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Edited by the
FACULTY OF POLITICAL SCIENCE
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NUMBER 411

GOVERNMENTAL PROBLEMS IN WILD LIFE
CONSERVATION

BY
ROBERT H. CONNERY

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GOVERNMENTAL PROBLEMS IN WILD LIFE CONSERVATION

BY

ROBERT H. CONNERY, PH.D.

*Instructor, Department of Government
Columbia University*



NEW YORK
COLUMBIA UNIVERSITY PRESS

LONDON: P. S. KING & SON, LTD.

1935

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PREFACE

I HAVE been keenly conscious while preparing this volume that only a lifetime of experience in conservation work would give one an entirely satisfactory background with which to solve some of the questions that have been raised. This book is consequently little more than an introduction to the numerous problems that are faced by government agencies in the field of wild-life conservation. I can only hope that it may be of some value to administrators and others who are interested in the preservation of the nation's wild life resources.

I should like to express my appreciation for the encouragement, aid and advice that had been given me in the preparation of this study by a host of persons both inside and outside of the government service. I am especially indebted to Professor Arthur Macmahon of Columbia University, who has unhesitatingly given of his time and effort during the past three years, for innumerable corrections in organization and interpretation.

Professors Luther Gulick, Schuyler Wallace, Philip Jessup, Joseph Chamberlain, Howard Lee McBain, and Arthur Burns, all of Columbia, have read the manuscript and offered invaluable suggestions. Professors Oliver Field of the University of Minnesota, Markley Frankham of the Brooklyn Law School, Patterson French of Union College, and Judge Irvine Lenroot of the United States Court of Customs Appeals, have also read portions of the manuscript and made helpful comments.

Dr. Fred Powell of the Brookings staff has from time to time made invaluable suggestions both as to the method of approach and technique of procedure. I owe him a debt which no mere line in the preface can repay. To Dr. Leverett Lyon, who in his official capacity as Director of Fellows at the Institution, made it possible for me to obtain access to important materials in Washington, and to other members of the staff, I am under similarly deep obligation.

Much of the material found in the first chapter was gathered during the summer of 1934 as a result of a study made while serving as Associate Consultant for the National Resources Board, under the direction of Mr. Charles Eliot, 2nd, the executive secretary.

I should also like to express my appreciation for the assistance of my colleagues, Mr. Charles Trinkaus and Mr. William Shaughnessy, in reading proof.

Limitations of space make it impossible to express my appreciation individually to the men and officers of the United States Biological Survey, Bureau of Fisheries, Forest Service, Bureau of Indian Affairs, Bureau of Reclamation, and the Minnesota Game and Fish Department for their generous co-operation; I take this opportunity therefore to do so collectively.

R. H. C.

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CHAPTER I

INTRODUCTION

OUR greatness as a nation and our well-being as individuals are due in large measure to the natural resources of this country. Timber from the forests, iron and coal and oil from the earth's deposits have gone to build and heat our homes and develop our industries; the wild life of the woods and marshes have helped to feed and clothe us, while the rich, fertile top soil, well watered by a thousand lakes and streams, have made America one of the great agricultural producing nations of the world.

In the period of exploration and settlement, man dealt hardly with the country's natural resources. Astounded at the seemingly inexhaustible bounties of nature, his one aim was exploitation in such a manner as to reap the largest possible rewards in the shortest possible time. Less than three centuries have passed since the march of settlement inward from the coast began, yet most of the forest covering of the country has been stripped away and wild life resources have been seriously and in some cases irreparably damaged.

Whether it was necessary in the period of settlement to stimulate initiative by placing relatively few limits upon the individual's use of the natural resources is an academic question. Conditions change and national policies must change to meet them. Today, the continuation of a policy of rugged individualism can only result in the harm of the many for the questionable benefit of the few.

We are particularly concerned in this study with the serious decline in the quantity of wild life. The natural growth of population, the building of good roads into regions hitherto inaccessible to the hunter and fisherman, the draining of breeding areas, the improved efficiency of guns and commercial fishing apparatus, the hesitancy of the states to shorten their open seasons and to reduce their bag limits have played havoc with the wild life resources of the nation. Even to the most casual observer it has been increasingly evident that there must be a new deal for the wild life of America if the nation is to save even a small part of this valuable natural resource.¹

What Wild Life Conservation Means: The term "conservation" taken alone has various meanings, depending upon the particular viewpoint of the person using it. Some use it in the limited sense of protection against injury or loss and thus, in speaking of wild life conservation, mean preventing the destruction of the existing supply of wild life. To others conservation has a positive as well as a negative meaning. In their use of the term they imply increasing the present supply of wild life as well as preventing further destruction, for they assume that the nation will benefit by an increase.

Still others, questioning the accuracy of such a general assumption, would attempt to measure the value of wild life in relation to the human activities with which it conflicts, before replenishing present stocks. For instance, in the case of fur-bearing animals, they would weigh the value of the pelt as compared with the damage the animal does to the lumbering and farming interests.

¹ See *Hearings on the Protection of Migratory Waterfowl*, Senate Committee on Conservation of Wild Life Resources (1932); Van Hise and Havemeyer, *Conservation of Our Natural Resources* (New York, 1933), pp. 405-13; Hornaday, William, *Thirty Years War for Wild Life* (Stamford, 1931).

In this sense, conservation does not mean merely saving all species from destruction nor haphazard efforts to increase all the existing species but rather implies selection with the result that, in some instances, conservation may even mean destruction of certain predatory species of wild life whose appetites or habits make them too expensive in relation to their contribution to the social and economic needs of the nation. Thus conservation, in its broadest sense, means wise use.

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The writer subscribes to this latter interpretation although he recognizes that with the comparatively limited information available on wild life, the decision as to its relative value compared with various human undertakings is difficult to make. Under the circumstances he believes that all species of wild life should be protected from destruction and their quantity increased unless it can be clearly demonstrated that a particular species is destructive of property out of all proportion to its possible value to society. Within this limitation conservation as it will be used in the following study can be taken to mean protection and increase of existing wild life.

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Aims and Methods of Proposed Study: There is a vital need for stock-taking at the present day to determine what should be the future course of wild life control policies in the United States. We have already passed beyond the stage where conservation may be left to the conscience of the individual hunter or fisherman. Now the question is whether control over wild life should be a function of the state governments or of the federal government, or perhaps divided between them. If the latter alternative is chosen, then what should be the respective sphere of each government?

It is with the aim of considering such problems that the present study in governmental problems growing out of wild life conservation is undertaken. The questions raised are governmental problems and, as such, ripe for the consideration of students of government as well as for the professional biologist. From this point of view, the writer feels he needs offer no apologies for invading a field which at first glance appears to belong exclusively to the natural sciences.

Limitations of space makes it necessary to exercise a measure of choice in deciding which of many governmental problems to discuss. Four major ones were finally chosen as especially important, (1) federal state relations, (2) legal authority of the state, (3) administrative structure, and (4) law enforcement. To these four was added a fifth, the problem of the place of wild life in the future national economy, not because it was more closely related to the rest of the study than other problems which might have been chosen, but because it has attracted so much attention within the last few months as a part of the broader movement for land planning.

Through all of these questions, however, there runs a major line of consideration, forging as it does the link that binds together into a related whole what otherwise might seem a series of unconnected essays. This major problem is as follows: granted that in the future the government will control the taking of wild animals to an increasing degree, what are the most efficient methods for making its intervention effective within the limits of our constitutional system?

CHAPTER II

THE CHANGING PLACE OF WILD LIFE IN THE NATIONAL ECONOMY

WILD LIFE has occupied a relatively unimportant place in the national economy of the past. Since the settlement of America began over three centuries ago, the trend of our national economic policy has always been towards bringing more and more land under cultivation. Rarely has the question been raised as to the value of land when used for wild life purposes compared with its value when used for agriculture. Little attempt was ever made to measure the social and economic needs of the nation.¹ It was just assumed that agricultural acreage should be increased and upon that assumption the government did everything in its power to open up new areas to agricultural use without giving much attention to whether there was need for such increased acreage.

Now we are witnessing a reversal in national policies. The present administration in Washington is committed to a program which it calls "land planning."² In this chapter we will attempt to determine what land planning means; what brought about this change in national policies; and what effect it will have upon the place of wild life in the future national economy.

¹ See *Report of the National Planning Board*, Govt. Print. Office, December, 1934; also Beard, Charles, *The Open Door at Home* (New York, 1935).

² Wallace, Henry A., Secy. of Agriculture, "AAA Program", *New York Times*, August 19, 1934, VIII, 1: 1; *ibid.*, "America Must Choose", February 9, 1934, 1: 2; Tugwell, Rexford, Under-Secy. of Agriculture, "Land Planning", *Today*, January 20, 1934, p. 6.

What Land Planning Means: The term "planning" taken alone means all things to all men. To one it means planning his household needs, to another his business affairs, to a third his vacation. But when applied to land, planning means the adoption of policies which will so order the future use of the land that its natural resources will be conserved and what it produces balances with consumption in terms of national and world economy. Two concepts, therefore, are involved in land planning: one, the use of the land so as to get the most out of it considering its physical features and its relation to other land areas and, second, the use of the land in such a way that its products will answer the various needs of the nation. In other words, land planning means administration of the natural resources of the nation to meet its social and economic needs.

Unbalanced Production Showed the Need of Land Planning: It was the latter of these two concepts; i. e., balancing production to meet the economic needs of the nation that attracted attention to the need of land planning. The conservation groups for many years had been striving to arouse public opinion to the necessity of taking steps to conserve the nation's natural resources with only moderate success. Now their program was taken over as part of a larger land plan.

The depression which had affected some phases of agriculture ever since the War spread over industry as well in the years 1929-32. In part, it was attributed to the production of more agricultural products than could be sold at a price sufficiently high to pay the farmer a fair return on the capital and labor invested in them. As a result, farm income went down, and with it the purchasing power of the farmer for industrial products. At least, this was an ex-

planation for the depression advanced by administration leaders.³

The Cause of Unbalanced Production: The explanation of the cause of this maladjustment between supply and demand seems to lie in the fact that agricultural production was greatly stimulated in the period just preceding and during the World War by an unusual demand. During all that period from 1900 to the close of the War the fear was widely expressed that the population was outrunning the food supply.⁴

From the Civil War onward the breaking plow of the new settler had been turning thousands of acres of prairie land in Minnesota, the Dakotas, Nebraska, and the Pacific Northwest into fertile farms, but during that same period population was increasing by leaps and bounds. By 1900 most of the available agricultural land had been settled but still the immigrants came by the hundreds of thousands and still population grew.

It is not to be wondered at that thinking men began to fear that if population continued to grow at its then rate of increase, it would soon outdistance food supply. Consequently, to prevent this situation coming about, agricultural production, they thought, must be stepped up. This theory gave rise to the reclamation movement in the Far West at the expense of the federal government, to the undertaking of large-scale drainage operations by the states, to the reorganization of the agricultural extension and county-agent services, and to the establishment in many states of secondary schools of agriculture.

³ Tugwell, Rexford, "Land Planning," *Today*, Jan. 20, 1934, p. 6; see also Ezekiel and Bean, *Economic Bases for the A.A.A.*, Dept. of Agriculture pamphlet, Dec. 1933.

⁴ Hill, James J., *Highways of Progress* (New York, 1910) is an example of the expression of that belief.

As a result of this drive much new land was opened to agricultural use which today will not produce a fair return to the farmer for the capital and labor he has expended on it. In addition to increasing the acreage under cultivation, this movement has, through the research work of federal and state agencies, increased the yield per acre for agricultural crops. The net result was to greatly stimulate production.

Effect of Agricultural Research on Production: Not only has the acreage under cultivation increased but the yield per acre has also increased, in large measure due to the research of the United States Department of Agriculture and of various state agencies. Since 1880, for example, there has been an increase in the average production per acre of 4.3 bushels of corn, 2 bushels of wheat, 3.9 bushels of oats, and about 30 bushels of potatoes.⁵ The greater part of this increase has taken place since 1900.

The increased yield is partly due to reduction of the damage caused by plants and animal pests. Great strides forward in the control of such pests have been made in the last twenty years,⁶ and it can be expected that the future will bring increased control of pests with a further increase in the yield.

Not only has there been increased yield per acre, but extensive research in animal husbandry has also resulted in a more efficient use of the grain and hay crops when fed to animals. For example, there were only 4 per cent more dairy cows in 1922-26 than in 1917-21 but probably 20 per cent more milk was produced. In other words, with the

⁵ Wietz, B. O., *The Trend Toward More Efficient Use of Land*, Bulletin No. 1458, Department of Agriculture. American farms are still less productive per acre than European ones.

⁶ Cates, H. R., "The Weed Problem," *Yearbook of the Department of Agriculture* (1917), pp. 205-10.

same number of acres devoted to raising feed for dairy cattle, the production in the form of dairy products was nearly 15 per cent greater.⁷

Advances in mechanization have led to the withdrawal of some 27,000,000 acres which formerly were needed to produce the feed for approximately 9,000,000 horses and mules which since 1921 have been replaced by machinery. These acres in most part have been planted to products fit for human consumption and thus have contributed their share towards upsetting the balance between supply and demand.⁸

Demand for American Agricultural Products Decreased: Now turning to the demand side of the balance, consider for a moment what had been happening there. The nation witnessed a tremendous growth in population up to 1914, a growth caused partly by a high birth rate and partly by large immigration from Europe.

With the opening of the Great War in Europe, immigration slowed down and finally almost stopped altogether. In the years that followed the War when it would normally have recommenced, various statutes were passed by Congress restricting the number of immigrants allowed to enter the country each year. During the same period, that is, from 1914 onwards the birth rate at home was lower than in the period that preceded the War. If these trends in population continue, it is expected that by 1950 the American population will have become practically stationary.⁹

⁷ Nourse, E. G., "The Outlook for Agriculture," *Journal of Farm Economics*, January 1927.

⁸ Hyde, Arthur, Secretary of Agriculture, "Developing a National Policy," *Proceedings of the National Conference on Land Utilization*, November 1931, p. 31.

⁹ Olsen, Nils, Chief, Bureau of Agricultural Economics, "The Agricultural Outlook," *Proceedings of the National Conference on Land Utilization*, November 1931, p. 5. See also Dublin, Louis, *Population Problems, passim* (New York, 1926).

In addition there have been significant changes in the diet of the American people during the last three decades. People whose diet contains as large a proportion of animal food as ours did before 1900 must have a larger land area for their support than people who prefer a vegetable diet. Since 70 per cent of our crops not including pasturage is fed to animals and only 30 per cent to humans directly, a change from meats to fruits, vegetables, and cereal foods such as has taken place means that less acreage is required to meet home demands. Besides, as the tastes of the average American have shifted to some extent from staple cereals and meats grown on American farms to sugar, tropical fruits, and oils, so to a like degree his demands have shifted from the products of American farms to those of tropical lands.¹⁰

Effect of the Loss of Foreign Markets on Demand: Tendencies in the foreign agricultural markets of the United States have been no less significant. The rising tide of nationalism, the desire for self-sufficiency and the clamor of agrarian groups have led to the erection of tariff barriers, the quota system and to exchange restrictions in Europe. It has been estimated that the products of fully forty million acres were formerly sold in foreign markets now closed to us.¹¹

In addition the purchasing power of our foreign buyers has been seriously impaired by the disruption of industry resulting from the World War and more recently from the world-wide depression. The recovery of foreign markets for our agricultural products is a prospect of the distant future if indeed America will ever recover them completely.

¹⁰ Baker, O. E., "Population, Food Supply and American Agriculture," *Annals of the American Academy*, March 1929, vol. 142, pp. 119-33.

¹¹ Tugwell, Rexford, Under-Secy. of Agriculture, *New York Times*, January 14, 1934, 8: 1.

Thus, on one side of the equation we have had the drive for a larger food supply continued from the pre-war period into the post-war period, a drive the full force of which was just beginning to be felt from 1920 onwards, while on the other side of the equation we have a change in population growth which in the post-war period has developed into a definite trend towards a stationary population. With the loss of foreign markets the ratio between food supply and demand at home was bound to get out of balance, while the industrial depression aggravated the situation by lessening the purchasing power of the urban workers.¹²

As for probable agricultural land needs of the future, it is likely that population, until it becomes stationary, will need a slight annual increase in land under cultivation. On the other hand, the increase in efficiency of production is expected to continue. Therefore, the amount of acreage needed will expand very slowly, if at all, in the next few decades.¹³

Attempts to Restore a Balance: The only solution of the agricultural depression, as the Administration sees it, is to balance production with demand. Some attempt has been made to stimulate demand by bringing about an increase in wages of the urban workers and by negotiating reciprocity treaties with foreign nations. The chief reliance of the Administration's leaders, however, has been placed upon reducing supply, temporarily, by means of a crop-reduction program as provided for by the Agricultural Adjustment Act,¹⁴ and permanently by a shift in land use.

This permanent program will result in the complete withdrawal of between fifty and one hundred million acres of

¹² Ostrolenk, Bernhard, *Annals of the American Academy*, vol. 148, p. 207.

¹³ Baker, O. E., *What About the Year 2000?* (1929), pp. 24-26.

¹⁴ *Statutes of the United States, Session Laws, 73rd Congress. 1st Sess., Chap. 25.*

land from agricultural use. It is planned to devote most of this area to forestry, not only because the agricultural situation is such that the acreage under cultivation must be reduced but because forestry as a part of an integrated national resources conservation program is important in itself.

Broad Forestry Program Planned: Forests, properly located, have many other values besides being a source of timber supply. The evident trend toward shorter working hours among all classes of the population points to the need of giving more attention to recreation. Forest areas in some measure can be made to supply that need.¹⁵

Nor can the possibilities of forests as a means of preventing floods and destructive soil erosion be overlooked. A survey recently undertaken at the request of the President showed that large areas in certain sections of the country have been adversely affected by the destruction of the forest covering as a result of the floods which followed such destruction.¹⁶ In part this situation may be remedied by a reforestation of upland areas especially those located near the headwaters of important streams. Thus from the social point of view there seem to be strong arguments in favor of reforestation.

Every effort should be made, of course, to obtain as large an economic return from these forest areas as possible. Fur animals, under proper management, can be made an important supplementary source of revenue.¹⁷ The eco-

¹⁵ *Report of Land Planning Committee*, National Resources Board, January, 1935, Govt. Print. Office.

¹⁶ *Report of the President's Waterflow Committee*, September 1934; Govt. Print. Office.

