

PRESIDENTIAL ADDRESS

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CONSERVATION

From a Biological Standpoint

Oklahoma was one of the last states in the Union to be brought under civilization of the plow share. It was also one of the last states to remain populated with a rather cosmopolitan species of wild animals and fish. Being centrally located in the United States it can be seen, therefore, that it was a sort of a final focal point, because the incoming people along all radii depended to a marked extent upon the local wild plants and plant fruits and animals for subsistence and even commercial profit! Land was despoiled of native vegetation by the ax, plow and fire. Overgrown prairie land and timber land, the rendezvous of hundreds of wild animals was burned in order that the latter might be exposed to the deadly weapons of the huntsman, or trapped in his snares.

This was truly a ruthless conflict between man and nature. Many buffalo skeletons have I seen which represented carcasses from which the skin only had been taken. Herds of these buffalos and antelopes, deer, bears, coveys of quail, prairie chickens, wild turkeys, geese, ducks, cranes, swans, fish, and the occasional coyote or wolf and many other animals each in its own natural environment of water, grass, thistles or timber steadily passed in one way or another and frequently unnecessarily disappeared from the scenes of earthly action. Such an outdoors as this which prevailed forty or fifty years ago caused ones heart to actuate in such a manner as to force its blood through the various innermost recesses of the body so that the latter tingled with a health beyond the needs of a doctor's care. So pure was the atmosphere, and free from malignant germs that fresh beef cooled by its zephyrs could be naturally sweetly and permanently cured.

In the fields of these animals were, in their season such wild nuts and fruits as acorns, walnuts, hickory nuts, pecans, plums, persimmons, pawpaws, grapes, huckleberries, cherries, dewberries, blackberries, strawberries, gooseberries, hackberries, currants, haws, also wild onions, greens, mushrooms, slippery elm bark, holly, mistletoe, and other nuts, fruits, and plants, some of a medicinal nature and especially some of vast economical import-

ance such as railroad and building timbers. Even wild honey was available in the forests.

But how is this now? The air is here and the soil, though badly displaced is here. The rivers, formerly navigable, and also the creeks, many too deep to be fordable have practically reached grade. The former surface of many farms has filled up the rivers formerly teeming with fish. During this removal of vegetation which furnished food and shelter for terrestrial life, the water has not only been displaced with soil and charged with sewage but has been polluted with sawdust from the mills that were used in despoiling the forests.

This water, in some localities, has been lubricated with wasted oil which not only destroyed vegetation to a marked extent in oil fields but also along its borders. On these waters it formed a blanket which smothered the aquatic life and also prevented aquatic birds from getting proper food without its being so medicated that it was injurious. The contact of the oil with their feathers rendered them useless for flight. Instances are known where wild geese have been captured alive because their feathers were so encumbered and bedragled with oil from the surface of the water that they could not fly.

In addition to this has been mineral pollution from coal, lead, and zinc mines and from smelting plants. Truly the streams of our state have been examples of abuse, and as a climax it seems that man has not been satisfied with such natural sources of aquatic life destruction but in many instances has resorted to the use of dynamiting streams and lakes in order to wrest any remaining morsel which nature may have had under their protection.

Such conditions are truly lamentable first because of heedless waste and second because we now have better accommodations for travel and sight seeing, excellent camping equipment, good roads. It is now a case of being all dressed up and no place in our own state to go, because there is little of nature of the inviting kind left to see and enjoy.

It has been estimated that we spend \$50,000,000 annually for travel elsewhere to enjoy the things and see the sights similar to those once prevalent in our own state. As I seek for words to formulate an apology to the present generation of nature lovers, aerists, the auto speedsters and radio bugs, or to pacify the movie fans, all of whom are prevented from communing with this wonderful panorama of nature as it previously existed, there comes to my mind this brief, pithy and fitting quotation taken from

Sprague's "American Indian."—"Not many generations ago, where you now sit, encircled with all that exalts and embellishes; the rank thistle nodded in the wind and the wild fox dug his hole unscared." This transition from the wild fox stage began about 1850 and gained its ascendancy during the decade 1890 to 1900, then steadily declined until the present time.

Fellow members, the Oklahoma Academy of Science was founded at a time (1909) when we could have done much toward the preservation of our native scenery and its natural inhabitants had we been sufficiently thoughtful and powerful. Unfortunately no civic organizations existed such as the Rotary Club, Lions Club, Boys Scouts club, Girl Scouts club, and last but not least the I. W. L. of America, which were adapted for administering to the necessities of the occasion. Some popular ideas of procedure such as fostered by the Audobon Society and Women's Federated clubs were developing. Some agnostics were advising the use of the camera instead of the gun for shooting game. Agriculturists were willing to close the hunting season entirely.

It is certainly fortunate that the phantom of Izaak Walton, has appeared in the form of the I. W. L. A. Its cooperative tendencies throughout the country is such that Oklahoma can well afford to be guided by it as a leading organization to recoup herself. Pennsylvania, a much older state, shows a good example of what can be done. A brief perusal of data indicates that its game under proper care has begun to give results and that a surplus was taken last year, 1923, as follows:

Deer, 7,500; bear, 900; wild turkeys, 2,000; and small game animals, 1,000,000.

There are thousands of acres of land in Oklahoma that would be far more valuable as game preserves and public resorts than for anything else if properly developed along scientific lines.

