the term that an artist does: the actual creation of a meaningful concept, whether in paint, photograph, or words, whether as educators or publicists. Biology does not need to be dreary and game management isn't necessarily dull. We are not engaged in cloudy issues but we too frequently project those issues upon a screen of fog. Our "communicators" need to create clear and comprehensible views of the department's programs and problems.

May I swing off target a little to add that a responsibility of the administrator is to avoid stifling creativity in his I-E section, while still retaining enough objectivity to recognize the difference between cuteness and aesthetcs.

Let's see: I seem to have said that I-E sections should have the responsibility for:

1. Leadership in public relations training for everyone in the department;

2. Interpreting the department's programs, views and dreams to all the public that can possibly be brought into the discussion;

3. Advising administration on public thinking and reactions, and keeping administration posted on sociology;

4. Providing a well-rounded background against which the director may view proposed programs to see if they really fit;

5. Forcing other members of the departmental hierarchy to ask themselves and their associates the really searching questions; and

6. Creating an understandable picture for the public out of the shifting patterns of research, enforcement, desires and dreams that the other professionals have devised in their specialized fields.

After all this, there seems to be little need for adding that I. and E. ought to put out a readable magazine, usable news releases, interesting motion pictures, viewable exhibits, entertaining radio news, meaningful messages in pamphlets, and stimulating aids to conservation education.

There may be an unanswered question in your minds—along with the other thousand—about where you can view a conservation agency whose I. and E, people both accept and are given these responsibilities. The answer is, quite right at home, except for one massive failure: coordination. Few I-E departpossibly, right at home, except for one massive failure: coordination. Few I-E, departments properly carry out their responsibilities—but still fewer have ever been told these are their responsibilities.

Good I. and E. demands adequate personnel, living wages, sound budgeting and, above all else, close liaison. These will not solve all conservation problems; an I-E unit is only one of the administrative tools. But it is a sharp spade that too many—perhaps even most—states are letting rust.

WHERE ORGANIZED SPORTSMEN FIT INTO THE OVER-ALL CONSERVATION PICTURE

By Thomas L. Kimball *

Executive Director, National Wildlife Federation

Organized sportsmen have played a leading role in the American conservation movement ever since there was such a movement. In fact, organizations of sportsmen were working to protect wildlife and other natural resources long before Gifford Pinchot dreamed up the word "conservation" and, with the help of Theodore Roosevelt, added it to our vocabulary.

For example, the New York Association for the Protection of Game was organized in 1844, the Massachusetts Game Protective Association came into being in 1873, and the well-known and still active Boone and Crockett Club began its effective game preservation and restoration efforts in 1887. The term "conservation"—said to have been derived by Pinchot from the British Civil Service colonial office's position title of "conservator"—wasn't applied to natural resources until 1907.

* Mr. Kimball is a former director of the Arizona and Colorado state game and fish departments.

It is entirely possible that those of you in this audience employed by government game and fish management agencies owe the existence of your agencies and indeed your jobs to the efforts of organized hunters and fishermen. Our 50 million hunters and fishermen are indebted to their forerunners who banded together to fight the political and economic forces that otherwise could have wiped out the entire wildlife resource.

To those who would outlaw recreational sport hunting in America today on the grounds that it is unfair to non-hunters who would rather just observe and photograph wildlife, we can say that without the dedicated efforts of organized hunters at the turn of the century and during the first half of the present century there would be much less game left in America to observe and photograph. Sportsmen, in addition to fighting the battles for protective legislation, have assumed all but a minute proportion of the financial burden of supporting needed wildlife protection, research, and management programs. This burden is in the several-hundred-million-dollar category.

And, incidentally, to those who contend that scientific wildlife management, including public participation in the removal of the annual biological surplus, should be *verboten* in all units of the National Park System, we would suggest they look to their history books where they would find that it was through the efforts of the Boone and Crockett Club—a small but influential group of well-to-do big game hunters headed by Theodore Roosevelt—that Yellowstone National Park, established in 1872 but then forgotten in terms of protection, was made an inviolate widllife sanctuary in 1894.

Therefore, it was the organized big game hunters themselves who set the precedent for making wildlife sanctuaries of the national parks. At the time Yellowstone was made a sanctuary there was good reason for complete protection of the game. The park superintendent had fed his crews on bison and elk from the park. The park contained practically all that were left of the wild bison in the U. S. as well as the largest elk herds in the country and many beaver, which had been practically exterminated by trappers elsewhere. Prior to 1886 when the U. S. Army took over administration of the park, poachers and market hunters had roamed the park at will, slaughtering elk and bison.