¹⁷ Ashbrook, Frank, Chief, Division of Fur Resources, U. S. Biological Survey, special memorandum to Special Committee on Conservation Wild Life Resources, U. S. House of Representatives, July 6, 1934. See also, Leopold, Aldo, "Conservation Economics," *Journal of Forestry*, May 1934.

conomic possibilities of other forms of wild life remain to be explored in detail, yet sufficient is known to conclude that some income can be derived from them. One might suggest in passing a revenue could be derived from a small fee charged for the privilege of hunting or fishing on forest areas owned by the government.

Effect of Program upon Place of Wild Life in National Economy: The land-planning program of the Administration cannot but have a stimulating effect upon wild life conservation in America. There is every indication that wild life needs are being carefully considered and will be made part of the final program.¹⁸ At least a greater quantity of wild animals will be produced although whether a larger number remain after the hunting and fishing season will depend on the care with which game laws, especially those fixing bag limits, are drawn. Dependent, therefore, upon the game codes, the opportunity is at hand for greatly increasing the supply of wild life in the country. In any case wild life seems destined to occupy a more important place in the national economy.

Viewed from the standpoint of providing recreation, land planning comes as a godsend to the sportsman. In recent years there has been a tendency, perhaps more emphatic in connection with game, but also readily noticeable as regards fish, towards the exclusion of the public from the more desirable wild life areas. Private ownership of land now frequently yields to a favored few the privileges of hunting and fishing which the country has been accustomed to view as a public right.

¹⁸ See *Report of Land Planning Committee, op. cit.*, note also allotment of twenty-five million dollars by PWA for purchase of sub-marginal agricultural land to be used for wild life purposes, *New York Times*, January 14, 1934, 1:2.

Land owners under trespassing laws may in most states prohibit access to their property for hunting, while exclusive clubs have leased many desirable stretches of water. Thus the casual hunter or fisherman of limited financial resources has been forced to travel further and further afield for his sport and recreation. That this condition has become menacing in some of the more thickly populated sections, is indicated by the action of the state of Connecticut in leasing private streams for public fishing purposes. It can be safely assumed that this trend towards decreasing the amount of land open to the public for sport will be reversed under the new land-planning program, thus remedying a situation that threatens to become serious.¹⁹

Difficulties Inherent in Land Planning: Although the writer is in general accord with the theory of land planning, he recognizes the existence of certain difficulties inherent in the program. A frank discussion of these difficulties is perhaps the best method of proceeding to their solution.

Assuming that agricultural production is to be balanced with demand, how is "demand" to be determined? Does it mean the actual quantity of agricultural products the people in the United States can consume, or does it mean the quantity the nation is economically able to buy? The reduction of crops while many people are in want is a policy that makes one pause and question. The agricultural leaders apparently, taking a pragmatic view, interpret "demand" merely upon the basis of the probable quantity that will sell at a price sufficiently high to pay the cost of production plus a reasonable profit for the farmer. Whether this is a satisfactory answer remains to be seen.

¹⁹ See memorandum prepared by U. S. Bureau of Fisheries for U. S. Forest Service on *Fishery Management in Forest Waters of the United States*, dated November 28, 1932.

The Administration, as part of its land-planning program, proposes to withdraw land from agricultural use, but what is it going to do with the individuals living on the land? Either they must be absorbed in the urban population or they must be allowed to open up new agricultural land which, of course, would defeat the program. No plan of land use can be sound until it meets and solves this problem.

The third difficulty to be faced is the lack of scientific data available for land planning. A great deal of scientific information, both economic, social, and political is necessary to determine the needs of the nation and the best use of the country's physical resources.

The three scientific dimensions of the land problem—physical, economic, and political—have all been explored in greater or less measure; yet even today some of its outlines are known only imperfectly. The western movement in America early gave rise to scientific inquiries into the characteristics of the land. The exploring expeditions, such as those of Lewis and Clark and of Pike, were scientific as well as political or military missions. To this day many of their shrewd observations are as sound as when originally made.

By the middle of the nineteenth century the federal government was engaged in elaborate inquiries into our western resources. The most ambitious of these projects were the Pacific Railroad Survey, a far-flung reconnaissance of the western half of the country. After the Civil War four survey organizations were established under King, Hayden, Wheeler, and Powell to carry on the work in the West, and in 1879 they were succeeded by the United States Geological Survey. In it and in the earlier organizations were developed the American beginnings of scientific geology, geography, forestry, biology, cartography, and other branches of learning. The necessity of knowing our western lands was the principal stimulus to this growth of scientific knowledge in the past century.

The generation of pioneer investigators was succeeded by more and more specialized workers. In the course of time bureaus were set up in the federal government, each charged with the duty of gathering scientific data in some special field of activity. Their work has by no means been completed at the present day although a vast amount of scientific information is available.

It is most probable that our knowledge is less complete regarding wild life than it is regarding any other single physical factor. The Biological Survey, it is true, has a great deal of information in its files dealing with wild life but little of it is so organized as to be of value to the land planner.

What are the approximate quantities of the various species of wild life in America? No one knows, nor has any accurate technique been developed for answering this baffling question. A few years ago the Biological Survey undertook the so-called "duck census" by requesting volunteer observers scattered throughout the country to make reports upon the number and species of ducks observed. The results of that census were of very doubtful accuracy chiefly because few observers were found really capable of estimating the number and species of ducks seen flying overhead. Some different technique must be developed if real results are to be obtained.

Food habits of wild animals are still incompletely known for all species, and for that matter for the same species in different parts of the country, although a division of the Survey has been at work on that phase of the subject for a number of years. Ecological research still offers vast opportunities to the wild-life scientist.

In every field of scientific knowledge regarding the physical nature of the land itself, the data available are inadequate. Limitations of space do not permit a consideration of the

human aspects of the problem, the quantity and scope of the data available on population movements, or the purely economic phases of land planning. Let it suffice to say that human knowledge is far from complete in any of these fields.

The federal bureaus are not themselves altogether to blame for this situation. Limitations imposed by the statutes and by lack of funds have many times hampered their work and prevented them from gathering the information which they should have. The point remains, however, that only twenty-six percent of the area of the United States has been adequately mapped,²⁰ less than half of it surveyed to determine the quality of its soil, while there are great gaps in the field of knowledge regarding vegetation, climate, and wild life. This factor must be taken into consideration in planning the use of the nation's resources.

Land Planning Within Constitutional Limits: Once a national land plan has been drafted, the next problem is to apply the plan and bring the actual use of the land into conformity with it. Land still owned by the government offers a fairly easy problem. Those areas in the public domain of the federal government which can be efficiently administered by existing federal agencies such as the Forest Service, the National Park Service, or the Biological Survey, can be withdrawn from settlement by act of Congress

²⁰ Estimate by chief of the Topographic Branch, U. S. Geological Survey. For more detailed discussion of the scientific aspects of the problem, see *Federal Land Planning Agencies*, Bulletin 2A, National Resources Board (1934) prepared by the writer; also *Preliminary Report on Land Resources in Relation to Public Policy*, Science Advisory Board (1934); *ibid.*, *New York Times*, December 15, 1934; Bowie, William, "Surveying and Mapping in the United States," *The Military Engineer*, September 1933, p. 386; *A National Plan for American Forestry* (Copeland Report) prepared by U. S. Forest Service, 73rd Congress, 1st Sess., Senate Doc. 12 (1933).

or by executive order of the President.²¹ The administration of grazing areas has been provided for by the Taylor Act.²² Certain scattered areas located near existing state reservations might be turned over to the states by gift or sale. But some new method must be provided for the administration of remaining public domain, most of which is desert country of a type which is not administered by any existing federal agency.

The problem of bringing privately owned lands into conformity with a national land plan is a more difficult one. Three methods of control have been used in different parts of the country with a considerable measure of success. The Wisconsin state legislature in 1932 passed a law authorizing county boards to zone their respective counties as forest, recreational, and unrestricted areas, according to type of land and accessibility to existing roads and schools.²³

If a county has been so zoned further settlement for year around agricultural use will not be permitted in any except unrestricted areas. This rural zoning is comparable to urban zoning which, as a method of regulation, is constitutional under the police power of the state. Zoning as a control measure for national land planning assumes, of course, cooperation by the states, for it involves a power of the state, not of the federal government.

Tax abatements offers the second method of control. It is entirely possible to work out a system of taxation whereby an individual will receive rebates provided he puts his land into forestry or maintains cover helpful to wild life. It seems clear that the nation is committed in the future to the policy of repairing at public expense in so far as it is possible the damage done to natural resources. In other words, the nation will have to foot the bill in case the individual

²¹ On power of Congress and President over public domain, note p. 45.

²² 48 Stat. L. 1274.

²³ *Wisconsin Statutes*, section 59.97 (1932).

misuses the portion of the natural resources committed to his care. If he cuts away the timber on his land or allows his cattle and sheep to over-graze a certain area and serious erosion occurs, national wealth is wasted and ultimately the nation pays the bill. If an individual destroys cover useful to wild life in a feeding area, the nation as a whole has lost something of value and ultimately must repair the damage done. Repair, however, is a negative policy. Prevention is cheaper and more efficient. Instead of spending money to replace cover on wild-life feeding grounds, rather pay the individual to maintain the cover in the first place. That payment can well take the form of a tax abatement.

The third method is outright purchase. Under eminent domain proceedings the national and state governments are endowed with the authority to take private property for a public purpose upon payment of just compensation. This is a method that should be used with caution, for eminent domain proceedings imply sale against the will of the owner and many times cause ill feeling. In addition, eminent domain involving as it does court action, increases the cost of the purchase. Therefore, whenever it is possible to acquire sufficient quantities of suitable land through voluntary purchase to meet the needs of the government it should be done.

The size of existing federal or state reservations may be increased or new ones created by purchasing additional areas, but the acquisition of scattered holdings not contiguous to existing reservations promptly raises the question of how the land is to be administered. For this reason the government should make no attempt to acquire all areas that are submarginal for agricultural use but only those which it has the facilities to administer for other purposes.

These three methods: zoning, tax abatement, and purchase are the means by which a national land plan can be put into effect. The first appeals to the local community

because zoning prevents scattered settlement with its high education and road building expenses. Reduced public expenditures means, of course, reduced taxation and therefore is popular with the taxpayers. It is more difficult to win public support for a reform of the tax system so as to induce wise land use but nevertheless worth trying.

Outright purchase remains chiefly the field of the federal government because that agency at the present time is the only one with sufficient funds to finance a widespread purchase plan and also because the federal government's efforts towards bringing about better land use must be limited almost entirely to this method.

Conclusion: Wild life is offered the best chance for increase at the present time that it has had in many a year. The men engaged in drafting the present land plan are fully awake to its needs and sympathetic to the idea of expanding the breeding areas. Reduction of crop areas to balance production means a shift from agricultural to recreational and timber uses. Wild life will undoubtedly be made an important secondary use in these areas throughout the country.²⁴ While it is true that due to lack of proper scientific data the program is faced with certain difficulties, notable among which is the determination of the quantity of land to be taken from agricultural use, the specific areas, and the specific uses to which it may be put, nevertheless, it can not but result in giving wild life a much more important place in the national economy than it has previously occupied.

Whatever steps are taken to aid wild life conservation, however, must be made to fit into the constitutional pattern of our government system. Therefore, in the next chapters the sphere of the national government and of the states will be outlined and the work of each within their respective spheres described.

²⁴ See *Report of the Land Planning Committee*, National Resources Board, December 1934, Govt. Print. Office.

CHAPTER III

THE SPHERE OF THE FEDERAL GOVERNMENT IN WILD LIFE CONSERVATION

DURING the last half-century there has been a rapid increase in the conservation activities of all governmental agencies, which can be traced to two factors: first, the awakening realization of the value of wild life to the nation and, second, the knowledge that uncontrolled exploitation is rapidly depleting the existing supplies. The old theory of inexhaustibility dies hard, but the total disappearance of some species of wild life formerly plentiful and the noticeable absence of game animals in particular areas has given it a final blow.¹

The Essentials of Our Federal System: This growth in conservation activities took place under our federal system of government, the essential principle of which is a division of power between the national government and the local units of government by means of a written constitution unchangeable by the ordinary process of legislation. The national government and the states are each supreme within the sphere marked out for them by the Constitution.

¹ The wild pigeon is an excellent example of the total disappearance of a species. Enormous flock of wild pigeons formerly darkened the skies in the states of the Upper Mississippi Valley, New York, and southern New England. The last great meeting in New York occurred in 1868, the last large roosting in 1875, and the last great nesting in Michigan, probably the last anywhere on the continent, in 1878. No attempt was made to protect these birds—indeed, there was little realization that they needed protection until they had virtually disappeared. Palmer, T. S., *Chronology and Index of American Game Protection*, Bulletin 41, Biological Survey, 1912.

The central government established by means of the United States Constitution was given certain powers essential to national development, such, for example, as control of foreign and interstate commerce, foreign affairs, the coining of money, and, in order to obtain the wherewithal to carry out these powers, the right to levy taxes within certain broad limits. The local units, the states, upon their part were forbidden by the constitution to invade these fields but were guaranteed possession of all remaining powers not delegated to the national government. This in broad outline is the basis of our constitutional system.

The Delegated Powers of the National Government: Those powers given to the national government are sometimes spoken of as the *delegated* or *enumerated powers*. Nowhere among the enumerated powers is found the power to make laws for the conservation of wild life as such. The President, however, is expressly given authority to make treaties "by and with the advice and consent of the Senate,"² and Congress the power to "regulate commerce with foreign nations, among the several states, and with Indian tribes,"³ "to make all needful rules and regulations respecting the territory or other property belonging to the United States,"⁴ and "to lay and collect taxes . . . to pay the debts and provide . . . for the general welfare of the United States."⁵

The Broad Construction of the Constitution: With the economic and social development of the nation and the rapid settlement of the greater part of the continent, wild life began

² *United States Constitution*, art. ii, sec. 2.

³ *Ibid.*, art. i, sec. 8.

⁴ *Ibid.*, art. i, sec. 8; for the District of Columbia, art. i, sec. 8 but clause 17.

⁵ *Ibid.*, art. i, sec. 8.

to decrease in quantity. No longer was it possible to take one's gun of an evening, step out into one's own backyard, and return shortly with a haunch of venison for the next morning's breakfast. The modern shotgun replaced the flintlock, the steamboat the sailing vessel, the automobile the stagecoach, paved highways the blazed trail, and each of these changes meant that wild life, whether on sea or land, decreased in numbers the more rapidly. The need for conservation became increasingly evident, and yet adequate conservation measures depended upon action by the national government in many instances.

In the field of conservation as in most other fields of activity, the difficulty has been met not by formal amendment of the national constitution but through a practice of broad interpretation at the hands of the courts. Under the leadership of John Marshall, powers expressly granted the national government were interpreted by the Supreme Court in such a way as to give them flexibility and, within limits, an adaptability to the changing needs of the developing nation.⁶

As a result the principle was definitely established that the national government had any power which might be reasonably implied from those expressly delegated to it by the constitution and which was not expressly prohibited. One might say then that the national government is limited to powers granted it by the constitution, but these powers are to be broadly interpreted as befits powers granted to a government.

Every power exercised by the national government in the field of conservation, therefore, must be traced back to some authority expressly delegated to it by the constitution or which may be reasonably implied from such expressed

⁶ See *McCullough v. Maryland*, 4 Wheaton 473, 481 (1819), and *Gibbons v. Ogden*, 9 Wheaton 187, 189 (1824).

power. It has already been pointed out that the expressed powers under which the national government carries on conservation activities are four: the power to (1) make treaties; (2) regulate interstate and foreign commerce; (3) administer the territory and other property of the United States, and (4) raise money by taxation which is to be spent for the general welfare. But one might well ask specifically: what does the national government do with regard to wild life conservation under each of these powers?

Conservation Activities of the National Government under Treaty-Making Power: The conservation of animals *ferae naturae* on the high seas, depending as it does upon cooperation between nations through international agreements, is clearly outside the power of the state governments.

The national government, however, under the treaty-making clause of the constitution can by means of unilateral and multilateral agreements with the governments of other nations take steps to prevent needless destruction of wild life on the high seas.

Such action has been taken to protect the fur seal fisheries on the Pacific Northwest and Alaskan coasts; the North Atlantic fisheries, and the Northern Pacific halibut fisheries.⁷ The United States also entered into a treaty with

⁷ Fur seals see *North Pacific Sealing Convention*, Senate Doc. 75, 62nd Cong. 1st Sess., for history of movement leading to convention see Moore, John B., *Digest of International Law*, vol. i, p. 900; for history of North Atlantic fisheries dispute see Dunning, Wm., *The British Empire and the United States*, N. Y. (1914); Sabine, Lorenzo, *Report on the Principal Fisheries of the American Seas*, included as part of the annual report of the Secretary of the Treasury (1852), and Lansing, Robert, "North Atlantic Coast Fisheries Arbitration," *Journal of International Law*, vol. v, p. 1; for Northern Pacific Halibut fisheries negotiation see *Hearings on Northern Pacific Halibut Fishery*, Committee on Merchant Marine, Radio, and Fisheries, H. R. 8084, Feb. 8, 1932, p. 18, for the convention itself see *Treaty Series*, No. 701, Govt. Print., statute enforcing, 43 Stat. L. 649, as amended, 47 Stat. L. 142.

Mexico for the protection of fisheries off the California coast in 1926 but abrogated it a year later.⁸

In instances where the citizens of a number of nations are engaged in taking some species of wild life on the high seas, agreements between individual governments are not effective. A general all inclusive agreement must be arranged. An example of one treaty of that type is the Baleen Whale Convention drafted under the auspices of the League of Nations, regulating the taking of the baleen whale.⁹ It was ratified by some half-dozen other nations as well as the United States.

Protection of Migratory Birds under Treaty-Making Clause: The exercise of the treaty-making power of the national government was not questioned so long as it concerned the conservation of animals *ferae naturae* on the high seas. A new point was raised, however, by the attempted regulation of the killing of migratory birds, that is, the game and song birds that migrate seasonally between Canada and the United States, by the national government under the treaty clause. This type of regulation was distinguished from the previous ones by the fact that the animals *ferae naturae* to whom the earlier treaties referred had been beyond the boundaries of any state while here the migratory birds were found within the states which up until this time had looked upon them as entirely subject to state jurisdiction.

⁸ *Treaty Series*, No. 732.

⁹ On Baleen Whale Convention see article by Jessup, Philip C., "The International Protection of Whales," *Journal of International Law*, vol. 24, p. 751 (1930), American ratification July 7, 1932; for more general discussion of whaling see *Hearings on Conservation of Whales*, Senate Committee on the Conservation of Wild Life Resources, March 20, 1931, Hohman, Elmer, *The American Whaleman*, New York (1928) and Starbuck, Alexander, *History of the American Whaling Industry*, Waltham, Mass. (1878).