The Oklahoma Academy of Science should certainly be a true willing tongue, a living right hand and eye for accelerating and moulding modern Waltonian ideas into public opinion, so that the day may soon come when a fish can dwell in pure water or a song bird have a place to build a nest and rear its young to maturity as well as to sing a song.

One might think that such men as own ammunition factories would attempt in every way possible to prevent conservation as fostered by the I. W. L. A. But would they profit by such action? Could a local transportation company profit by conveying from its boundaries all articles of production, so that no future carriage would be necessary? Certainly not, and for similar

reasons manufacturers of fire arms and ammunition or fishing tackle do not advocate the extermination of game and fish but rather the very methods of procedure as advocated by the I. W. L. A. They desire to follow scientific methods of procedure. Their cooperation is not only of far reaching importance but is dependable, desirable and extremely necessary, notwithstanding the fact that they have in some instances been prevented by certain societies from giving assistance because of their peculiar vocations. The Audobon Society is or has been a very popular organization. Too often unfortunately, its supporters have been misled by popular one sided ideas for the protecting of nearly all species of birds, with the result that some injurious birds have multiplied at the expense of beneficial forms. In this connection, should be mentioned such injurious forms as the crow, the sharp shinned hawk, Cooper's hawk, the blue jay, and the road runner, which if continuously protected would exterminate some of the more desirable and beneficial forms. Women's Clubs are fine nursing cradles for developing proper procedure along the lines of conservation and for training young persons to respect the rights of others. The opportunity of stressing our support to women's organizations should not be overlooked.

We have some peculiar unbalanced conditions that should be remedied from the standpoint of trespass. No land owner ought, it seems to me, feel the least bit morally obligated to cooperate in such an enterprise as to continually make a goat of himself and his family. If a merchant or his son are to take the privilege of hunting rabbits in a farmers field, breaking his fences, overrunning his crops, pocketing his pecans, etc., I can see no reason why a farmer or his son might not hunt rats and mice in the merchant's store overrunning his cabbages, dried peaches, pocketing his candy, apples, etc.

There have been instances in farmers meetings were a continuous closed season was advocated on quail, and even a tax of \$50.00 per head on bird dogs. It goes without saying that such procedures only stifle development toward conservation. The \$250,000 now in the Fish and Game department for the propagation of fish and game would not be there if such conditions as above suggested prevailed. With no open season or privileges on the part of the nature loving people of the state there would be no inclination for conservation, no funds and finally no fish or game, or public resorts fitting to the occasion and the present unbalanced conditions would become worse than they are and no remedy could be brought about. For instance we have an

over supply of grouse commonly known as prairie chickens in the northwestern part of the state which are entirely extinct in other parts. We should have such a game administration as will equalize this over and understocked condition. Procedures of recovery and propagation should be made, along scientific lines.

The U. S. Bureaus of Biological Survey and Fisheries have done much in the diffusion of knowledge and advice relative to the proper care of national parks and reserves. The Migratory bird act is an illustration of the fine results that have been concluded by the Federal activity.

Restocking with fish must be done in a scientific manner. Much has been done by the U. S. Bureau of Fisheries toward restocking of waters. Their work is parallel to and cooperative with such state work as is needed in Oklahoma. The state, however, should become more independent and not rely entirely on what others may do for it. We must study and develop our local conditions.

Only recently it has been ascertained by the Entomological Department of the A. and M. College and Experiment Station that newly hatched fish amount to little or nothing when shipped from hatcheries for restocking purposes. The best results appear to come from the use of fingerlings. The reason for this is not altogether obvious, but it is thought that fingerlings are better able to adapt themselves to new surroundings and consequently protect themselves from larger fish which may prey upon them.

Again the Entomological Department has ascertained the fact that red murky pond waters of Oklahoma can be clarified and made habitable for fish and usable by domestic animals and even household purposes by the dissolution of 25 pounds of copper sulfate per acre of water four feet in depth. Much of this murkiness and muddiness of our waters is due to soil erosion, which has been brought about by the devastation of forests, grasses and similar soil binding plants. The proper terracing and farming of land will prevent this rapid erosion and deposition of soil in our river beds. Even now county agents are busy along these lines throughout the state.

When these scientific principles are ascertained and mastered by land owners, waters may be impounded and large tracts of land now lying idle can not only be converted into more useful purposes but the stored moisture will be available for many uses such as irrigation, regulation of temperature and the attraction of wild water fowl and the development of fish.

Now the relation of the Oklahoma Academy of Science to

this problem of conservation which is being expounded by the I. W. L. A. is of far reaching importance. The Academy's sixteen years of existence has been as active along various lines perhaps as its financial ability would permit but the people of the state know little or nothing of its capabilities or capital stock. (The State Legislature has apparently never had an opportunity of properly ministering to it.)

The I. W. L. A. is an organization having wonderful potentialities, significant of maintaining for the present and developing for the future, an out of doors that should make it unnecessary for extended wanderlust on part of Oklahoma citizens. Our students, it seems to me, should be taught to not only have a regard for preserving of public buildings and respecting the rights of others but also should highly regard universal ownership of the gifts of nature such as fish, game, woodlands and public parks just the same as they are taught to have respect for the flag that floats above the school house or the church and school which expound the correct principles upon which to build a righteous life.