But was the "inviolate sanctuary" concept intended to rule out future game harvests once repopulation under protection had taken place? Listen to Theodore Roosevelt's ideas on the subject, taken from a letter written on January 7, 1915 to Boone and Crockett Club member Charles Sheldon:

"While our first duty is to conserve Wild Life yet . . . where, as with the elk of the Yellowstone . . . the animals are now multiplying to an excessive degree, it is wise to encourage their killing by sportsmen. . . . You should emphasize the need of a heavy killing of elk that have their summer homes in the Yellowstone Park. If they are not killed, they will die of disease and starvation; and there will be infinitely more misery. Under no circumstances will the shipping of elk to other places be an adequate solution. . . For some years to come from five to ten thousand elk can be killed yearly with great advantage to the herd."

The upshot of this was the Boone and Crockett Club's statement in 1916 asking for employment of scientific management of the Yellowstone elk herd, including removal to keep the herd in balance with its food supply. So you might say that, while the Boone and Crockett Club's suggestion for an emergency closure of Yellowstone Park to hunting was adopted with enthusiasm, its following recommendation regarding public participation in the removal of surplus animals once the land's carrying capacity had been reached stuck in the throats of park protectionists and has continued as a bone of contention in national park management policy right up to the present.

I'd like you to delve with me into a little more history now, in terms of what the efforts of organized sportsmen have meant in the over-all conservation picture, and then we'll take a look at present problems sportsmen's groups are grappling with and what the future holds in this respect.

To the Boone and Crockett Club must go the laurels for being the first national sportsmen's group to influence the course of history to any degree. Composed of only 100 members—primarily New Yorkers at first, and including many important political figures—the club: -regarded Yellowstone National Park as its personal charge and saw to it that the park's wildlife was extended complete protection;

-demanded that the forest preserves (now the national forests) be made wildlife sanctuaries, then modified its view to urge the opening of the forest reserves to regulated use under trained government foresters, backing the creation of the Forest Service in 1905;

-started the drive for national wildlife refuges for big game animals culminating in the establishment of the Wichita Mountains Wildlife Refuge in Oklahoma in 1905 and the National Bison Range in 1908;

—eliminated market hunting by being the first group to make a public outcry for the total prohibition of killing of game for profit and working for the passage of the Lacey Act in 1900 which made the interstate shipment of game killed in violation of state laws a federal offense and which was enforced by the embryonic Biological Survey, now the Fish and Wildlife Service;

-was one of the prime movers behind the creation of Glacier National Park in 1910; and

-worked to get the Alaska Game Law of 1902 passed to protect Alaskan wildlife.

Together with other, later-established sportsmen's organizations and other groups, the Boone and Crockett Club used its influence to encourage the setting up of non-political game administrative machinery in the states, to see to the establishment of Mount McKinley National Park, and to back Congressional approval of the migratory bird protection treaty with Great Britain.

Joining the fray in 1911 was the American Game Protective Association, the first sportsman-supported national organization with a full-time professional staff. Its sole purpose was to promote wildlife restoration programs to preserve recreational hunting. This is the organization that initiated the annual American Game Conference, now known as the North American Wildlife and Natural Resources Conference and now sponsored by the Wildlife Management Institute.

"What shall we do to save our fishing?" was the question asked by Will H. Dilg at a meeting of 54 concerned and public-spirited anglers in Chicago in 1922, and their answer was the formation of the Izaak Walton League of America.

To the "Ikes" goes the credit for the establishment in 1923 of the 300,000acre Upper Mississippi National Wildlife and Fish Refuge. The League also provided funds for the purchase of 2,000 acres of winter range for the Jackson Hole elk herd which is now the National Elk Refuge. Together, the Boonc and Crockett Club, the American Game Association and the Izaak Walton League pushed for scientific game management on the national forests after the Kaibab deer die-off in Arizona in 1923, and supported the National Conference on Outdoor Recreation called by President Coolidge in 1924. Among the revolutionary resolutions to come out of the National Recreation Conferences, which were held annually until 1929 and attended by representatives of some 128 organizations, were those which:

-urged acceleration of conservation education at every level;

-suggested the signing of a migratory bird protection treaty with Mexico; -supported the establishment of a system of national wildlife refuges and public hunting grounds;

-deplored the indiscriminate drainage of wetlands;

-discouraged predator extermination campaigns; and

—asked for the development of "nonpolitical state game commissions with quasi-legislative powers and with trained personnel, long tenure of service, and broad administrative power."