Thus, a conflict was inevitable between the authority of the national government to make treaties and the authority of the states arising from two sources, first, their well-recognized right of control because of ownership of animals *ferae naturae* found within their borders¹⁰ and, second, because of the tenth amendment to the constitution which reserved to the states all the powers not granted in the national government.

Congress had previously attempted to deal with the situation by means of an ordinary statute. In March 1913 it had passed the Weeks-McLean Migratory Bird Act¹¹ declaring migratory birds within "the custody and protection of the United States" and prohibiting their destruction contrary to regulations which the Department of Agriculture was authorized to establish. The Department proceeded to set up such regulations, and in attempting to enforce them found the constitutionality of the entire act brought into question.

Two state supreme courts, Maine and Kansas,¹² and two federal district courts¹³ during 1913-15 held the statute unconstitutional. An appeal from one of the federal decisions, the *Shawver Case*, was carried to the United States Supreme Court where it was twice argued. On the first argument before a bench of only six, there was evidently a division of opinion making a decision favorable to the act impossible, or else the case seemed sufficiently important to induce the court to order it re-argued before a full bench.

¹⁰ Cf. p. 54.

¹¹ 37 Stat. L. 847; in essential features same as the *Shiras bill* of 1904.

¹² *State v. Sawyer*, 113 Me. 458, 94 Atl. 886 (1915); *State v. McCullough*, 96 Kan. 786, 153 Pac. 557 (1915).

¹³ *United States v. Shawver*, 214 Fed. 154 (1914); *United States v. McCullough*, 221 Fed. 288 (1915).

After re-argument but before a decision had been given, the State Department¹⁴ in 1916 concluded a treaty with Canada protecting migratory birds. The government's appeal from the decision of the Arkansas District Court was dismissed on the motion of the Attorney General and thus the Supreme Court never decided the *Shauver case*.¹⁵

In July 1918 Congress pursuant to the treaty enacted the Migratory Bird Treaty Act¹⁶ and under it the Department of Agriculture has from time to time issued enforcing regulations. The constitutionality of the 1918 Act having been contested on its enforcement, five federal district courts, including that for the district of eastern Arkansas, which had held the 1913 Act unconstitutional, now uniformly held the 1918 Act constitutional.¹⁷ The *Missouri v. Holland* case was carried to the Supreme Court on appeal and there the Act of 1918 was held constitutional.¹⁸

Mr. Justice Holmes, who wrote the decision, gave a broad interpretation to the treaty-making power of the national government. He said that as the national government had

¹⁴ See Senator Root's resolution, 62nd Cong., 3rd Sess., S. Res. 428 and Senator McLean's resolution, 63rd Cong., 1st Sess., S. R. 25. Also draft of the proposed treaty by legal department of the American Game Protective Association in 1914-15. The story is current that this method of dealing with the problem was first suggested by a young solicitor in the State Department to a Justice of the Supreme Court who in turn discussed it with the President. This individual has since become an authority on International Law in one of the leading universities of the country.

¹⁵ See Professor Corwin's interesting article on this statute in 14 Mich. Law 613 (1916) in which he attempts to prove that migratory birds come under the commerce clause of the national constitution.

¹⁶ 40 Stat. L. 755.

¹⁷ *United States v. Thompson*, 258 Fed. 257 (1919); *United States v. Samples*, 258 Fed. 479 (1919); *United States v. Selkirk*, 258 Fed. 775 (1919); *United States v. Rockefeller*, 260 Fed. 346 (1919); *Missouri v. Holland*, 258 Fed. 479 (1919).

¹⁸ *Missouri v. Holland*, 252 U. S. 416 (1919).

definitely been delegated the power to make treaties by the constitution itself, it was not enough to urge the tenth amendment as a limitation upon it in this case. Nor was it a proper test to say that what Congress could not do by ordinary law, a treaty could not do because acts of Congress are the supreme law of the land only when made in pursuance of the constitution, while treaties are declared to be so when made under the authority of the United States. This treaty did not contravene any prohibitory clause of the constitution. It dealt with a subject recognized by international custom as a proper one for treaties. Therefore, it was valid and the law carrying it into effect was constitutional.

Turning to the argument that the state in its sovereign capacity owned animals *ferae naturae*. Justice Holmes said that although the state's title stood as against the right of an individual, it could not be said to prevent the national government from exercising its right to make treaties regulating the subject.¹⁹

Conservation of the Sponge Fisheries under the Commerce Clause: Congress to protect the sponge industry off the coast of Florida passed an act on June 20, 1906²⁰ prohibiting the taking, curing, landing, or sale of sponges under a certain size or during specified closed seasons. In violation of this act the vessel *Abby Dodge* gathered sponges and landed them at the port of Tarpon Springs, Florida, in Sep-

¹⁹ Held in *United States v. Lumpkin*, 276 Fed. 580 (1921), that the treaty plainly does not attempt to protect non-migratory birds, but the fact that there may be individual birds of the species that do not migrate does not affect the validity of the treaty nor act passed pursuant to it. Subsequent cases held that treaty was not retroactive and would not apply to birds killed before it went into effect. *United States v. Fur Store Co.*, 262 Fed. 836 (1920); and *United States v. Marks*, 4 Fed. (2nd) 420 (1925).

²⁰ 34 Stat. L. 313.

tember 1908. As a consequence the owner of the vessel was arrested and the vessel fined pursuant to the terms of the act.

The case was carried to the United States Supreme Court²¹ on appeal, the argument being advanced that the statute was unconstitutional because it dealt with a matter entirely within the authority of the states. Mr. Chief Justice White who wrote the opinion of the Court followed the precedent established in *The Lord Steamship Case*²² and ruled that although the *Abby Dodge* had merely sailed from an American port to gather sponges and had returned to the same port, she was engaged in foreign commerce within the meaning of the constitution provided she had gone beyond the territorial waters of the state of Florida. In exercise of its power to regulate foreign commerce, Congress, said the Court, long has had the power to forbid merchandise carried in such commerce from entering the United States.

In this particular case, however, the libel did not charge that the sponges had been taken outside the state waters, and thus an important element necessary to constitute a violation of the statute was absent. Under the circumstances, the decision of the District Court imposing the fine was reversed, but with directions to permit the government, if desired, to amend the libel and so present the case within the statutes as constructed.

In 1914 Congress passed an act superseding the statute of 1906 and although similar to it in general outlines definitely limited its operation to the Gulf of Mexico and the Straits of Florida outside of the state territorial waters.²³ This statute has been in effect ever since.

²¹ *The Abby Dodge*, 223 U. S. 166 (1912).

²² 102 U. S. 541 (1880).

²³ 38 Stat. L. 692. See also early acts of Congress under authority of commerce clause regulating the fur trade; 1 Stat. L. 137, 329, 469; 2 Stat. L. 39, 139, 173, 289; 3 Stat. L. 332, 682; 4 Stat. L. 35, 729; 5 Stat. L. 680. For further discussion of commerce clause see p. 64.

Wild Life Conservation in the Territories of the United States: The constitution gives Congress power "to dispose of and make all needful rules and regulations respecting the Territory and other property belonging to the United States."²⁴ The present territories of the United States are Alaska, Porto Rico, Hawaii, the Philippines, the District of Columbia, and certain insular possessions, notably the Canal Zone, the Virgin Islands, and Guam. All of these territories are located outside the boundaries and therefore the jurisdiction of any of the states.

Within these territories, Congress has entire dominion and sovereignty, national and local, and has full legislative power over all subjects upon which the legislature of a state might legislate.²⁵ Congress may transfer the power of legislation in respect to local affairs to a legislature elected by the citizens of a territory and in the case of the more important territories has done so.²⁶

Conservation of Wild Life in Alaska: Congress established an Alaskan Game Commission in 1925 composed of five members, four of whom were to be appointed by the Secretary of Agriculture and who must be residents of Alaska for five years preceding their appointment. The fifth, who acts as executive officer, is the principal representative of the Biological Survey resident in Alaska.²⁷ Salaries are limited to a per-diem for time spent at meetings.

The Commission has wide authority over the administration of the game laws in Alaska. The regulation regarding open and closed seasons and methods of taking of wild

²⁴ Article IV, section 3.

²⁵ See *Simms v. Simms*, 175 U. S. 168 (1899) and *United States v. McMillion*, 165 U. S. 510 (1897).

²⁶ *Binns v. United States*, 194 U. S. 486 (1903).

²⁷ 43 Stat. L. 740.

animals are prescribed by the Secretary of Agriculture acting upon recommendation of the Commission, within limits fixed by act of Congress. Thus, for instance, at no time can the Secretary allow female yearling or calf moose, doe yearling, or female mountain sheep to be taken.²⁸

Congress has also fixed the fees for game license. The money collected under such fees is divided between the Treasury of the United States and the school fund of the territory. The expenses of administering the game laws are charged against the United States Treasury and covered by the Agricultural Appropriation Act each year.²⁹

Congress has authorized the Secretary of Commerce to make similar regulations fixing the open and closed fishing season in various areas and making it unlawful to fish in those areas during the closed season.³⁰ The United States Bureau of Fisheries is charged with the administration of such regulations.³¹

The territorial legislature is empowered, however, to fix and collect fishing license fees³² although most of the fish-protection work is carried on by the Bureau of Fisheries under direct appropriation from the United States Treasury. The income from fishing licenses nets the territory over half a million dollars a year.³³

Conservation of Wild Life in Hawaii: A territorial government for Hawaii was established by act of Congress April 30, 1900³⁴ and its powers have been increased by

²⁸ 43 Stat. L. 743.

²⁹ 47 Stat. L. 1454 for fiscal year 1934.

³⁰ 43 Stat. L. 464.

³¹ For details, see Chapter VI.

³² 37 Stat. L. 512 as amended 43 Stat. L. 467.

³³ *Report of the Commissioner, Bureau of Fisheries* (1932), p. 521.

³⁴ 31 Stat. L. 144.

subsequent acts.³⁵ There is a governor and legislature consisting of two houses, the members of which are elected by the people.

The power of the legislature extends to all rightful subjects of legislation not inconsistent with the constitution of the United States. In the absence of federal laws to the contrary, the territorial legislature has complete control over wild life found on the islands. To date, Congress has only passed one act dealing with the subject that would so restrict the power of the legislature. On April 30, 1900 it provided that all fisheries in the sea waters of the territory not included in a fish pond should be free to all citizens of the United States, subject, however, to vested rights. The Attorney General of the territory was authorized to proceed by condemnation proceedings to acquire such vested rights so as to make them public fishing grounds.³⁶

Conservation of Wild Life in Porto Rico and the Philippine Islands: Both the territories of Porto Rico and the Philippine Islands have territorial governments composed of an executive appointed by the President of the United States with the consent of the Senate, and a territorial legislature elected by the people. Local legislative power consistent with the constitution and laws of the United States is vested in the legislature.³⁷ Although the powers of the legislature of Porto Rico and the Philippines are somewhat more restricted than that of Hawaii, yet the same general principle applies and in the absence of congressional act to the contrary the local legislature is vested with the control over wild life. In the case of neither Porto Rico nor the Philippines has Congress passed any laws relating to wild life.

³⁵ 31 Stat. L. 150; 36 Stat. L. 444; 42 Stat. L. 116; and 42 Stat. L. 223.

³⁶ 31 Stat. L. 160.

³⁷ For act defining power of legislature, see 39 Stat. L. 958 for Porto Rico and 39 Stat. L. 547 for the Philippines.

Conservation of Wild Life in the District of Columbia: For the greater part of its history the government of the District of Columbia has been that of an unorganized territory or dependency, but for a brief period, 1871-74, it was that of an organized territory. The power of Congress is essentially the same as regards the District of Columbia and territory acquired by treaty, but the source of this power is found in a separate section of the constitution. By clause 17 of section 8, Article I, Congress is given specific plenary authority "to exercise exclusive legislation in all cases whatsoever over such District . . . as may . . . become the seat of government."

Under this plenary power granted to it, Congress may set up such form of government for the District as it sees fit. It may establish a municipal government elected by popular vote, as was done from 1801 to 1871; it may create a territorial government, such as existed from 1871 to 1874; or it may place some local powers of government in a municipal corporation whose officers are appointed by the President and some of the powers in the hands of federal agencies as at present.³⁸

The municipal government is headed by three commissioners appointed by the President with the consent of the Senate,³⁹ whose powers are similar to those customarily exercised by the commissioners under the commission form of municipal government. Congress, however, retains the powers commonly held by the state legislature including the power to make laws regarding wild life.

On July 14, 1932 Congress passed an act⁴⁰ prohibiting the killing of wild animals in the District of Columbia. So

³⁸ For more detailed discussion of the government of the District, see Schmeckebier, Laurence, *The District of Columbia*, Institute for Government Research publication (1928).

³⁹ 20 Stat. L. 102.

⁴⁰ 47 Stat. L. 660 amending and amplifying 34 Stat. L. 808.

that at the present time the entire District is a wild bird and game refuge.

Conservation of Wild Life in the Insular Dependencies: The remaining territory of the United States outside of state boundaries comprising the Canal Zone, the Virgin Islands, Guam, and Samoa, might be compared to the British Crown Colonies. They are each ruled by a Governor appointed by the President with the consent of the Senate. There are no representative assemblies of a legislative nature although in the case of the Virgin Islands the Governor is aided by the advice of a colonial council.⁴¹

Congress has not legislated on the subject of wild life in these territories but the governors are authorized to make regulations that have the force of law upon local subjects which includes wild-life conservation.

Conservation of Wild Life on "other property of the United States": The authority of the United States over land owned by it but located within state boundaries is based likewise upon Article I, section 8 of the constitution which states: "The Congress shall have power to dispose of and to make all needful rules and regulations respecting the territory and other property belonging to the United States."

In this section the power to dispose of lands belonging to the United States is broadly conferred upon Congress and it is under the power thus granted that the homestead acts for the settlement of the public domain have been enacted. The full scope of this clause has never been definitely settled. It has been commonly held, however, that the national government may deal with public lands "precisely as an individual citizen may deal with his farming property. It may sell them or withhold them from sale. It may grant them

⁴¹ U. S. Code, Title 48, chaps. 6, 7, 9.

in aid of railways or other public enterprises. It may open them to preemption or homestead settlement. . . ." ⁴²

Whether the principle of state ownership of wild game extends to public lands of the United States depends upon the act admitting the state to the Union, which may except such lands from state sovereignty, as in the case of certain Indian reservations in Kansas.⁴³ In the absence of such exception the constitutional rule of state equality would apply and the state would have sovereignty over all lands within her boundaries.⁴⁴ The same situation arises when the state by act of its legislature expressly waives its sovereign rights and allows the national government complete jurisdiction over land purchased within its borders for reservation purposes.⁴⁵

Notwithstanding the principle that the state owns all wild game while it remains within her borders, Congress may withdraw public lands from sale ⁴⁶ and set them aside as national parks, forests, or bird reservations, closing them to all forms of hunting without consulting the state concerned. In addition, it has often authorized the President to do likewise by executive order.⁴⁷ Indeed, upon the grounds of long-continued custom, the courts have upheld the Presi-

⁴² *Camfield v. United States*, 167 U. S. 521 (1896); see also *Butte City Water Co. v. Baker*, 196 U. S. 126 (1904); and *Light v. United States*, 220 U. S. 523 (1911).

⁴³ Cited in *Ward v. Race Horse*, 163 U. S. 504 (1896) at p. 519. See also Montana Const. Ordinance No. 1, division 2d.

⁴⁴ *Ibid.*

⁴⁵ *United States Constitution*, art. i, sec. 8.

⁴⁶ *Ibid.*

⁴⁷ Act of Congress, June 8, 1906, authorizing the President to withdraw such lands from sale as found necessary to establish a monument reserve embracing the Grand Canyon of the Colorado held valid in *Cameron v. United States*, 252 U. S. 450 (1920).

dent's right to withdraw lands upon his own initiative and by his own authority.⁴⁸

On the other hand, the national government may destroy game during the season closed by state law if such game is found to be damaging property on public lands. The United States Supreme Court in *Hunt v. United States*⁴⁹ upheld the right of the Secretary of Agriculture to order the killing of a surplus of deer, which were seriously injuring the young trees in the Kaibab National Forest in Arizona, notwithstanding the state game law which provided for a closed season on deer. The Court based its decision solely on the grounds that the national government had the right to take such steps as necessary to protect its property, the only limitation being, in this case, that the carcasses of the deer taken out of the forest reservation must be plainly marked to show that they had been killed thereon.

But in the absence of congressional act or executive order setting aside an area of public land for some special purpose, state game laws apply unless such area was specifically excepted from all state jurisdiction in the act of admittance. Thus in the national forests which have not been closed to hunting by act of Congress or by executive order, state game seasons apply.

Conservation of Wild Life on Indian Reservations: The phrase of the commerce clause giving Congress power to regulate commerce with the Indian tribes sets Indian reservations in a class by themselves. Indians as persons are wards of the United States, whose actions to a varying degree are regulated by acts of Congress. Thus, the status of the individual as well as the status of the land must be considered in determining the extent of federal control.⁵⁰

⁴⁸ *United States v. Midwest Oil Co.*, 236 U. S. 459 (1914).

⁴⁹ 278 U. S. 96 (1928).

⁵⁰ *United States v. Kagama*, 118 U. S. 374 (1886).

By an act of June 2, 1924⁵¹ all Indians born within the territorial limits of the United States, not before granted citizenship, were declared to be citizens of the United States. The act did not, however, alter in any way the control of the Bureau of Indian Affairs over the tribal and individual property of the Indian; nor did it change the laws that apply to the person of the Indian. Thus, the unallotted Indian living on a reservation is still not subject to state laws, and is subject to those of the United States only for certain specified offenses.⁵²

State game laws extend to Indian reservations located in states where the United States at the time of the creating the state did not reserve to itself complete jurisdiction,⁵³ and neither Indian nor non-Indian may take game legally in violation of them. Indians, nevertheless, may violate state game laws while on the reservation with immunity because of their particular relation to the national government as its wards, which protects them from arrest by state officers. However, the moment game taken in violation of a state game law by an Indian passes to a non-Indian by gift or sale, it becomes liable to seizure by state officers.⁵⁴

A different situation arises when the reservation has been excepted from state sovereignty in the act admitting the state to the Union as in the instance of some of the states west of the Mississippi.⁵⁵ In such case the state game laws stop at the boundary of the reservation and apply neither to Indians nor non-Indians on the reservation.⁵⁶

⁵¹ 43 Stat. L. 253.

