use of the existing ones.

There are nine U. S. Forest Service Natural Areas east of the Mississippi (U. S. Department of Agriculture, 1949:883) that have been established primarily for scientific study, investigation, and education. It is regrettable that more study of such areas has not been encouraged. Changes that take place in nature are often so subtle that they go unnoticed for many years. When they are discovered it is frequently too late to properly evaluate either cause or effect. The forest grows slowly, patiently. It is with this same patience that scientists must seek the truths that the wilderness hides by long-range, comprehensive studies. The Quetico-Superior Wilderness Reserve Center is carrying on such studies. Unless this work is done, there will come a time for shutting the barn door and the horse will be gone.

Wilderness as a land laboratory deserves the support of the southeastern wildlifer. Our support is important because we can see and most effectively express the needs and values of wilderness to that segment of the population that does not appreciate wilderness for its scientific value.

AS A MANAGEMENT TECHNIQUE

The establishment and maintenance of permanent wilderness areas of climax vegetational types assumes importance as a management technique for providing at least seasonal food and habitat requirements for many of the more important game species—bear, deer, turkey, gray squirrel, bobcat, and raccoon. Providing a "habitat refuge" is a passive technique of management requiring no capital outlay and little supervision, but offering possibilities for large forest and swamp management in keeping with the multiple-use concept.

RESPONSIBILITIES

Southeastern wildlifers must be quick to realize that wildernesses are where you find them; they cannot be selected and positioned like picnic tables to meet the demands of the vacationing public. The status quo is all we can hope to maintain; the pristine forest cannot be created. Interest in private and personal gain can often imperil a wilderness because such areas are frequently rich in resources. A quota to make, an access to secure, a fee to gain, an ore to move—all show pitifully small when compared to the total, the long-term benefits and value to be derived from such areas.

Southeastern wildlifers have several responsibilities regarding wilderness which are inherently theirs. As leaders in the conservation movement they must guard existing wilderness areas by their writings, speech and political influence; they must see that areas necessary for the development of a science of land health are available for that developing science; they must encourage scientific studies on existing wildernesses and natural areas not only to discover the secrets of such areas but to show their research potentials as a concrete value; and, they must see that the information obtained is interpreted and applied for the wise use of our renewable natural resources.

Whether the value of wilderness to you is recreational, esthetic, educational, historical, spiritual, cultural, scientific, or all of these, you will agree that any one is justification for wilderness preservation through the active interest, and support of the entire field of wildlife management.

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