The battle for the creation of a national wildlife refuge system, begun in earnest in 1924, was won after a fashion in 1929 with the help of the newly organized American Wild Fowlers organization. The Norbeck-Anderson Act passed by Congress that year provided for a system of inviolate wildlife refuges nationwide, to be purchased with funds appropriated from the general treasury. Little money was appropriated for this purpose, however.

It was the American Wild Fowlers, with Nash Buckingham serving as field secretary, which provided the funds for Biological Survey biologist Frederick C. Lincoln's pioneering waterfowl banding and migration studies which resulted in the management of our continental waterfowl populations by flyways. The Wild Fowlers eventually merged with the More Game Birds in America Foundation which became Ducks Unlimited, the organization which has done so much toward restoring portions of the waterfowl breeding grounds in Canada.

Sportsmen's organizations were behind the establishment of Bear River Waterfowl Refuge in Utah in 1928, Grand Teton National Park in 1929, Great Smoky Mountains National Park in 1930, and the organization of the Quetico-Superior Council in 1930 which led to the establishment of the Canoe Wilderness Area in northern Minnesota.

In 1931, under the leadership of Ding Darling, who was to become chief of the Biological Survey and first president of the National Wildlife Federation, the organized sportsmen of Iowa pressed through a state law—the first of its kind—removing the state's conservation department from political influence. The need then for a training school to supply the state with competent biologists led to the establishment of a school in fish and game management at Iowa State College and eventually to the national Cooperative Wildlife Research Unit Program.

The American Game Association was among the sportsmen's groups which won passage of the Migratory Bird Hunting Stamp Act in 1934—the act which, as amended to increase the fee and further restrict the uses to which the receipts can be put, has provided the funds for the purchase of our nationwide system of national wildlife refuges.

During the 'twenties and early 'thirties sportsmen's groups sprang up by the thousands over the nation. Most of them were interested primarily in local and regional matters, but some were groping for answers to national wildlife management and conservation problems. A federation of these sportsmen's clubs was proposed as a result of a North American Wildlife Conference called by President Roosevelt in February 1936, and on February 5, 1936, the National Wildlife Federation was formally organized.

Many of the individuals active in the formation of the National Wildlife Federation saw the so-called Pittman-Robertson Act passed in 1937 which, through earmarking of the excise tax on sporting arms and ammunition, has channeled more than \$250 million into state wildlife restoration activities.

The National Wildlife Federation began its annual sponsorship of National Wildlife Week in 1938, and President Roosevelt gladly issued a proclamation establishing it. Designed to focus public attention on the importance of our natural resources and on the broad and pressing problems of conservation, National Wildlife Week has grown in popularity through the years and promises to attract even more attention in 1963 with a theme aimed at discouraging the careless use of extremely toxic insecticides, pesticides and herbicides. We are counting on you state "I and E" people to help our affiliates get this important message across to the public next March... and may I say at this point that we deeply appreciate your past assistance.

In recent years, organized sportsmen's groups have added many feathers to their caps in terms of conservation accomplishments, on local and state, as well as national levels. With the backing of sportsmen, water pollution abatement has been effected, soil conservation practices have been adopted, anadromous fish run-destroying dam construction has been fought (but not very effectively), true multiple-use of the nation's public lands is becoming a reality, and the teaching of conservation in the schools has been encouraged. New wildlife refuges continue to be established with sportsmen's club help—the Key Deer Refuge in Florida might not have become a reality in time had not the Boone and Crockett Club and the National Wildlife Federation stepped in with financial and publicity assistance. And the passage of the Dingell-Johnson Act through Congress in 1950, which provides millions of dollars annually for the wise management of the freshwater gamefish resources of the various states through an excise tax on fishing tackle, was made easier by the unanimous approval of organized sportsmen, as well as the tackle manufacturers.

The National Wildlife Federation, as well as many other conservationoriented organizations, keep the nation informed on conservation issues. Our Washington Staff, for example, reads the titles of some 20,000 bills or resolutions during the two sessions which constitute a Congress and gets copies of approximately 3,000 bills for summarization in the *Conservation Report* which the Federation publishes weekly while Congress is in session. And our 51 affiliate organizations attempt to do a similar job on the state level to alert their members to state conservation issues of interest. Our emphasis on the national level is for conservation education and for coordinated activity among conservation organizations. Our conservation education activities in addition to the *Report* include the publishing of the semimonthly newsletter, *Conservation News*, dozens of educational bulletins for teachers and children as well as sportsmen on basic conservation topics, and starting next month, the publishing of a beautiful new color magazine, *National Wildlife*, which we hope will carry the conservation message eventually into hundreds of thousands of homes across the country. National Wildlife Week is a conservation education project; it provides an ideal opportunity each year to get a specific conservation problem into the classroom and the club meeting. And the National Wildlife Federation's television public service announcement films are putting conservation ideas into the heads of millions of American televiewers. Newspaper readers get the message via the Federation's semimonthly press release service which, I hope, is also of use to you state conservation magazine editors.