⁵² *State v. Big Sheep*, 75 Mont. 335, 243 Pac. 1067 (1926).

⁵³ Applies to states east of the Mississippi chiefly. See *State v. Campbell*, 53 Minn. 354, 55 N. W. 553 (1893).

⁵⁴ *Selkirk v. Stephens*, 72 Minn. 335, 75 N. W. 386 (1898).

⁵⁵ *Kansas Indians*, 5 Wall, 737 (1867); *Hollister v. United States*, 145 Fed. 773 (1906).

⁵⁶ *Langford v. Montheith*, 102 U. S. 145 (1880); *State v. Big Sheep*, 75 Mont. 335, 245 Pac. 1067 (1926).

The federal government, of course, may make game laws specifically for Indian reservations but has not done so to date. It is still an open question whether federal game laws and the Migratory Bird Treaty Act in particular apply to Indian reservations when they do not upon their face so state. It is held by the Solicitor of the Department of Agriculture, acting in behalf of the Biological Survey, that they do apply. A test case is at the present time being brought in the federal District Court for Oregon charging a violation of the Migratory Bird Treaty Act by an Indian on a reservation excepted from state jurisdiction.

Once an Indian leaves the reservation he becomes subject to the ordinary laws of the state just as any other person⁵⁷ even though his absence from the reservation be only temporary. Should he hunt or fish while off the reservation he may be punished with the same penalties as a white man. The reason for this inconsistency is found in long-continued custom most probably arising from the need of the early settlers for protection.⁵⁸

Federal Conservation Activities under the General Welfare Clause: Under article I, section 8 of the United States constitution, Congress is authorized "to lay and collect taxes, duties, imposts and excise, to pay the debts and provide for the . . . general welfare of the United States." It has commonly been held⁵⁹ that the general welfare clause is not in itself a grant of power but merely a limitation upon the taxing power; thus such taxes as are raised must be used for the common defense and general welfare of the United States. Yet inversely money which is raised by taxation may be used for what Congress determines to be the

⁵⁷ *In re Wolf*, 27 Fed. 606 (1886).

⁵⁸ *State v. Big Sheep*, *supra*, note 56.

⁵⁹ See *Binns v. United States*, 194 U. S. 486 (1903).

general welfare, provided always that no other section of the constitution is violated by such expenditures.

As a general rule, Congress under this clause has undertaken to stimulate state activities in various fields, either by direct grants of funds to state agencies dependent upon the fulfillment of certain conditions regarding their expenditure, or by establishing federal agencies with trained personnel whose services would be available to the states upon a co-operative basis or entirely gratis.

In so far as wild-life conservation goes, Congress has taken the latter method, that of providing federal agencies whose personnel would work in cooperation with state conservation departments. Specifically, agencies have been established dealing with three distinct types of problems: (1) control of predatory animals and rodents, (2) fish, and to some extent, game propagation, and (3) research.

The Biological Survey undertakes to control the predatory animal and rodent situation through a part of its organization known as the Division of Game Management. As a rule, the states themselves or groups of individuals within the states are expected to meet part of the cost of operation within each area. In fact, the expenses have in the past been divided between the federal government and cooperating groups upon the basis of 33 per cent to 66 per cent. The work of the Survey in this field and others will be discussed at length in a later chapter.

The maintenance of fish hatcheries by the Bureau of Fisheries and of migratory bird and big game refuges by the Biological Survey constitutes another activity of the national government. From time to time the fish-propagation activities of the federal government are attacked on the ground that they are an invasion of the sphere of the states. A closer examination of the type of work being done by the national government must lead one to the conclusion that the charge is rarely true.

In the first place, a large part of the fish spawn are destined for the deep-sea fisheries which are within the federal sphere. In the fiscal year 1932, for example, 78 per cent of the output of the federal hatcheries were marine or deep-sea species.⁶⁰ Of the remainder a good part are placed in interstate waters where they may benefit a number of states. That field, although not so exclusively a federal one, certainly should not be closed to federal activities.

This leaves only the inland fish propagation work. This at first glance is entirely a state sphere, yet a good part of the inland fish raised in federal hatcheries are used to stock national property located inland, such as national parks, national forests, Indian reservations, and impounded waters on reclamation projects.

Research in wild-life problems is carried on by most of the divisions in both the Biological Survey and the Bureau of Fisheries. The results of this research is made available to state agencies. It is common, too, for the states to request the loan of trained personnel from the federal government to solve particularly difficult problems facing them.

In the matter of research, much is to be said in favor of a broad federal program. Scientific research demands career experts because results are generally obtained only with a high degree of specialization. The average state wild life department cannot afford to maintain a large staff of scientists whose work may only be of occasional practical value to that particular state.

The Sphere of the Federal Government in Wild-Life Conservation: At first glance it would seem that the whole problem of the proper division of power between the Federal government and the states in the field of conservation

⁶⁰ *Report of the Commissioner, Bureau of Fisheries, p. 533 (1932).*

could be avoided by turning the entire subject over to one or the other. But after more mature thought it becomes evident that the states cannot, and the Federal government should not be intrusted with the task of wild-life conservation alone.

The states cannot handle the whole problem themselves because conservation work on the high sea and in the territories outside the boundaries of any state is completely beyond their jurisdiction. Only the Federal government can be responsible for wild life in these areas. Clearly, too, the Federal government must continue to bear the primary responsibility for conservation measures on Federal property, parks, and forests.

Constitutional and legal obstacles on the other hand stand in the way of making the Federal government solely responsible for wild-life conservation throughout the United States. It would, for example, be necessary to amend the constitution and add a provision delegating control over all wild animals to the national government. In view of the lack of a universal demand for an amendment of that nature, it would be a long and difficult task to make such a change.

In addition, from a purely administrative point of view, it would be most unwise. Turning over all conservation activities to the Federal government would necessitate a uniform game code and the creation of a nation-wide warden force of from five to eight thousand men. One might conclude from the dismal failure of the attempt to enforce the National Prohibition Act that such a game code would be extremely unpopular as well as unenforceable. Thus any advantages that might accrue through simplification from vesting complete control over conservation in the Federal government would be far outweighed by the practical disadvantages of such a system.

Consequently, one can only reach the conclusion that there must continue to be a division of responsibility between the Federal and state governments. However, when one goes a step further, and attempts to define the sphere of each, he is faced with an extremely difficult matter. Even the familiar administrative canon dividing regulatory and promotional functions cannot be strictly followed as a line of demarcation between the Federal government and the states in conservation activities. The work of the Federal government should be chiefly promotional, but it must enter the field of regulation to protect the states against shipment of game in interstate commerce contrary to state law. It must also enter the regulatory field to fix minimum standards in relation to migratory game and especially game birds.

On the other hand, though the state must bear the chief burden of the regulatory work, it should supplement the promotional work of the Federal government by building fish hatcheries, establishing game preserves, and educating public opinion to the value of wild life. In all these enterprises the Federal government should continue, as it does at the present time, to supply stimulation and advice.

CHAPTER IV

THE SPHERE OF THE STATE GOVERNMENT IN WILD-LIFE CONSERVATION

IMPORTANT as have been the powers exercised by the national government over wild life, the powers of the state governments are of still greater importance. Our federal system, as has already been pointed out,¹ permits the national government to exercise only such powers as have been delegated it by the United States constitution, while the states are constituted the depository of all remaining powers, not expressly forbidden them by the constitution.

The authority of the national government over wild life has arisen not from any power expressly delegated to it by the constitution but rather incidental to the exercise of other delegated powers. Because of that fact, it therefore remains to the state governments, within certain limits, to exert the chief control over wild life in the continental area of the United States.

The Legal Basis of State Control: The authority of the state government over animals *ferae naturae*² is founded upon two legal principles; the first is known as the "police

¹ *Supra*, p. 31.

² Animals *ferae naturae* includes both fish and game, the meaning of which varies from state to state. In general "game" means birds and beasts of a wild nature obtained by fowling and hunting; "fish" in its broadest sense, is a designation of any aquatic animal. See *Gratz v. McKee*, 258 Fed. 335 (1919); *Meul v. The People*, 198 Ill. 258, 64 N. E. 1106 (1902).

power," i. e. the power to legislate for the health, safety, and morality of its inhabitants, and the second, the principle that the state owns animals *ferae naturae* found within its borders in its sovereign capacity.³

These two principles are distinct and separate, for in *Geer v. Connecticut*⁴ the United States Supreme Court said:⁵

Aside from the authority of the state, derived from the common ownership of game and the trust for the benefit of its people which the state exercises in relation thereto, there is another view of the power of the state in regard to property in game, which is equally conclusive. The right to preserve game flows from the undoubted existence in the state of a police power to that end.

The existence in the state of a police power to conserve animals *ferae naturae* by regulating their taking is so widely accepted that it hardly needs further discussion. The United States and individual state constitutions, however, do hedge that authority around with certain restrictions, which will be discussed later.⁶

The Principle of State Ownership of Animals feræ naturæ: The first clear-cut definition of the ownership theory as distinct from the police power is found in the *Geer Case*. The various state courts that refer to it prior to that time do so in such a manner as to confuse the authority arising out of the police power with that arising from owner-

³ *Geer v. Connecticut*, 161 U. S. 519, (1896); *State v. Rodman*, 58 Minn. 393, 59 N. W. 1098 (1894); *State v. McCullough*, 96 Kan. 786 (1915); *Chambers v. Church*, 14 R. I. 398 (1884).

⁴ 161 U. S. 519, 16 S. Ct. 600 (1896).

⁵ *Ibid.*, at p. 534. The court later in *Lacoste v. Dept. of Conservation*, 263 U. S. 545 (1920) cited the above case for the twofold basis of the state's authority.

⁶ *Infra*, p. 64.

ship.⁷ For example, the Minnesota Supreme Court in *State v. Rodman*,⁸ two years before the *Geer Case*, said:

We take it to be the correct doctrine in this country that ownership of wild animals, so far as they are capable of ownership, is in the state, not as proprietor, but in its sovereign capacity, as the representative, and for the benefit, of all its people in common. The preservation of such animals as are adapted to consumption as food, or to any other useful purpose, is a matter of public interest; and it is within the police power of the state, as the representative of the people in their united sovereignty, to enact such laws as will best preserve such game . . .

The cases decided by the United States Supreme Court regarding animals *ferae naturae* prior to the *Geer Case* might be distinguished on the grounds that they involved an essentially different principle. *McCready v. Virginia*⁹ concerned the taking of oysters from the tide waters of Virginia. The court following the precedent of *Martin v. Wadell*,¹⁰ which held that the ownership of the land under water from the low-water mark to the three-mile limit had passed from the English crown to the states when the colonies declared their independence, ruled that the state, therefore, owned the animals *ferae naturae* living in those waters. The *Geer Case*, however, involved wild animals living on land not owned by the state and thus was essentially different. The rule applied in the *McCready Case* would not necessarily apply in the *Geer Case*.

⁷ The first mention of the ownership theory in American cases that the writer has found occurred in *Magner v. The People*, 97 Ill. 320 (1881).

⁸ 58 Minn. 393, 59 N. W. 1098 (1894).

⁹ 94 U. S. 395 (1876); *Manchester v. Massachusetts*, 139 U. S. 240; 11 Sup. Ct. 559 (1890) regarding the power of the state to regulate the taking of fish within the bays of Massachusetts, could be distinguished on similar grounds.

¹⁰ 16 Peters 367 (1842).

The facts in the *Geer Case* were these: a Connecticut statute forbade the possession of game birds at any time, no matter whether taken during the open season under license or not, provided that they had been acquired for the purpose of transporting them from the state. Geer, as the law permitted, had bought some game birds from a person who presumably had taken them legally. The sole question before the court was whether the state of Connecticut had the power to regulate the killing of game within her borders so as to confine its use to the limits of the state, and forbid its transportation outside of the state. As part of that major question the point was raised whether the game had become an article of interstate commerce, thus whether the state law forbidding its export placed a burden on interstate commerce contrary to the commerce clause of the national constitution.

The United States Supreme Court speaking through Justice White held that the state owned wild animals in its sovereign capacity for the benefit of all its people. The individual might legally take game, said the court, only upon such conditions as the state chose to impose. In this case the qualification prohibiting the game from becoming an article of external commerce, entered into and formed a part of every transaction. Thus at no time did the game become an article of interstate commerce within the meaning of the commerce clause.

Justice White, who wrote the decision,¹¹ attempted to show that the governing power in all countries has had the well-recognized right to regulate the taking of animals *ferae naturae* for the common good, i. e. under the police power. Not until he reaches the discussion of the English common law does he introduce the idea of ownership by the sovereign power, stating,

¹¹ Justices Field and Harlan dissented while Justices Brewer and Peckham not having heard the case took no part in the decision.

The common law of England also based property in game upon the principle of common ownership and therefore treated it as subject to governmental authority.

Justice White goes on to say,

Undoubtedly this attribute of government to control the taking of animals *ferae naturae* which was thus recognized and enforced by the common law of England, was vested in the colonial governments, where not denied by their charters or in conflict with grants of royal prerogative. It is also certain that the power which the colonies thus possessed passed to the States with the separation from the mother country, and remains in them at the present day, in so far as its exercise may be not incompatible with, or restrained by, the rights conveyed to the federal government by the constitution.

He points out that while the state took the place of the English government with relation to the exercise of the police power, so the state took the place of the English king with relation to ownership of wild game and fish. Thus the two-fold doctrine upon which rests the state's authority over animals *ferae naturae* developed.

Blackstone's Interpretation of the Common Law: Justice White's reliance upon Blackstone's interpretation of the common law is no doubt responsible for the theory that the king, as sovereign, owned game animals, for he quotes Blackstone as follows:

There still remains another species of prerogative property, . . . the property of such animals *ferae naturae* as are known by the denomination of "game" with the right of pursuing, taking, and destroying them, which is vested in the king alone, and from him derived to such of his subjects as have received grants of a chase, a park, a free warren, or a free fishery . . .

At another point in his *Commentaries*, Blackstone elaborates upon the ownership theory, stating that animals *ferae*

naturae, notwithstanding the general introduction of property, still remained in common but,¹²

. . . as disturbances and quarrels would arise among individuals, contending about the acquisition of this species of property by first occupancy, the law has therefore wisely cut up the root of the dissension by vesting the things themselves in the sovereign of the state, or else in his representative appointed and authorized by him, usually the lord of the manor.

Supporting his view with what appears to be a reasonable explanation, Blackstone says that the king had exclusive right to take wild game because he was,¹³

. . . the ultimate proprietor of all lands in the kingdom they being held to him as the chief lord . . . and therefore he had the right to universal soil, to enter thereon, and to chase and take such creatures at his pleasure: as also upon another maxim of the common law . . . that these animals are *bona vacantia*, and having no former owner, belong to the king by his prerogative. As therefore the former reason was held to vest in the king a right to pursue and take them anywhere; the latter was supposed to give the king and such as he should authorize a sole and exclusive right.

Blackstone's Interpretation Questioned: Edward Christian¹⁴ first challenged the historical accuracy of Blackstone's interpretation of the common law in his *Treatise on the Game Laws* published in 1817. The evidence which he produced at that time and the research of modern historians,

¹² 2 Blackstone 14. Justice White does not quote this particular passage but the decision implies acceptance of Blackstone's theory of royal ownership.

¹³ *Ibid.*, p. 415. The author realizes that so far as the federal courts are concerned, the interpretation of the English common law as set forth in *Geer v. Connecticut* is binding. See Rope, Herbert, *The English Common Law in the United States*, 24 Harvard Law 6 (1910).

¹⁴ Legal writer of early 19th century.

notably of Sir William Holdsworth,¹⁵ leaves scarcely any room for doubt that Blackstone erred in his explanation.

Christian contended if all wild game, no matter where found, belonged to the king under the common law, then why should swans be singled out and declared royal birds? He especially cites the *Case of the Swans*,¹⁶ in which Justice Coke declares,

The swan is a royal fowl; and all those the property whereof is not known, do belong to the king by his prerogative; and so whales and sturgeons are royal fish, and belong to the king by his prerogative . . . and when the property of a swan can not be known, the same being by nature a fowl royal, doth belong to the king . . . And the king may grant wild swans unmarked.

Holdsworth traced the theory of royal ownership to Bracton¹⁷ from whom Blackstone drew it, but says,¹⁸

There is no reason to think that this [wild game, the property of the crown] was ever the law of England. The king may, it is true, have claimed that he was the owner of all wild animals, just as he may have claimed to be owner of all mines; but just as his claims over mines came to be limited to mines of a special kind, so his claims to wild animals came to be limited to a few varieties such as swans and whales; and even in these cases his rights were subject to all sorts of limitations.

The Royal Prerogative of Afforesting Land: The Norman kings had claimed and exercised the prerogative of

¹⁵ Professor of English Law, Oxford University. This view has the support of other commentators, see comments of Judges Coleridge, Chitty, and Bell in footnotes, *Blackstone* (Sharwood's ed.), Philadelphia (1867), p. 410.

¹⁶ 7 Coke 16, 77 Eng. Rep. 435 (1585).

¹⁷ See also Maitland's commentary in "Bracton and Azo," p. 103, *Seldon Society Papers*.

¹⁸ Holdsworth, Wm., *History of the English Law*, London (1925), vol. vii, p. 491.

making royal forests at their pleasure of the lands of their subjects, within which game was protected under severe penalties. Yet the first Forest Charter¹⁹ extorted from Henry I in 1217 disafforested all lands but demesne woods,²⁰ implying that the afforestation had been an abuse of the prerogative. Later when Henry became of age he afforested certain lands which were made the subject for complaint in 1260. In 1277, 1298 and again in 1300 there were extensive disafforestations and the forests that were left remained stationary in size during the next three centuries.²¹

By the beginning of the sixteenth century the prerogative of afforestating the land of subjects had so far fallen into disuse that when Henry VIII wished to afforest the land around Hampton Court, he obtained statutory authority and provided compensation for the tenants of the land.²² Thus the king's right to afforest land came to be limited under the common law, like his rights over mines, to the demesne hold.²³

Nor did the making of forests mean that the king ever claimed anything more than qualified property in the game found therein, which merely meant that he had the exclusive right to take the wild game while it remained in the forest. The forest law protected wild game only while it remained within forest bounds, and similarly it gave additional protection to landowners holding grants from the king authorizing them to establish free warrens on their demesne lands.²⁴

¹⁹ Barrington, Boyd, *The Magna Charta and Other Charters*, Philadelphia (1900).

²⁰ Exception in case of certain addition made to ancient Saxon forests called "purlieus" which were open to hunting to persons who owned land therein. Christian, *op. cit.*, p. 31.

²¹ Holdsworth, *op. cit.*, vol. i, p. 102.

²² *Ibid.*, p. 102.

²³ *Ibid.*, p. 152.

²⁴ *Ibid.*, p. 101; Christian, *op. cit.*, p. 58.

The royal grants to a private individual created an estate separate and distinct from the land which did not pass with the land upon assignment. Therefore it might happen that the right to take the so-called beasts of the warren would be held by one person to the exclusion of the owner of the soil.²⁵ This was called *ratione privilegii*, a right which is valid today if any of the old franchise still exists.²⁶

Since the rise of the common law, the king's property in animals *ferae naturae*, with the exception of swans, sturgeon, and whales, was essentially no different than that of any other landowner. He could afforest his demesne lands at will but if he afforested others, he must buy the right from the landowners. The only difference lay in the fact that game in his forests was given additional protection by a special code, known as the Forest Law, a protection which he extended to certain favored landowners for their parks and warrens in varying degree by means of the special franchises.

The King had Qualified Property in Game Within the Forests: Once the wild game had left the royal forest the king's property in it was lost. A famous case cited by Keilway and copied by Manwood²⁷ well illustrates this point. The case was an action for trespass against a forester who entered on private lands adjoining a royal forest for the purpose of driving back four deer which had escaped therefrom. The court in its decision drew a distinction between ownership in tame animals and wild ones, holding that deer being animals *ferae naturae*, the kind had property in them only so long as they remained in the forest. But neither the

²⁵ *Duke of Devonshire v. Lodge*, 7 B. & C. 35 (1827).

²⁶ Holdsworth, *op. cit.*, vol. vii, p. 492.

²⁷ Manwood, John, *Treatise and Discourse of the Laws of the Forrest*, London (1598), p. 202. Manwood refers to this case but does not cite it other than to Keilway.

crown nor anyone else had possession or full ownership of the animals therein until they were captured or killed. The king's right was merely to take game within the area of the forest. It was what Coke later called "qualified property."²⁸

This principle was no different in the case of the holder of a special franchise and the ordinary landowner. He could,²⁹

. . . only claim the beasts as his, that is in possession, if they were too young to move themselves from his land. Even if a beast strayed from the forest, the king lost his qualified property in it and a fortiori this happened in the case of lesser persons. The only modification admitted was in the case where the owner of the land or franchise started a beast on his own land and killed it on the land of another. In that case the beast was his.

As the forest law decayed³⁰ with the development of the common law, the sporting rights of the land owners ceased to be protected by their grants of park or warren and they turned to Parliament for aid. The result was the game laws,³¹ which limited the right to take wild animals, defined as game, to owners of land of a specified value, confirmed their rights and gave them additional protection just as in the early Middle Ages the franchises of chase and warren had given them additional protection of a similar sort.³² This change from the forest law to the game laws came gradually over a period of several centuries.

²⁸ *Case of the Swans*, 7 Coke 16, 77 Eng. Rep. 435 (1585).

²⁹ Holdsworth, *op. cit.*, vol. vii, p. 493.

³⁰ Began to weaken during 13th century and by 1700 would appear forests valued more for timber than for sport. By 1830 last of the official forest posts were abolished.

³¹ Called "qualification acts," first passed in 1389.

³² Holdsworth, *op. cit.*, vol. vii, p. 493.

The Modern English View of Property in Game: The case of *Blades v. Higgs*,³³ decided by the House of Lords in 1865 exhaustively considered the whole question of ownership in animals *ferae naturae* and has come to be regarded as the ruling English case on the subject. To that court the sole question seemed to be whether the English law followed the Roman rule, as expressed by Justinian, that wild animals become the property of the person reducing them to possession no matter where that reduction had taken place,³⁴ or whether the landowner because of his ownership of the soil has an exclusive right to the wild animals found upon it or flying over it.

In deciding that the latter rule was the correct interpretation of the common law the House of Lords cited a long line of English cases as precedents.³⁵ The theory of exclusive royal ownership does not appear to have been considered in the case at all. The right of Parliament to legislate regarding the taking of wild game is of course recognized but it seems to be assumed by the court that the game laws were for the purpose of protecting the rights of the landowners.

Thus it seems clear that under the English common law the king did not own all the game and fish in the kingdom and that Blackstone erred in his interpretation of the common law. Justice White in accepting Blackstone, likewise fell into the same error.

The Effect of the Doctrine of State Ownership: The major result of this error has been to enable the states to

³³ 11 H. L. C. 621, 11 Eng. Rep. 1474 (1865).

³⁴ Bk. 41, Til. 1-2, *De Adquir Rer. Dom.*

³⁵ *The Coneys Case*, Godbolt 122, 78 Eng. Rep. 75 (1590); *Case of Boulston*, Cro. Eliz. 547, 5 Co. Rep. 105 (1583); *Churchward v. Studdy*, 14 East 249 (1811); *Earl of Lonsdale v. Rigg*, 11 Exc. 654 (1856); *Sutton v. Moody*, 1 Lord Raymond 250 (1697).

allow their own citizens the right to take certain species of wild game and fish to the exclusion of citizens from other state, which, but for the doctrine of state ownership, would be contrary to the "privileges and immunities clause" of the United States constitution.³⁶

No Change in the Law Since the Geer Case: Later decisions of the United States Supreme Court have not reversed the *Geer Case*. The decision in *Patson v. Pennsylvania*³⁷ can best be interpreted keeping in mind the ownership theory, although Justice Holmes who wrote the decision avoids direct mention of it. Likewise in *Missouri v. Holland*.³⁸ Mr. Justice Holmes only mentions the theory to point out that its action is limited to regulation between the state and the individual rather than the state and the national government.

However in *LaCoste v. Department of Conservation*³⁹ Justice Butler makes the ownership theory one of the major grounds for the decision. These references taken together with the numerous state supreme court decisions leaves no doubt that the ownership theory is still considered valid although with the broadening of the interpretation of the police powers of the state there is not as much need for it as formerly.

Limitations Imposed by the Commerce Clause upon State Control: There remains for consideration the limitations imposed upon state control by the United States constitution. One of the most important sections of that document is the commerce clause, which states that, "The Congress shall have power . . . to regulate commerce with foreign

³⁶ Art. iv, sec. 1.

³⁷ 232 U. S. 138 (1914).

³⁸ 252 U. S. 416 (1919).

³⁹ 263 U. S. 545 (1920).

nations and among the several states and with the Indian tribes." ⁴⁰

Prior to the case of *Geer v. Connecticut* ⁴¹ there had been a conflict in the decisions of the state courts in its application to the shipment of wild game. They were agreed upon the validity of state statutes prohibiting the exportation or importation of illegally killed game, but were in disagreement regarding legally killed game. The question was considered from two different angles, first, whether a state could prohibit the exportation of game legally killed in the state during the open season; and second, whether a state could prohibit the importation during the closed season of game legally taken during the open season in some other state.

The Supreme Courts of Kansas and Idaho ⁴² held that a state prohibition of the export of game legally killed within the state to another state to be a violation of the commerce clause, while the Supreme Courts of Minnesota, Arkansas, and Connecticut ⁴³ ruled the opposite upon the same point. The question was finally settled when the case of *State v. Geer* ⁴⁴ was appealed to the United States Supreme Court. In its decision the court said: ⁴⁵

It is indeed true that in certain cases it was held that a state law prohibiting the shipment outside of the state of game killed therein violated the interstate commerce clause of the constitution of the United States, but the reasoning which controlled the decision in those cases is, we think inconclusive, from the

⁴⁰ United States Constitution, art. i, sec. 8.

⁴¹ 161 U. S. 519, 16 S. Ct. 600 (1896).

⁴² *State v. Saunders*, 19 Kan. 127 (1877); *Territory v. Evans*, 2 Id. 658 (1890).

⁴³ *State v. Rodman*, 58 Minn. 393 (1894); *Organ v. State*, 56 Ark. 267 (1892); *State v. Geer*, 61 Conn. 144 (1891).

⁴⁴ 61 Conn. 144 (1891).

⁴⁵ *Geer v. Connecticut*, 161 U. S. 519, 16 S. Ct. 600 (1896).

fact that it did not consider the fundamental distinction between qualified ownership in game and the perfect nature of ownership in other property, and thus overlooked the authority of the state over property in game killed within its confines, and the consequent power of the state to follow such property into whatever hands it might pass with the conditions and restrictions deemed necessary for the public interest.

* * * * *

The sole consequence of the provision forbidding the transportation of game, killed within the state, beyond the state, is to confine the use of such game to those who own it, the people of that state. The proposition that the state may not forbid carrying it beyond her limits involves, therefore, the contention that a state cannot allow its own people the enjoyment of the benefits of the property belonging to them in common, without at the same time permitting the citizens of other states to participate in that which they do not own.

* * * * *

The power of a state to protect by adequate police regulations its people against the adulteration of articles of food (upheld in *Plumley v. Mass.*, 155 U. S. 461) although in doing so commerce might be remotely affected, necessarily carries with it the existence of a like power to preserve a food supply which belongs in common to all the people of the state, which can only become the subject of ownership in a qualified way, and which can never be the object of commerce except with the consent of the state and subject to such conditions as it may deem best to impose for the public good.

Upon the second question, whether a state could prohibit the importation during the closed season of game legally taken during the open season in some other state, the state courts fortunately were in agreement. The Supreme Court of Missouri in *State v. Heger*⁴⁶ pointed out that in the *Geer* case, the United States Supreme Court had based its de-

⁴⁶ 194 Mo. 707, 93 S. W. 252 (1906).

cision partly upon the point that as the state conditioned the acquiring of property in game upon the understanding that it should not be exported from the state, it could never become an article of commerce in the real sense of the word.⁴⁷ Logically then if the state wherein the game was killed had not attached such a qualification, the game did become an article of commerce and a state could not prohibit its importation. Congress alone could enact such a prohibition, and had done so by the Lacy Act of 1900.⁴⁸ The matter was therefore settled.

This act of Congress declared that the dead bodies of game animals shipped into a state should upon their arrival within its borders be subjected to the operation of its laws in the same manner as though the animals had been killed in the state. It was similar to the act⁴⁹ placing liquor shipments under the state's police power which was upheld in *In re Rahrer*.⁵⁰

The United States Supreme Court has held valid a severance tax placed by the legislature of Louisiana in 1920, upon all hides, skins, and furs of animals killed within the state, denying that it placed a burden on interstate commerce.⁵¹ The court stressed the point that the tax was levied on all skins taken in the state, no distinction being made between those manufactured in the state and those shipped out. The fact that the greater portion happened to be shipped in interstate commerce did not affect the result.

⁴⁷ The Illinois Supreme Court used similar reasoning when this same point was raised at an earlier date in the *Magner Case*, see 97 Ill. 320 (1881) holding that game illegally taken in Kansas and exported from that state never became an article of commerce in the real sense of the word, and therefore Illinois might prohibit its importation.

⁴⁸ 31 Stat. L. 1039.

⁴⁹ 26 Stat. L. 313.

⁵⁰ 140 U. S. 545, 11 S. Ct. 865 (1891).

⁵¹ *Lacoste v. Dept. of Conservation*, 263 U. S. 545 (1920).

However, another Louisiana statute of 1926 requiring that the head and hull of all shrimp caught in the state be removed before being shipped out was held invalid as imposing such a burden.⁵² *Geer v. Connecticut*⁵³ was distinguished on the grounds that the purpose of the Connecticut statute was to keep wild game exclusively for the use of its citizens by forbidding shipment out of the state, while the Louisiana statute did not require any part of the shrimp to be kept in the state. After the head and hull had been separated, either part could be shipped at will in interstate commerce in unlimited quantities. Clearly the purpose of the act, said the court, was to require the canning industry to locate its plants in the state and, therefore, it was invalid as imposing a burden upon interstate commerce. If a general rule could be drawn from these decisions, it would seem to be that a state may not interfere with interstate commerce unless for the purpose of keeping the wild animals within the state for the benefit of the people of the state.

Limitations Imposed by Privileges and Immunities Clause upon State Control: The clause of the United States constitution providing that,⁵⁴ "The citizens of each State shall be entitled to all privileges and immunities of citizens in the several States," has not proved to be a major check on the state's power of control because of the doctrine that property in wild animals by right is limited, in each case, to the citizens of the state in which they are found. The United States Supreme Court likened this ownership to that of public domain, saying:⁵⁵

⁵² *Foster-Fountain Packing Co. v. Haydel*, 278 U. S. 1 (1928).

⁵³ 161 U. S. 519, 16 S. Ct. 600 (1896).

⁵⁴ Art. iv, sec. 1.

⁵⁵ *McCready v. Virginia*, 94 U. S. 395 (1876).

We think we may safely hold that the citizens of one state are not invested by this clause of the constitution with any interest in the common property of the citizens of another state. If Virginia had by law provided for the sale of its once vast public domain and a division of the proceeds among its own people no one would contend that the citizens of other states had a constitutional right to the enjoyment of this privilege of Virginia citizenship. . . . And as all concede that a state may grant to one of its citizens the exclusive use of part of the common property, the conclusion would seem to follow, that it might by appropriate legislation confine the use of the whole to its own people alone.

Limitation Imposed by the Equal Protection of the Laws Clause upon State Control: Numerous discriminatory laws regarding hunting and fishing have been passed by the states in favor of their own citizens and upheld on the basis of the doctrine above quoted. A law discriminating between citizens of the state, however, may be a violation of the constitutional clause guaranteeing to all persons within the jurisdiction of a state equal protection of the laws.⁵⁶

This clause does not prevent a state from closing certain areas to hunting, nor from forbidding the killing of certain species, but the state may not grant to the inhabitants of one county the exclusive right to take game within the county to the exclusion of other residents of the state nor upon more favorable terms.⁵⁷ The Florida Supreme Court speaking of this matter in *State v. Bryan*⁵⁸ said:

The Legislature in protecting game may in its discretion limit a statute in the extent and purpose of its operation, but the

⁵⁶ 14th amendment, sec. 1.

⁵⁷ A state may provide lesser fees while hunting within the county of residence, but such a reduction must apply to all counties within the state.

⁵⁸ 87 Fla. 56, 99 So. 327 (1924).

regulation must operate upon all persons alike under practically similar conditions and circumstances . . . when a statute designed for the protection of game by its plain terms excludes from its benefits a portion of the residents of the state, or imposes upon some residents burdens not put upon other residents with reference to the subject regulated and there appears to be no real difference in conditions to fairly justify the classification as made, the statute may in effect deny to residents of the state equal protection of the laws.

As against a classification of resident and non-resident, equal protection of the law has rarely been successfully invoked. Although an act of the legislature of Arkansas forbidding a non-resident, even though owning land in the state, to hunt or fish at any time and allowing a resident such privileges was held a denial of equal protection by the Supreme Court of that state. As the case⁵⁹ stands as a solitary exception it might be well to consider it in detail.

The bench was divided and the minority justices presented an able dissent. The opinion of the majority was based upon the theory that a landowner's right to take game found on his land was a property right. Therefore, a statute preventing a non-resident from exercising that right was a denial of equal protection of the law between landowners. The court considered the *Geer case* and distinguished it on the grounds that,

It is not the fact that the appellee is excluded from enjoyment of the common right of the citizen to fish and hunt because of his non-residence that he may complain, but of the exclusion by reason of his non-residence from such special right which he enjoys in common with other landowners.

The minority contended that the right to take game found on one's land holds as between one individual and another

⁵⁹ *State v. Mallory*, 73 Ark. 236, 83 S. W. 955 (1904).

but that it does not constitute a right as against the paramount authority of the state. They might also have well argued that the statute did not take away a property right. The property consisted of the "exclusive right to take wild game" found on a certain piece of land. That right remained; true the appellee could not use that right himself because he was not otherwise qualified, but it still had value and still remained vested in him. He could sell or lease the right to any qualified person. It was never the theory in England where the principle first arose, that the right to take game because of ownership of the land vested in the individual.⁶⁰ The same situation arose there and was met by allowing the landowner to lease the right to take game to any qualified person.

If the majority opinion were sound, then with equal force it might be contended that a foreign corporation owning land in the state could not be subjected to any requirement to which a domestic corporation was not subject. Obviously the court confused the property right with the individual right whereas they should be considered separately.

The statutes which are the most often challenged are those which either entirely forbid aliens to hunt or require them to pay a higher license fee than do other residents. The courts have uniformly upheld such a classification as constitutional.⁶¹ Consequently should the state forbid aliens to hunt it may, under the police power, go a step further and forbid them to own guns used in hunting.⁶²

The constitutional limitations imposed upon the state by its own constitution vary greatly from one state to another and will not be discussed in detail here. It is sufficient to say that the courts have tended to interpret them in such a

⁶⁰ Christian, Edward, *Treatise, op. cit.*, p. 116.

⁶¹ *Patson v. Pennsylvania*, 232 U. S. 138 (1914).

⁶² *Ibid.*

manner as to leave the states a wide latitude of discretion in control over wild animals.

How an Individual Acquires Property in Animals ferae naturae:

There are three manner of rights of property that is, property absolute, property qualified, and property possessory. A man hath not absolute property in anything that is *ferae naturae* but in those which are *domitae naturae*. Property qualified and possessory a man may have in those which are *ferae naturae*; and to such property a man may attain in two ways, by industry or *ratione impotentiae et loci*; by industry as by making them *domesticatae* but in those which are *ferae naturae*, and by industry made tame, as man hath but a qualified property in them, scil. so long as they remain tame for if they do attain to their natural liberty . . . the property is lost . . . *ratione impotentiae et loci*; as if a man has young shoveler or goshawks which are *ferae naturae* and they build on my land, I have possessory property in them, for if one takes them when they can not fly the owner of the soil shall have an action for trespass . . .

It is thus that Coke classifies property in wild animals,⁶³ and his statement that a person may obtain qualified property by capturing an animal usually wild and confining it in captivity, seems to apply with equal force in modern American law today.⁶⁴ The determination of which animals are usually wild has proved to be a knotty legal problem.⁶⁵ The distinction is of great importance⁶⁶ because property in domesticated animals continues wherever they may stray,

⁶³ *Case of the Swans*, 7 Coke 15, 77 Eng. R. 435 (1585).

⁶⁴ *Dieterich v. Fargo*, 194 N. Y. 359, 87 N. E. 518 (1909).

⁶⁵ Kent in his *Commentaries* points out the difficulty of drawing the line between animals naturally wild and those which have been domesticated. 2 Kent 348.