To encourage inter-organization coordination, the National Wildlife Federation sponsors a conference on national conservation issues at our Washington headquarters each December at which the representatives of all interested groups, including the women's clubs and garden clubs, get a chance to air their views and justify their positions on resource management issues. As far as intra-organizational coordination is concerned, our five regional field men are available to provide our state affiliates with an explanation of current problems, and our monthly *President's Letter* publication reports affiliate goings-on to all our state people.

The National Wildlife Federation supports in principle a program at the state level to keep private land open to public hunting which benefits both sportsmen and industry. Let me give you a little background on it.

Every year private landowners suffer considerable losses due to vandalism on the part of a small minority of hunters, fishermen and other outdoor recreationists. Fires started by these alleged sportsmen either accidentally or maliciously, result in loss of timber, tree reproduction and time and money spent in controlling and extinguishing the blazes.

Furthermore, inadequate harvest of game over land holdings in some areas has caused sharp increases in wildlife populations and, consequently, increased losses of seed, seedlings, and valuable ground cover. Biologists have found that an adequate and evenly distributed game protects the environment and accelerates reproduction.

In the Pacific Northwest alone, \$15 million is the estimated annual cost to taxpayers, sportsmen, and timberland owners due to the "voracious appetite" of the forest wildlife. The U. S. Forest Service estimates that a single porcupine can do up to \$6,000 worth of damage in its lifetime. One large forest landowner estimates that annual losses on his tree farms is \$1 million due to all forms of wildlife, excluding insects.

In attempts to improve public relations and reduce fire incidence, vandalism, and damage by wildlife, many forest landowners are opening their properties for various recreational purposes. These range from hunting and fishing to rock hunting and fern picking. In some instances there is even a small revenue realized by the landowner.

The opening of lands, however, presents problems. There is a considerable amount of supervision and maintenance involved. Many roads which might not have to be maintained require attention; camp grounds, if available, must provide water an dsanitation facilities; stoves and tables require continual limited maintenance, even when properly treated by the public. Costs of normal wear and tear, in addition to patrols and maintenance crews, run into money.

In order to help one forest landowner open his land to the public, the Louisiana Wildlife Federation, a state affiliate of the National Wildlife Federation, signed a memorandum of agreement with the Olin Mathieson Chemical Corporation in 1959 as part of the new Federation and Industry Recreation (FAIR) program. Under this agreement, the Louisiana Wildlife Federation, its member clubs, and Olin Mathieson are working together to develop 405,000 acres owned by the latter, for camping, fishing, hunting, and other recreational activities for the entire public. Responsibilities are shared and the public is doing something to help industry with its land management problems. In brief, the Memorandum of Understanding signed by the participants specified that Olin Mathieson would give its permission for general public recreational use, and the Louisiana Wildlife Federation would seek to inform the public as to the existence of this project and to promote and develop recreational facilities upon the property. Last year, 1961, the Ouachita Conservation Club, local chapter of the Louisiana Wildlife Federation, erected tables, grills, and a shelter on the Ouachita River at a site approved by Olin Mathieson. This year the site is to be improved by adding another shelter and by constructing a boat-launching ramp.

Also, in 1961, four major landowners in southwest Louisiana joined the FAIR program and opened over 300,000 acres of land to public recreational use. Those companies participating in the program are: J. A. Bel-Quatre Parish Company, Crosby Chemical Company, Edgewood Land and Logging Company, and Powell Lumber Company. Latest information received by the National Wildlife Federation indicates that a similar FAIR project is now being planned for Georgia. This project will be located in Clinch County on approximately 90,000 acres of forest land owned by International Paper Company. As in Louisiana, this venture will be supervised by the National Wildlife Federation affiliate, the Georgia Sportsmen's Federation and its local chapter—the Clinch County Sportsmen's Association. A spokesman for the Georgia Federation states that several other large landowners in the vicinity are ready to join the program as soon as it gets under way. St. Marys Kraft Corporation, St. Marys, Georgia, has expressed a desire to incorporate their lands in Georgia and Florida into the program.

There are many ways other than through the FAIR program that the more than 8,000 separate clubs affiliated with the National Wildlife Federation, as well as other independent organizations, can be of help in the over-all conservation picture. There are a multitude of conservation issues which need attention.