⁶⁶ Especially in view of the rapidly increasing amount of capital invested in fur farms both in the United States and Alaska.

while property in wild animals, temporarily confined, is lost when they escape from confinement.⁶⁷

The Romans considered animals by nature divided into two classes, those naturally wild and those naturally tame.⁶⁸ Whether an animal fell into one class or another was determined by an arbitrary classification. In England⁶⁹ and the United States with the development of the theory that all animals had once been wild, the determination of when an animal ceased to be wild and could be classed as domesticated came to be considered a question of fact for the jury. Thus in the case of *Morgan v. Earl of Abergavenny*,⁷⁰ involving a herd of deer which had been enclosed for a long term of years, fed by game keepers and when fat sold for food, an English court said,

Upon the question whether deer are tamed and reclaimed, each case must depend upon the particular facts of it; and in this case, the Court thinks the facts were such as were proper to be submitted to the jury . . .

The jury held them to be tame deer. The same conclusion regarding a herd of deer raised under similar conditions was reached by an American court in *Dieterich v. Fargo*.⁷¹

Even in the case of wild animals which have escaped from confinement, property continues in them provided it

⁶⁷ *James v. Wood*, 82 Maine 173, 19 Atl. 160 (1889).

⁶⁸ *Institutes of Justinian*, Bk. II, tit. 1, s. 15, 16.

⁶⁹ It is possible that there was a time when the only animals in which property was recognized were those which were useful for draught or food. As late as 1521 it was argued that no property could exist in tamed animals, such as dogs, cats, or song birds, the only use of which was to give pleasure to their owners. *Case of the Dogs*, Y. B. 12 Hy. VII, Trin. pl. 3.

⁷⁰ 8 C. B. 768, 137 Eng. R. 710 (1849).

⁷¹ 194 N. Y. 359, 87 N. E. 518 (1909).

can be shown that they have become sufficiently tame so that they will return of their own accord.⁷² This is an exception to the general rule.

Of course there is considerable difficulty in determining whether such intention to return exists. Even then should a group of wild animals of a menagerie escape from their owner's immediate possession, and to all appearances give no intention of returning, his property in them continues while they are within a reasonable distance. But a sea lion escaping from a pool near New York City to the Atlantic Ocean and caught seventy miles distant therefrom was considered as having regained his freedom.⁷³ It was not necessary, said the court, that he return all the way to his native haunts in the Pacific.

At its best the principle is vague. The most that can be said of it, is that the courts have tended to hold that wild animals long confined, upon escaping from actual possession but remaining in the near neighborhood are still the property of their former possessor.

Right of the Landowner to Wild Animals Found on His Land: To the two methods of acquiring qualified property in animals *ferae naturae* as listed by Coke may be added two others. Thus the English courts⁷⁴ speak of qualified property existing *ratione soli* and *ratione privilegii*. The latter term pertains to hunting rights as estates created distinct from the land by ancient franchise of the king.⁷⁵ Under these old franchises it is still possible for an individual in England to hold the exclusive hunting rights over another's land.⁷⁶

⁷² *James v. Wood*, 82 Me. 173, 19 Atl. 160 (1889).

⁷³ *Mullett v. Bradley*, 24 Misc. 659, 53 N. Y. S. 781 (1898).

⁷⁴ *Blades v. Higgs*, *op. cit.*, p. 1478.

⁷⁵ See p. 61.

⁷⁶ *Duke of Devonshire v. Lodge*, 7 B. & C. 39 (1827), p. 39.

Property *ratione soli* as interpreted by the English courts ⁷⁷ means no more than the exclusive right to catch or kill animals *ferae naturae* by reason of ownership of the soil upon which they are found. In England it is a right possessed by every landowner unless his land, as in rare cases, falls in the class to which the hunting rights were granted away by royal franchise in the centuries past. As soon as this right is exercised, the animals so killed become the absolute property of the owner of the soil.

Granting that such exclusive right exists in England, suppose a person enters upon land not his own and killing game reduces it to possession, does he thus acquire absolute property in it notwithstanding the rights of the landowner? ⁷⁸ The English courts answer in the negative,⁷⁹ laying down the principle that reduction to possession must not be by means of a wrongful act, for ⁸⁰

. . . it would be unreasonable to hold that the act of the trespasser, that is of a wrong doer, should divest the owner of the soil of his qualified property in the game and give the wrong doer an absolute right of property to the exclusion of the rightful owner. But in game, when killed and taken, there is absolute property in some one, and therefore the property in game found and taken by a trespasser on the land of A must vest either in A, or the trespasser, and if it is unreasonable to hold that the property vests in the trespasser, it must of necessity be vested in A, the owner of the soil.

Whether in the United States the landowner similarly has qualified property in animals *ferae naturae* valid not

⁷⁷ *Blades v. Higgs*, *op. cit.*, p. 1478.

⁷⁸ See interesting discussion on subject in *Justice of the Peace*, vol. 26, p. 467 (1862).

⁷⁹ Note that this rule differs from the Roman law under which reduction to possession gives absolute property no matter where it takes place. Justinian, *Inst. Lib. 2, C. 1, sec. 12*.

⁸⁰ *Blades v. Higgs*, *op. cit.*, p. 1479.

against the state, but against another individual in the absence of a statute to the contrary, is a difficult point to determine. There are few federal cases directly to point. In *Gratz v. McKee*⁸¹ the plaintiff sued to recover the value of certain muscles taken from the bed of a non-navigable stream, the bed of which by the rule in that state was owned by him. The United States Circuit Court of Appeals for the eighth circuit upheld his contention, saying,⁸²

Under the common law as it has existed, and still exists in England, and in general as transmitted to the States of the Union, modified by statutory enactment and supplemented by usage, the owner of the soil would have a qualified, but substantial property interest in the fish and game upon his own land, with the exclusive right to reduce it to possession superior to that of others, and subject only to regulation by the state as a sovereign and under its police power.

The argument advanced by the defendant that the state's ownership of wild animals precluded any action by the plaintiff, the court refused to accept as material in this case, ruling that statutes declaring title to game and fish to be in the state spoke only in aid of the state's power of regulation and left the plaintiff's interest as against another individual what it was before.

The United States Supreme Court,⁸³ speaking through Justice Holmes, upheld the decision of the circuit court but distinguished between muscles and those fish and birds which can move freely from place to place. The court avoided saying that the landowner had qualified property in the latter animals, contenting itself with the statement that at least he had so far as muscles are concerned and may sue to recover their value.

⁸¹ 270 Fed. 713 (1921).

⁸² For contrary view, see *Cooley on Torts*, p. 323 (1932 ed.).

⁸³ *McKee v. Gratz*, 260 U. S. 127 (1922).

Landowner's Rights to Wild Animals Found on Land Covered by Water: Whether qualified property exists in wild animals and fish found on lands covered by water and in the water itself is a somewhat more difficult problem. It is the general rule, to which there are exceptions, that ownership of the soil under water carries with it the exclusive right to hunt and fish in or upon that water.⁸⁴ Equally general and with an equal number of exceptions is the rule that abutting riparian owners on a non-navigable stream own the bed to the middle of the thread,⁸⁵ while on a navigable stream only to high-water mark.⁸⁶ However, as the United States Supreme Court said,⁸⁷

It is presumed that title to the soil under navigable waters within a state is in the state itself but the nature and rights of the state and of abutting riparian owners in navigable waters within the state and to the soil beneath are matters of local law to be determined by statute and judicial decisions of the state.

Even in the matter of determining navigability the states have set up varying tests. In determining whether a stream or lake is navigable within the meaning of the constitutional principle of equality among the several states under which the title to the bed of navigable waters passes to each state upon its admission to the Union, the federal rule is fol-

⁸⁴ Illinois, *Schulte v. Warren*, 218 Ill. 108, 75 N. E. 783 (1905); New York, *Brookhaven v. Strong*, 60 N. Y. 56 (1875); Pennsylvania, *Com. v. Foster*, 36 Pa. Super. 433 (1908); Michigan, *Lincoln v. Davis*, 53 Mich. 375, 19 N. W. 103 (1884).

⁸⁵ *Holyoke Water Power Co. v. Lyman*, 15 Wall. 500, 21 L. ed. 133 (1872).

⁸⁶ *Massachusetts v. New York*, 271 U. S. 65 (1925); *United States v. Holt State Bank*, 270 U. S. 49 (1924); in a few states to low water mark, Virginia, *Greenleaf Johnson Lumber Co. v. United States*, 204 Fed. 489 (1913).

⁸⁷ *United States v. Holt State Bank*, 270 U. S. 49, 46 S. Ct. 197 (1924).

lowed.⁸⁸ The Supreme Court in the *Daniel Ball case*, rejected the English doctrine on navigable waters, saying,⁸⁹

The doctrine of the common law as to the navigability of waters has no application in this country. Here the ebb and flow of the tide do not constitute the usual test, as in England, or any test at all of the navigability of waters. . . . Those rivers must be regarded as public navigable rivers in law which are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.

This is the federal rule and the common test of navigability,⁹⁰ but in some states the courts have given a broader meaning to the term, as did Judge Mitchell for Minnesota, when he said,⁹¹

Many, if not most of the meandered lakes of this state are not adapted to, and probably will never be used to any great extent for commercial navigation; . . . however, we are satisfied that, so long as these lakes are capable of use for boating, even for pleasure, they are navigable, within the reason and spirit of the common law rule.

Under whatever rule adopted, navigability under the common law, modified in some states by statute or constitution, usually determines the ownership of the land under water and that ownership determines the extent of the right to take fish and wild fowl found in the waters above.⁹² When land owned in fee simple, however, is suddenly

⁸⁸ *Fox River Co. v. RR. Commers. of Wis.*, 274 U. S. 651 (1926).

⁸⁹ 10 Wall. 557 (1871).

⁹⁰ See also, *Rowe v. Granite Bridge Corp.*, 21 Pick (Mass.) 344 (1838); *Mutler v. Gallagher*, 19 Or. 375, 24 Pac. 250 (1890); *Burroughs v. Whitman*, 59 Mich. 279, 26 N. W. 491 (1886).

⁹¹ *Lamprey v. State*, 52 Minn. 180, 53 N. W. 1139 (1893).

⁹² *McCready v. Virginia*, 94 U. S. 395 (1876).

flooded, the public have only the right of passage on the waters above it, provided they are navigable, but not the right of fowling and fishing thereon.⁹³

Absolute Property in Wild Animals: Absolute property is acquired only when an individual obtains possession of a wild animal in such a manner as to conform with the law.⁹⁴ Pursuit or the starting of an animal is not possession; it is obtained only when the animal is killed or mortally wounded. Until such time it is considered at large and anyone may legally, however lacking in good sportsmanship it may be, enter upon the chase and by killing the animal obtain possession.⁹⁵

On the other hand, once a person has obtained absolute property in a wild animal by killing it and marking the body in accordance with custom, he retains property in it although it may escape from his immediate possession. Thus Ghen had killed a whale off the north Atlantic coast with a marked bomb lance but the dead body had escaped from his possession. It was picked up by Rich who claimed that as he found the body it was "game escaped from possession" and therefore at large. The court ruled that Ghen had done all he could to mark the body as his property. He used the method common on the fishing coast and which was therefore valid. Reasonable salvage was allowed but that was all.⁹⁶

Extent of State Control under Police Power: The state may under police power regulate the use to which property

⁹³ *Schute v. Warren*, 218 Ill. 108, 75 N. E. 783 (1905); *Sterling v. Jackson*, 69 Mich. 488, 37 N. W. 845 (1888).

⁹⁴ Persons killing animals *ferae naturae* in violation of law acquire no title thereby, *Manning v. Micherson*, 69 Ga. 447 (1882); *Linden v. McCormick*, 90 Minn. 337 (1905).

⁹⁵ *Pierson v. Post*, 3 Caines (N. Y.) 175 (1805).

⁹⁶ *Ghen v. Rich*, 8 Feb. 159 (1881).

in game and fish is put just as it may regulate the use of all other property within its borders for the health and safety of its citizens. For example, a state law forbidding possession after the end of the closed season of any kind of game, including that imported into the state, was upheld in *New York ex rel. Silz v. Hesterburg*,⁹⁷ on the grounds that, "... dealers in game may sell birds of the domestic kind under claim that they were taken in another country."

The same reasoning has been used to uphold the state's control over domesticated animals which although of the same species as those usually wild, have been raised in captivity and are the property of the raiser.⁹⁸ Thus in aid of the state's control over animals *ferae naturae* reasonable regulation of those reduced to possession and of domesticated animals of the same species is allowed.

Conclusion: The state, subject to the limitations imposed by the United States constitution, has broad powers to regulate the taking of animals *ferae naturae*. This authority flows from the existence in the state of the police power and from the theory that the state, in its sovereign capacity, owns wild animals found within its borders. In the exercise of its control of the wild animals, it may make reasonable regulations concerning the breeding, taking, or possession of tame animals.

Turning now from the legal and constitutional aspects of the study, some attention will be given to the administrative structure which has been designed to make state and national regulation effective. In the next three chapters the organization and functions of the principal bureaus of the national government dealing with wild life will be considered, followed by an examination of the state agencies.

⁹⁷ 211 U. S. 31 (1908).

⁹⁸ *Dieterich v. Fargo*, 194 N. Y. 359, 87 N. E. 518 (1909).

CHAPTER V

THE ORGANIZATION AND FUNCTIONS OF THE BUREAU OF THE BIOLOGICAL SURVEY

THE fundamental problem facing the Biological Survey is not the control of predatory animals but the control of predatory men. Wild animals are a natural resource of the nation which may, in the long run, be as vital to its balanced development as its mineral resources. Like other natural resources, wild life is liable to be exploited for the benefit of the "few" notwithstanding the rights of the "many." The true function of the Biological Survey in broad outlines is the protection of the wild game and fur animals as a natural resource in which the whole nation has certain rights.

How well the Biological Survey has carried out its true functions can only be determined by a consideration of its history as an organization, its present-day activities, its administrative organization, its relation to other federal bureaus and to the states, and the problems of policy that face it today. That is what this chapter sets out to do.

*The Beginnings of the Biological Survey:*¹ The Survey had its beginnings in the American Ornithologists' Union which was formally organized in New York City on September 26, 1883, thus becoming the first national association of ornithologists in the United States. At the first congress held during the three days following its organiza-

¹ For detailed history of the Biological Survey, see thorough and well-written study by Cameron, Jenks, *The Bureau of the Biological Survey* (1929), Institute for Government Research, Monograph Series.

tion, three committees were appointed to study bird life. One committee undertook to study the distribution of the various species of North American birds; another, the English sparrow; and a third, bird migrations. This last committee in the course of its work requested the cooperation of ornithologists and observers the country over, asking that they report via questionnaires upon the bird life observed by them.

The response to this appeal was so overwhelming that at the second congress of the Union held the following year, the chairman of the committee, Dr. C. Hart Merriam, reported financial aid must be secured if the work was to continue. The council of the Union turned to the national government, urging that the dissemination of the knowledge obtained from ornithology would be a valuable addition to the agricultural program of the nation. Without great difficulty, the council, largely through the aid of Senator Warren Miller of New York² and Spencer Baird of the Smithsonian,³ was able to secure an appropriation of \$5,000 available July 1, 1885.⁴

The new work was placed under the direction of the Division of Entomology in the Department of Agriculture although the ornithologists would like to have seen it set up as a separate division. The council of the Union at the request of the Commissioner of Agriculture, recommended Dr. Merriam for the post of director, and he was accordingly appointed. Thus the organization which in time was to become the Bureau of the Biological Survey got under way.

² See speech in support of, by Senator Warren Miller, *Congressional Record*, Feb. 20, 1885, p. 1937.

³ See Merriam, C. Hart, "Baird the Naturalist," *Scientific Monthly*, June 1924, vol. v, no. 28, p. 588.

⁴ Act of March 3, 1885, 23 Stat. L. 353, 354.

In 1886, that is, one year after it was originally started, the work was set up as the Division of Economic Ornithology and Mammalogy in the Department of Agriculture.⁵ What might be called a survey of wild life became the most important feature of its work, although it was ten years before its name was changed to "Division of the Biological Survey."⁶ The title was again changed in 1906 when the Bureau of the Biological Survey was set up as an independent unit in the Department of Agriculture.⁷

There had been protests from the first that the Biological Survey was spending too much of its time in the study of geographic distribution of the species and not giving enough attention to the practical questions relating to agriculture and horticulture. The same problem had faced Dr. Merriam and his associates in beginning their work that has usually faced the directors of any new governmental organization.⁸ Should they use the limited funds granted them to lay the basic foundations which might later produce practical results or should they jump ahead and by hit-and-miss methods get some sort of immediate results so as to convince the members of Congress that their work was of value?

Dr. Merriam chose to use the first appropriations made the Survey for what he considered basic scientific studies. Perhaps it was because the Union was composed largely of scientists and that Merriam himself was more interested in the scientific aspects of the work than in any other. Unfortunately, the chief point urged before the House and Senate appropriation committees had been the practical value

⁵ 24 Stat. L. 100.

⁶ 29 Stat. L. 99.

⁷ 33 Stat. L. 861.

⁸ See discussion of similar situation in *The Geological Survey*, Monograph No. 1, Institute for Government Research, p. 11.

of a study of bird life to agriculture. The original act of 1885⁹ had specified that the sum of \$5,000 was appropriated for the purpose of “. . . investigation of the food habits, distribution, and migrations of North American birds and mammals in relation to agriculture, horticulture, and forestry. . . .”

The exact wording of the appropriation act had changed from time to time but the idea remained fixed that the Survey was to carry on investigations in wild life that would be of practical value to agriculture. Finally, matters came to a head in 1907 when Dr. Merriam was challenged by the House Committee on Agriculture to show the practical value, if any, of the work of the Survey to the agricultural interests of the nation.¹⁰

His answer in the form of a comprehensive report which attempted to justify the Survey's work appeared several months later. Therein its economic features were stressed and it was argued that the study of geographic distribution was but a necessary ground work which must be laid before effective practical work could be done. Said the report:¹¹ “Without accurate and comprehensive knowledge of the various species, of the areas they inhabit, and of their relative abundance . . . satisfactory economic studies of birds and mammals would be impossible.”

However justified the emphasis on scientific studies may have been, Dr. Merriam read the handwriting on the wall and from that day onward was always careful to stress its practical value to agriculture. Indeed, as the years went by that phase of the Survey's work increased of its own volition to a great extent.

⁹ 23 Stat. L. 353.

¹⁰ 59th Cong., 2nd Sess., H. R. 8147, pp. 38, 39.

¹¹ 60th Cong., S. Doc. 132.

Survey Enters Control Work: The Survey from the first days of its existence had occasionally made studies bearing upon the relation of mammals to agriculture and grazing but not until the nineties did it come into active contact with the depredations of predatory animals. The increasing amount of damage which such animals caused the western cattle herds forced state legislatures to turn their attention to finding means of control. At first, various bounty systems were tried and the states as they came to frame their bounty laws turned for advice to the Biological Survey, which in a sense became a clearing house for information. But it was not long before the states came to realize that the bounty system was too small an effort to cope with such a serious situation.

Meanwhile, the Survey in 1905 at the request of the Forest Service had agreed to make a study of the wolf problem on the grazing areas within the national forests. The results of this investigation were published in 1907 by both services. During the next few years the Bureau conducted a number of such investigations. When the failure of the bounty system was recognized the pressure became increasingly strong for the Survey to enter the field in a more active way. Finally, in 1914 Congress appropriated a small sum to the Survey for experiments and demonstrations in control methods.¹²

About this same time the demands of the farmers for protection against various rodents which preyed upon their crops forced the Survey to turn its attention to rodent control measures. Starting in 1909¹³ as a small addition to the "food habits research" clause in the annual appropriation act for the specific purpose of making experiments in destroying noxious rodents, the appropriation has increased

¹² 38 Stat. L. 434.

¹³ 35 Stat. L. 1051.

in size until for the fiscal year 1934 the sum of \$575,780 was made available by the federal government for the predatory animal and rodent-control work of the Survey.¹⁴

Although the emphasis of the Survey's work was shifted from scientific to the practical economic in 1906-07, scientific studies have been continued since that date. Indeed, the studies in geographical distribution of wild life form the basis for most of the practical work of the Survey. For example, during recent years they have proved to be of great value in fixing the location of migratory bird refuge, for as a result of these studies the Survey knows where various species of wild life are to be found.

With the view to making enforcement of the state game laws easier and of preventing the importation of foreign species which might, like the English sparrow, prove undesirable, Congress in 1900 passed the Lacy Act¹⁵ that forbade the shipment in interstate commerce of game or game birds which had been taken illegally in a state or territory or which were shipped in violation of state non-export laws and the importation of foreign species except under permit of the Secretary of Agriculture. The enforcement of the act was delegated by the Secretary to the Bureau of the Biological Survey although of necessity, due to the small amount appropriated in the years immediately following the passage of the Lacy Act, the enforcement consisted chiefly of cooperation with the states.

Nevertheless this was the first important regulatory work which was assigned to the Survey, and it was destined to be followed by other acts of the same type. In 1918 the so-called Migratory Bird Treaty Act,¹⁶ and again in 1929 the Migratory Bird Conservation Act,¹⁷ together with the vari-

¹⁴ 47 Stat. L. 1454.

¹⁵ 31 Stat. L. 187 as amended in 1909, 35 Stat. L. 1137.

¹⁶ 40 Stat. L. 755.

¹⁷ 45 Stat. L. 1222.

ous acts setting aside specific areas as refuges, added further regulatory duties to the Survey's activities.

One phase of the Survey's present-day activity remains to be considered historically and that is the work in the preserving and the breeding of desirable species of wild life. The reclamation movement which swept the country at the opening of the century was indirectly responsible. A large number of the lakes and marshes where migratory birds nested were reclaimed during that period. Then there came a series of dry years in the West which dried up other areas used by wild fowl. The result was the overcrowding of the remaining areas which, in turn, bred disease that had a truly disastrous effect in reducing the numbers of game birds. Ironically, it was later discovered that much of the land reclaimed was of little value for either farming or grazing.

The Survey Establishes Game Refuges: Due largely to the efforts of the American Game Protective Association, a bill was introduced in Congress in 1921 that authorized the Survey to purchase and administer certain remaining areas of marsh lands that were used as breeding areas. The bill failed of passage but a similar proposal was included in the Migratory Bird Conservation Act,¹⁸ already referred to, which gave somewhat more extensive powers to the Survey than did the 1921 bill.

It set up an ex-officio commission known as the Migratory Bird Commission¹⁹ to approve the areas before purchase but the Secretary of Agriculture through the Survey was to do the actual work involved in the purchase and was to administer the land afterwards. Nor was the work limited to the acquisition of marsh lands but went a step fur-

¹⁸ Act of Feb. 18, 1929, 45 Stat. L. 1222.

¹⁹ Consisting of the Secretaries of Agriculture, Commerce, Interior, two members of the House, and two members of the Senate.

ther and authorized the purchase of any land which was or could be made a suitable breeding place for migratory birds. In the interval between the passage of the 1929 act and the proposed act of 1921, there were a number of bills enacted into law setting aside specific areas as refuges, such as the Upper Mississippi Wild Life and Fish Refuge Act of 1924.²⁰

Besides these measures to conserve the remaining bird life the Survey began here and there to undertake studies in the breeding and domestication of animals. Due to the urgent requests of the reindeer herders in Alaska,²¹ the Survey established an experimental laboratory in connection with the Territorial Agricultural College and School of Mines to study herd management of those animals.

The decreasing number of fur-bearing animals led to higher prices in the market, which in turn led to more extensive trapping. The total extinction of certain species was in sight with the resulting destruction of the fur trade. Experiments have been going on for some time in Canada and Alaska in the raising of fur-bearing animals in captivity with considerable success. Finally, in 1912 the Survey undertook research in the breeding of fur-bearing animals and the management of fur farms. At first the work was exclusively with foxes but in time it broadened out to include muskrat, martins, rabbits, and other types of fur animals.

Looking back over the development of the Survey's activities four phases of policy are evident. First, there was the emphasis upon economic ornithology for which

²⁰ Act of June 7, 1924, 43 Stat. L. 650. The work of purchase and control of these areas has also passed to the Commission since 1929.

²¹ Reindeer had been originally introduced into Alaska by the Bureau of Education in an effort to help the natives. In more recent years the industry has passed into the hands of the whites.

purpose the Survey was originally organized; second, in the period 1886-1906 emphasis upon scientific studies; third, the partial return to economic ornithology; and, finally, since 1920 the emphasis upon the protection and active promotion of desirable species of birds and mammals in addition to the control of the undesirable species. The purely scientific studies are still carried on and, in large measure, form the basis of the practical work but in proportion to what might be called the economic activities they have become progressively of less importance in the annual appropriation.

One cannot but be impressed with the fact that during most of its history, the Survey has not been particularly aggressive in undertaking wild life conservation measures. The initiative for new developments seems to have come mainly from outside groups. This state of affairs has resulted because of the lack of a clear definition of the Survey's functions. Fortunately, in recent years with the development of a consensus of opinion that the chief function of the Survey is to act as guardian of the wild-life resources of the nation, more progressive and forward-looking policies can be expected.

The Chiefs of the Biological Survey: Dr. Merriam was succeeded as chief of the Survey by Henry W. Henshaw in 1910. Henshaw was largely a self-trained biologist. As a young man he joined the Wheeler Survey in 1872 in the capacity of naturalist. During the next few years he was either engaged in the field with that Survey or in writing up the results of its explorations. In 1879 he became a member of the staff of the Bureau of Ethnology, on which he remained until 1893 largely in an administrative capacity. In the ten years following he lived in the Hawaiian Islands. Then returning to the United States he became administrative biologist in the Biological Survey and finally,

in 1910, chief. His appointment, coming shortly after the House investigation of the Survey's work, was motivated in part by the desire to have a "practical" biologist at the head of the Survey.

In 1916 Henshaw retired²² and was followed by Dr. Edward W. Nelson, long a member of the Survey's staff. Dr. Nelson had graduated from the Cook County Normal School in 1875 and shortly after went to Alaska where he engaged in various scientific explorations during 1877-81 including the cruise of the United States cutter *Corwin* in 1881. In 1890 he joined the Biological Survey and rose through the various ranks until he became assistant chief in 1914 and finally chief in 1916. After eleven years of service in that capacity he was retired in 1927 after reaching the age limit.²³

When Dr. Nelson retired the Secretary of Agriculture, Mr. Jardine, went outside the Survey ranks to pick the new chief. The explanation for this action seems to lie in the fact that Dr. Nelson and certain of his staff in sponsoring a bill that provided for the establishment of federal public shooting grounds incurred the wrath of the conservation group. The chief argument of Dr. William Hornaday, the leader of this group, was that the primary function of the Biological Survey was to protect wild life, not to provide more opportunities for killing it.²⁴

The dispute had become so heated that apparently Secretary Jardine decided to bring in a man not involved in it in any way. His choice was Paul G. Redington, an assistant

²² Mr. Henshaw spent the last years of his life in St. Elizabeth's Hospital, Washington, D. C., dying in 1929.

²³ See article by Macmahon, Arthur, "Bureau Chiefs in the National Administration," *American Political Science Review*, vol. 20, p. 559; also vol. 23, p. 394.

²⁴ Hornaday, William, *Thirty Years War for Wild Life*, p. 123.

chief in the Forest Service. Mr. Redington, a graduate of the Yale Forestry School, had had long years of experience in forestry work. It was believed that this experience would especially fit him to head the Survey because of the close connection between wild-life conservation and forestry.

After a comparatively brief term of six years, Mr. Redington was returned at his own request to the Forest Service. He was succeeded by Jay Darling whose famous cartoons have, in good measure, popularized the wild life conservation movement. Mr. Darling, who had long been prominent in wild-life work in Iowa, had more recently served as a member of the President's Committee on Wild Life Restoration. The conservationists have the feeling that here at last is a man who will not err on the side of lax enforcement of the game laws.

Administrative Organization of the Survey: The Bureau of the Biological Survey constitutes one of the fifteen bureaus that go to make up the Department of Agriculture. Organized under the Chief of the Bureau who is responsible to the Secretary of Agriculture, the Survey's activities are divided among a number of divisions and independent sections.

The staff functions are divided into two groups, the business operations which are placed together in the Division of Administration, and those activities having to do with public relations which are handled through the Division of Public Relations. The line functions, constituting those activities which the Bureau was organized to perform, are carried on by six divisions and one independent project, namely, the Divisions of Biological Investigations, Food Habits Research, Fur Resources, Game Management, Land Acquisition, Migratory Waterfowl, and the independent project on Disease Investigation.

Division of Biological Investigations: The work of the Survey might be said to be of three types, investigation, control, and promotion. Three of the line divisions are engaged primarily in the first of these, investigation. The Division of Biological Investigations is the oldest, dating back to the original establishment of the Survey in 1885. The Division was originally built around the idea of exploring the country biologically, that is, in making a biological survey. It will be recalled that between 1886-1906 this constituted the chief work of the Bureau, and even today, although occupying a relatively less important position in the Bureau's program, is still an undertaking of the first magnitude.

At the present time four types of research are being carried on by this Division: first, on bird migrations and waterfowl distribution; second, on the life habits of elk and large game animals; third, on the breeding and management of reindeer, caribou, and musk-ox in Alaska; and fourth, on the relation of wild life to forestry. Migratory bird studies are carried on by trapping migratory birds alive and marking them with metal bands. The bands, numbered consecutively, are provided by the Division although the actual work is done by private individuals under license from the Survey as well as by the field men of the Division. Persons taking the birds at a later date are requested to notify the Survey of the number found on the band and the locality where captured. A check upon the locality where the bird was first banded and the locality where later captured indicate direction and distance of migration.

In an effort to determine the approximate number of waterfowl in various parts of the United States upon which to base the statutory bag limit under the Migratory Bird Treaty Act,²⁵ a waterfowl distribution study was begun in

²⁵ 40 Stat. L. 755. The waterfowl distribution study is sometimes ironically referred to as the "duck census."

1927. The personnel of the Forest, Lighthouse, and Coast Guard services were enlisted in the work through their respective chiefs in Washington, as were numerous private individuals located in various parts of the United States.

The results were not entirely satisfactory because, as might be expected, the estimates of the amateur investigators varied greatly. Nevertheless in the course of two or three years, the Division was able to reach the conclusion that waterfowl as a whole were in a period of serious decline. As a result, the open season on certain species found most seriously affected was shortened to one month in 1931.²⁶

The distribution studies are still being carried on but the estimates are being made entirely by Survey men. Their reports showed that there was some improvement in the waterfowl situation in 1932 due to the short season of the previous year, consequently it was lengthened to two months. The last two years (1933-34) with drought conditions existing in wide areas in the Middle West have again played havoc with the waterfowl and at the present time the situation is a very serious one.²⁷

The Mammal Section is engaged chiefly in investigations regarding life habits of elk and other big game at the Jackson, Wyoming field station and in identifying and classifying specimens at the Museum of Natural History in Washington, D. C.

A report summarizing six years of research on elk was prepared and issued by the Survey in 1933. The importance that life histories have as a basic study cannot be overemphasized. It can be readily seen that the only way of determining whether a certain species of wild life is beneficial or harmful to mankind is through a study of its life history.

²⁶ *Report of the Chief, Biological Survey (1933)*, p. 1.

²⁷ *Report of the Chief, Biological Survey (1933)*, p. 2.

Research in the breeding and management of reindeer, caribou, and musk-oxen in Alaska is carried on through a field station at the Territorial Agricultural College and School of Mines and at various scattered field stations. The chief problem in this field is to increase the weight of the reindeer so as to make them more valuable commercially. Considerable success has been achieved in solving the problem through cross breeding of reindeer and caribou.

The McSweeney-McNary Act of 1928²⁸ authorized the Secretary of Agriculture to conduct an investigation to determine the best methods of managing the national forests. As it would be supposed, most of the work undertaken in accordance with the provisions of the Act is being carried on by the Forest Service itself, but the Biological Survey was asked to cooperate in the study of the relation of wild life to forestry. The major portion of that study is being carried on by the Division of Biological Investigations. To insure unity of effort between the Forest Service and the Survey, regional conferences have been held from time to time, a good example of which would be the conference held at the Intermountain Forest and Range Experimental Station, Ephraim, Utah in August 1931. At this conference the men of both services engaged in this study in the mountain states met and talked over their common problems.

The title of the Division, Biological Investigations, is the best summary of its work in general. Not only does it perform biological work for the other divisions of the Bureau but frequently its personnel is temporarily assigned to aid state conservation departments that are in need of such experts.²⁹ Quarterly reports are submitted by each major

²⁸ 45 Stat. L. 699.

²⁹ An example is found in the request of the Virginia Department of Conservation for aid in an investigation of deer and fur-bearing animals in the lowlands of the state made during the latter part of December 1931.

investigator telling in narrative form of the progress of the work entrusted to him.

Division of Food Habits: The Division of Food Habits Research is a straddle between biological investigation and control of certain species of birds found undesirable. The biological investigation side includes stomach analysis work at the special laboratory for that purpose in Denver,³⁰ the survey of proposed sites of refuges for migratory birds, and the study of the food habits of certain birds and mammals in relation to forestry under the McSweeney-McNary Act.³¹ Although this work is not a duplication of that carried on by the Division of Biological Investigations, it is in a sense a continuance of the activities of that Division.

Control work follows when the study of the food habits of birds show them to be destructive to agriculture. During 1932, for example, such studies were made in California of the damage to rice by blackbirds and to fruits and vegetables by linnets and larks. Control methods were experimented with and those finally applied were successful in materially reducing the damage. The question naturally arises whether this control work in regard to harmful species of birds is not much the same as that carried on by the Division of Game Management. The answer seems to be that it is, although it is possible that more efficient results are obtained by placing birds apart under this Division than by combining them with predatory animals and rodents.

Division of Fur Resources: The Division of Fur Resources like the two already discussed is engaged in bio-

³⁰ The stomach examination of numerous birds and mammals proved false many common tales regarding their food habits. For example, stomach analysis of foxes taken in Virginia did not bear out the hunters' contention that they destroy many quail but indicated instead a diet chiefly of rabbit. *Report of the Chief, Biological Survey (1932)*, p. 7.

³¹ 45 Stat. L. 699.

logical investigation, but with this important distinction, it is concerned not with wild animals at large but with the breeding and management of animals in captivity. Its personnel is composed not of biologists but of men trained in animal husbandry. Up to the present time its work has been confined to experiments with fur-bearing animals although it presents a nucleus around which could be built a division devoted to the study of all species of animals that might profitably be raised in captivity.

Roughly, the Division's work may be said to be the study of the nutrition, embryology, and genetics of fur-bearing animals. As yet, its field work has been limited to two cooperative stations, one at Fontana, California, for the study of rabbits and one at Church Creek, Maryland, for muskrats, besides the United States Fur Animals Experimental Station at Saratoga Springs, New York for a variety of other species.

The independent project for the study of animal diseases was formerly part of this Division and still draws its budget allowance from the fur project although it is now responsible directly to the Chief of the Bureau. The work is financed on a cooperative basis by the University of Minnesota with the aid of certain other universities.

Division of Game Management: This Division, established as a result of the reorganization of July 2, 1934, combined in one unit the work formerly carried on by the Division of Predatory Animal and Rodent Control and the Division of Game and Bird Conservation. The activities of the Division are of three types: control of predatory animals, management of refuges, and enforcement of the game laws. For purposes of administration the country has been divided into eight regions and at the head of each has been placed a regional director responsible for the work in his respective area. In effect, this reorganization decentralized

the field organization and centralized the organization at headquarters at Washington.

Control of Predatory Animals and Rodents: It is a theory, advanced by some naturalists, that nature untouched by man will itself work out a balance between the various species of wild life, using one species to check overproduction in another. Whether in the long run this is true or not, and recent experiences of the Division would seem to cast much doubt upon its validity, man from the economic point of view cannot always afford to wait for such a balance to adjust itself.

The Division of Game Management operating upon a realistic basis has set out to eradicate predatory animals and rodents in those areas where it is economically profitable to do so. It is not attempting total eradication of whole species, but only to eradicate them in such areas where they are doing sufficient damage to make the necessary expenditures for eradication profitable.

Whether the Survey should have undertaken this type of work at all has long been a moot question among conservationists. It is a question difficult to answer, and only time can determine the wisdom of the policy.

It will be recalled³² that the state legislatures at first tried to subsidize the killing of predatory animals through a bounty system. It failed to be effective because of the opportunities for fraud inherent in the system. In some cases breeding areas were deliberately maintained by professional hunters; in other cases skins taken in one state were shipped to another paying a higher bounty. Fundamentally, the system was wrong because the chief aim of the hunters was not to eradicate the evil but to continue it so as to have a source of financial return.

³² See *supra*.

The Survey uses picked men as salaried hunters working under the supervision of a state leader who, in turn, is responsible to one of the eight regional directors, each one having direction of the work in several states. When first established an attempt was made to keep predatory animal separate from rodent control work with separate leaders in each locality. In more recent years the policy has been adopted of combining the work in a state under a single individual with the title of dual leader. The new system has not been put into effect throughout the organization but it is in operation today in the majority of the states.