The Secretary of Agriculture has estimated that 50 million fewer agricultural acres will be needed by 1980. He has estimated that, by 1980, 5,000,000 acres now producing crops could be shifted profitably to farm recreation enterprises while another 18 million acres could be used primarily for recreation or wildlife. Millions of city people need additional recreational opportunities, but can they and the farmers be brought together? Some farmers or landowners do not want to be bothered by visitors. There are problems of liability, depreciation of recreation facilities, and vandalism.

There seems to be little question but that private landowners will be increasingly important in providing hunting and fishing and other forms of outdoor recreation. Organized sportsmen, on both the national and local levels, must work more closely with farmer groups to attain mutual objectives.

How about water supplies in 1980? The Senate Select Committee on National Water Resources recently estimated the nation must approximately double the capacity of its water conservation facilities by 1980. This will require huge planning projects. We shall have real opportunities, and difficulties, in mitigating losses to fish and wildlife resources as these water resource developments are planned. We need to develop right now a list of streams or wild rivers which possess outstanding scenic or recreational values and then the entire nation must be sold that recreation priority is in the public interest. Without some reservation and preservation of our American outdoor heritage we can look forward to an era when the populace resorts to taking stupidity pills as the only means of existing in an asphalt jungle; a country of continuous urban areas, polluted air and water, and plundered resources.

We believe it is imperative that all who are interested in conserving natural resources be well organized. There is a real need to stimulate every individual who has an interest in the conservation of natural resources to devote time, talent, and finances to the protection of them—the basic wealth of our nation. We are working to convince our affiliated organizations that, without good leadership and operating funds, no organization can be successful or effective, and that our clubs should broaden their scope of influence. The boatmen, archers, target shooters, field trial enthusiasts, wilderness preservationists and bird watchers generally support sound land, water, and wildlife conservation programs and practices and can be valuable allies. In reviewing our more effective affiliates, we inevitably find a close and harmonious relationship with their state conservation or game and fish departments. This does not mean that our citizen groups will blindly support all state programs. It means they will work closely with the agency administrators, supporting them when they are doing a good job and being critical when they are not. The important thing, we believe, is for the affiliate leadership to get together frequently with the agency administrators to discuss problems and resolve differences—and you I and E people can often serve as middlemen in getting your sportsmen and your administrators together. This procedure inevitably leads to better understanding. The end result usually is a professional, non-partisan administration of natural resources. It all boils down to the necessity of hanging together.

We live in a day and age of power organizations. Mergers are making industrial giants more gigantic. Labor unions are being unified and consolidated for the primary purpose of wielding more power and influence. There are so many lobbyists in Washington that they must register and wear name tags to prevent lobbying one another! The situation at the state level is probably similar in nature, but on a slightly smaller scale. The power plays from all highly organized groups make it extremely difficult for the cry of the conservationists to be heard above the din of special interest caterwauling. It is, therefore, imperative that all who are interested in conserving our resources be well organized, and you conservation information specialists are in a perfect position to promote this kind of citizen action.

The National Wildlife Federation's conservation education pamphlets are a source of many helpful ideas and suggestions for groups wishing to advance conservation knowledge and practices. Single copies are free to individuals on request, and I have a few copies here for you to take home with you if you like.

In conclusion, I would like to mention the fact that the National Wildlife Federation is now accepting individual associate memberships. One of the benefits of membership is our new, high-quality outdoorsman's magazine, National Wildlife. Brochures describing this membership opportunity are on the exhibit table here, and you would certainly be welcomed as members. The Federation, incidentally, is deeply appreciative of your cooperation in publicizing our new magazine through your state information media, and stands ready to return the favor should there be anything we can do for you in Washington.

Thank you very much.

BETTER I. AND E. COORDINATION BETWEEN THE BUREAU OF SPORT FISHERIES AND WILDLIFE AND STATE DEPARTMENTS

By WALTER A. GRESH Regional Director Bureau of Sport Fisheries and Wildlife Atlanta, Georgia

Why are we able to meet here today and say that the No. 1 problem facing hunting and fishing as a means of recreation, conservation of our natural resources, and even the future of this Nation is the lack of public awareness of the problem? How can our public be unaware in this age of mass media for communications—in a country with the most extensive educational system in the world? There are several reasons.

Perhaps our first reason is a lack of a unified goal in conservation—yet if our problem is lack of public awareness, it should be pretty obvious that *our* goal—the goal of the I & E people—should be an informed public—a public which is aware of the problems and the efforts of our fish and wildlife scientists to solve them, a public willing to support a program based on the knowledge and experience of these scientists.