It is the duty of the regional directors to keep in touch with the leaders in each state, aiding them with advice and in general supervising their work to see that instructions from headquarters are properly obeyed. They also act as contact agents between the Survey and those agencies which are cooperating with it in providing funds for control work.

The hunters and rodent-control leaders, the state leaders, and the regional directors themselves, are required to submit a brief weekly itinerary report showing their day-to-day activities. Quarterly and annual reports in greater detail are made by the regional directors and state leaders, not upon form blanks but in running narrative style. These reports,³³ together with the visits of the Division Chief, constitute the major check upon the field activities. The policies of the Division have been formulated by a series of general conferences with the field staff, the last of which was held at Denver in April 1931 and by a conference of the regional directors, the last of which was held in Washington in August 1934.

Two separate projects not under the general field organization are the Control Methods Research Laboratory located at the Custom House, Denver, and the Bait Processing Plant

³³ Special reports on a number of subjects required in addition.

at Pocatello, Idaho. The laboratory seeks to develop more efficient methods of control chiefly through the discovery of new types of poisons while the Idaho plant makes the poison bait which is used by the Survey men in the field. In some instances as a matter of courtesy, bait is processed without charge for state conservation departments which furnish the necessary materials.

There are four field investigators attached to the laboratory staff who try out new poisons under the actual conditions obtained in the field, and who study the natural habits of predatory animals and rodents so as to determine the type of poison bait that will be most effective.

A great part of the work is financed by cooperative funds obtained partly from the federal government and partly from other sources. During the fiscal year 1932 the federal funds expended by the Division for predatory animal and rodent control totalled \$596,606 while at the same time 36 cooperating states spent \$448,251, and in addition counties, livestock associations, and individuals contributed practically half a million dollars.³⁴ Thus the cooperative agencies during that year nearly doubled the contribution of the federal government for control work, although since that time their contributions have fallen off considerably.

The Survey when undertaking work to be financed cooperatively prefers to enter into a formal written agreement in which the rights and duties of each party are clearly stated. The control operations call for a technique of a high order, and therefore in each instance the Survey has insisted that the actual direction of the work remain in the hands of trained Survey personnel.

The use of such agreements is not limited to agencies outside of the federal government but is also used between departments. Thus the Survey has written agreements re-

³⁴ *Report of the Chief (1932), op. cit., p. 10.*

garding predatory animal and rodent control work with the Forest Service, National Parks Service, the Bureau of Indian Affairs, and the Office of the General Extension Service.

Enforcement of the Federal Game Laws: The regulatory work of the Division of Game Management is founded upon the Lacey Act of 1900,³⁵ the Migratory Bird Treaty Act of 1918,³⁶ and various laws affecting wild-life reservations. To enforce these laws the Survey has a staff of 25 United States game protectors scattered over the country in as many districts aided by temporary assistants on a per-diem basis known as United States deputy game wardens.

The President upon recommendation of the Secretary of Agriculture is authorized, by the terms of the Migratory Bird Treaty Act, to issue regulations which have the force of law, fixing the length of the open season and the bag limit for migratory game birds. These regulations are drafted annually for the Secretary by the Biological Survey, advised by a representative laymen's committee chosen by the survey from various parts of the country.

In a certain sense the intent and purpose of the federal game laws is to secure a degree of uniformity among the states and to aid them by making violations of state game laws more difficult. With such a small number of wardens each covering a large territory, efficient enforcement could only be obtained through a policy of close cooperation with the state conservation departments. To such cooperation is due in large measures the success the Survey has had to date.

One form of cooperation is the deputizing of wardens of the respective services, federal and state, on the opposite

³⁵ 31 Stat. L. 187 as amended by Act of March 1909, 35 Stat. L. 1137.

³⁶ 40 Stat. L. 755.

force. Thus federal protectors are deputized as state wardens and certain state wardens are designated federal deputies.³⁷ In one year the fines collected by the states for violation of state game laws reported by the United States protectors acting as state deputies amounted to \$13,400.³⁸ Another means is by informal conference and exchange of information.

When an arrest is made for violation of a federal game law the offender is taken before the nearest United States commissioner, bail fixed, and the prisoner released. Affidavits are prepared by the officer making the arrest and by witnesses, if any, and sent to the Division headquarters in Washington, where they are turned over to the solicitor of the Department of Agriculture. He evaluates the evidence and if he believes the government has a case, prepares a suggested "information" for the use of the local United States district attorney which is sent him via the Department of Justice.³⁹ The case is then taken into the federal district court for trial.

A very important work of the protectors is to examine the books and records of fur houses located within their district. The information thus obtained is of the very greatest assistance to both state and federal enforcement of the fur laws.

The issuing of permits for bird-banding, for the taking of certain species, and for their possession after the end of the closed season is also handled by a section of this Division. This applies to migratory birds over which the federal government was given jurisdiction by the Treaty Act re-

³⁷ This form of cooperation would be used to an even greater extent were it not for the fact that some state constitutions forbid state employees to hold office under the federal government while employed by the state.

³⁸ *Report of the Chief (1932)*, *op. cit.*, p. 28.

³⁹ The whole procedure is discussed in more detail in Chapter VIII, *Problems of Game Law Enforcement*, p. 207.

ferred to above. In addition, this section has jurisdiction over the granting of permits to import birds and mammals from abroad. This phase of its work is much heavier than one would think. For example, in the single year 1933, over 300,000 foreign birds, chiefly quail, partridge, and cage birds, were entered while in 1930 the high-water mark of importations, over 800,000 birds were brought into the United States.⁴⁰

Administration of Game Refuges: There are nearly a hundred wild-life reservations administered by the Division of Game Management, including six primarily for big game. Weekly reports are required of the wardens in charge of each refuge showing his activities from day to day, and the customary quarterly and annual reports in narrative form. Recently each refuge superintendent was instructed to submit a five-year development plan based upon (1) physical features of the refuge, soil, topography, cover types, climate; (2) destructive agencies, fires, and grazing; (3) industries and their influence; and (4) a proposed plan of development as a breeding area, recreational site and as a source of economic return.

Division of Land Acquisition: The Migratory Bird Conservation Act of 1929⁴¹ set forth a ten-year plan for the acquisition of a system of federal bird refuges on a large scale to be carried out under the general direction of the Secretary of Agriculture, but each parcel of land acquired was to be approved by a special commission composed of the Secretaries of Agriculture, Commerce, and the Interior, two members of the Senate, appointed by the Vice-President, and two members of the House, selected by the Speaker.⁴²

⁴⁰ *Report of the Chief, Biological Survey* (1933), p. 30.

⁴¹ 45 Stat. L. 1222.

⁴² Due to the depression and the resulting economy program the ten-year plan has not operated according to schedule. The Act originally

The Division of Land Acquisition in the Biological Survey was set up to do the actual work of selecting suitable areas and making the necessary arrangements for acquiring them.

Biologists speak of the four flight areas of migratory North American birds. They may roughly be defined as the Atlantic Coast, the Mississippi Valley, the Great Plains, and the Pacific Ocean areas, running from Canada through the United States to the south, in some cases as far as the northern part of South America. It is the aim of the Commission to provide a series of refuges in each flight area, of such size that they can be conveniently and efficiently administered.⁴³

When the Division was established in 1929 it sought the advice of conservation associations asking that they make suggestions with regard to suitable refuges. With the information thus obtained together with that already possessed by the Survey regarding known points of bird concentration, the Division was able to begin work. Since that date the Food Habits Research Division has made examinations and suggestions regarding suitable land and occasionally private individuals have written offering to sell their property for refuge purposes.

In case the Division thinks a certain parcel of land worth considering seriously, after a favorable report on its biological features made by the Food Habits Research Division, a land valuation crew is sent out from the nearest field headquarters, which are located at Kansas City, Ogden, and Washington, D. C., to make an examination of the property. A map is first made showing the type of land, that is, agricultural, grazing, hay, timber, brush, or marsh, and under various subheadings, the quality of each type.

appropriated \$75,000 for the fiscal year 1929, \$200,000 for 1930, \$600,000 for 1931, \$1,000,000 for 1932, and the same sum for the next six years.

⁴³ This generally means blocks of from twenty to fifty thousand acres.

By capitalizing the value of the crops, agricultural, timber, or fur, grown on each acre, the valuation crew is able to estimate the value of the land in question, taking into consideration known values of adjoining land and possible developments. In the meanwhile land ownership maps are prepared from county tax records and checked against the rough field reports. Upon the basis of the information thus obtained offers are made to the owners and options acquired. The whole report, if satisfactory, is then submitted to the Migratory Bird Conservation Commission by the Chief of the Division together with his recommendation for favorable action.

Should the Commission act favorably, as it usually does on such recommendation, the final check begins. Local abstractors hired on the spot or men sent out from Washington, should that be less expensive, make abstracts of title, which are carefully examined by the Solicitor of the Department of Agriculture and then forwarded to the Attorney General's office for final approval. At the same time a boundary survey is being made by a survey crew from the Engineering Section. This is the most expensive operation of all, so it is put off until the Division is sure it wishes to acquire the property. The data obtained is put into a survey map which now accurately shows ownership and can be checked against previous maps and the options already held. Some of the options may prove incorrect, necessitating change. This is especially likely to be true in the eastern states where the land grant system made for very peculiar shapes in the parcels of land.

When this has been completed and the Solicitor is satisfied that valid title can be obtained, the actual purchase takes place. The whole process, although it seems relatively simple, may take a great deal of time. Usually there is a great deal of dickering between the landowner and the Survey regarding the price, but the Surveys willing to bide

its time, has been able to obtain the property it desired at a fair price.⁴⁴

As it has been noted,⁴⁵ Congress in the years prior to the passage of the act of 1929 had passed acts designating certain definite areas of land for purchase, to be set aside as refuges. Obviously, this is not the most ideal system of land purchase inasmuch as it creates a seller's market, raising land values in the area designated. The Survey, it is true, was given the right of condemnation but such legal proceedings are very expensive and greatly increase the overhead costs. In addition, the land was designated without previous examination by the Survey and in one case at least proved to be unsuited for refuge purposes without expensive improvements. The system adopted by the act of 1929 giving the Survey considerable amount of discretion is by far the better method.

The recent movement to set aside submarginal agricultural land for game refuge purposes gained a considerable popular following among the conservationists. Unfortunately, most of the area which is submarginal for agricultural purposes is not suited for migratory bird refuges except with expensive improvements. However, for upland game considerable areas of such land can be used. At the present time (1934) the Survey is actively engaged in cooperating with the Federal Surplus Relief Corporation which has charge of the \$25,000,000 allotted for this purpose by the Public Works Administration⁴⁶ and in selecting land which can be used for refuge purposes.

Migratory Waterfowl Division: A new division was established by the memorandum of July 2, 1934 responsible

⁴⁴ The average cost of the land purchased has been \$4.38 per acre. *Report of the Chief* (1932), *op. cit.*, p. 18.

⁴⁵ See p. 88.

⁴⁶ *New York Times*, Jan. 4, 1934, 1: 4.

for the formulation of a national migratory waterfowl program. The chief duties of the new division are the planning of the development of the refuges already owned and those to be acquired in the future. The prospects of an annual fund from the sale of migratory waterfowl hunting stamps⁴⁷ for the purchase and maintenance of refuges seems to point to the need of a continuing program. In a large measure this division will act as coordinating agency between the Division of Land Acquisition and the Division of Food Habits Research in selecting refuge sites.

Staff Functions of the Bureau: The business activities of the Bureau were reorganized by a general memorandum of the Chief effective March 1, 1932. What had previously been the semi-independent Offices of Accounts, Property, and Mail and Files were set up as sections under the new Division of Administration headed by an administrative assistant who acts as chief of the Division. The memorandum further stated that two other sections were contemplated for the future to deal with the budget and with personnel. The latter functions for the present are being handled by clerks directly responsible to the Division of Chief.

Preparation of the Budget: As has been noted, the preparation of the budget for the Bureau as a whole is handled by the Budget Clerk in this division. The fiscal year for the federal government begins July 1 of the year preceding.

About April 1, the work commences with the submitting of estimates by the chiefs of each division based upon the approved plans of their field staff. The estimates are not upon printed forms but in simple narrative statement, according to projects,⁴⁸ explaining as they go the

⁴⁷ 48 Stat. L. 451.

⁴⁸ Budget is set up not by the appropriations for divisions of the Bureau but by sub-appropriations which are divided into projects, carried out by one or more divisions.

reason for the increase or decrease in each item. By May 1 these estimates have been compiled by the Budget Clerk and submitted to the Chief of the Bureau, who in a series of conferences with the division chiefs considers each request in turn.

By May 20 the revised estimates are returned to the Clerk who puts them on a printed form of the Department of Agriculture and sends them to the Budget Officer for the Department. Conferences then will follow between the Budget Officer and the Chief of the Bureau, and sometimes in case of serious dispute between them with the Secretary himself.⁴⁹ Finally, the estimates are agreed upon and the Department during the latter part of June advises the Bureau as to the amounts it can request.

The Budget Clerk then enters the estimates on printed forms prepared by the Bureau of the Budget which are the same for all branches of the federal government. A great mass of supporting data is required by the Bureau of the Budget, explaining each increase or decrease in requests, accompanied by a narrative statement explaining the reason for each sub-appropriation and for each project under each sub-appropriation.

The Budget Bureau then holds hearings during September and October which are attended by the Bureau Chief, his immediate assistants, the Department Budget Officer, and often by members of the staff divisions of the Secretary's office, especially by the Director of Scientific Work whose duty it is to coordinate all scientific work carried on by the Department. Sometime during the latter part of October the Bureau of the Budget notifies the Biological Survey of the increases and decreases made in the estimates and then the Survey must bring its figures into line. This

⁴⁹ Note that the Department Budget Officer has real discretionary power while the Bureau Budget Clerk is only compiling agent.

correction is completed by November 15 so the Budget Bureau will have time to compile the final estimates and have them ready when Congress meets the first week in December.

After the appropriation bill is passed, which ordinarily happens in March, the Budget Clerk notifies each of the Division Chiefs of the amount appropriated for his division. He then prepares a statement showing just how he expects to spend the money, and the amount to be allotted to each man.

When this apportionment has been approved by the Chief of the Bureau, the next duty of the division is to determine the amount to be spent each quarter. Expenditures must be kept within the quarterly allotment and an allotment for a sub-appropriation cannot be exceeded except with the consent of the Budget Bureau. However, transfers between projects or spending agencies making up the sub-appropriation are matters for bureau determination. In addition a reserve is usually required by the Budget Bureau to be maintained for each project and which cannot be spent except with authorization of the Budget Director.

Personnel Administration: The activities of the Survey require personnel with various types of training. The Division of Biological Investigation and Food Habits Research requires a personnel trained in biology. The Division of Fur Resources, operating in somewhat of a new field, has taken men with training in animal husbandry, while Land Acquisition is staffed by civil engineers. The Division of Game Management has recruited a personnel having a general educational background and given it the special training required for the work after entrance to the service. The staff division of Administration is recruited principally from the ranks of men and women having clerical training.

Like the budget, personnel work for the Survey is handled at present by a clerk responsible directly to the head of the Division of Administration. When an officer of the Survey wishes to fill a vacancy or to promote one of his subordinates he submits a form memorandum stating the proposed action, salary, grade, and title to the Personnel Clerk. When approved by both the Division and Bureau Chiefs in the Survey it is sent via the Personnel Clerk to the office of the Secretary of Agriculture.

In the latter office, personnel, among other matters, is handled by the staff Division of Personnel and Business Administration which is made up of five sections.⁵⁰ In this case the personnel request is first sent to the section on Organization and Classification which examines it to see whether the proposed salary and title are in line with that paid for similar positions in the Department as a whole. Under the present emergency economy order this section has the additional duty of preparing papers for the President's signature without which no appointment can be made. This rule will, most probably, be only of temporary nature.

The request is then sent to the Section of Appointments in the same division which acts as contact agent with the Civil Service Commission in obtaining certification of likely candidates. The certifications are sent back to the Survey and down to the appointing officer who originally made the request for an additional employee, who examines them and makes his choice.

There is no efficiency rating system for the men in the field but clerks and stenographers in the Washington office are rated on a percentage basis according to a form prepared some years ago by the Bureau of Efficiency. The system has not proved very satisfactory up to the present.

⁵⁰ These sections are sometimes referred to as divisions, thus leading one to become confused as to their true status.

Pre-auditing of Accounts: The Auditing Section of the Division of Administration keeps the books for the Bureau and pre-audits all accounts before payment.⁵¹ The audit is based on (a) the appropriation acts, (b) the regulations of the United States Department of Agriculture, (c) the standardized government travel regulations, (d) the bureau memorandums, and (e) the decisions of the Comptroller-General of the United States. In addition, copies of the annual letters of authorization,⁵² contracts, and leases are kept on file and checked again before a voucher purporting to make a payment under them is allowed. Copies of such leases and contracts are filed with the General Accounting Office under the identical number as in the Auditing Section and when the voucher is given the legislative audit by that office it is again checked.

The vouchers coming in from the field men for purchases are usually supported by a bill from the company from which the purchase has been made. If the bill is passed as an authorized expense, it is sent to the Disbursing Clerk of the Department who mails back a check immediately. If the voucher is for travel expenses, the check constitutes a reimbursement to the spending officer or employee. In case the Auditing Section finds errors it may either refuse payment altogether or require an explanation regarding the expenditure, suspending payment until received.

Another duty of the Auditing Section is to prepare the Bureau's payroll. Employees in the field send in a written statement each month of the number of days they have been on duty, but as this must be mailed around the 18th of the month so as to reach Washington before the 30th, each employee is required to wire the Bureau on the

⁵¹ Sometimes called the Administrative Audit.

⁵² Issued annually to each person in the Survey authorized to spend money, setting forth duties and the purposes for which he may make expenditures.

last day of the month confirming his previous letter. The early notice is a great saving of time inasmuch as it permits the auditing staff to prepare a tentative payroll which, when subject to slight changes, will be correct.

Equally important is the contact work of the Auditing Section between the line divisions and the General Accounting Office. Many times in passing upon vouchers, especially for travel expenses, the Auditing Section will add explanatory memorandum made possible by its knowledge of the conditions under which the Bureau employees work, and thus enable the vouchers to pass the General Accounting Office when otherwise they would be delayed for a considerable length of time.

Administration of Property Files: The Property Section of the Division keeps a record of all personal property owned by the Bureau. A cross-filing system is used, one set of files alphabetically lists and describes the articles, having separate sections for automobiles and motor boats because of their number and the space required for a complete description. The other file is arranged according to the name of the person in whose possession the property is held and it is therefore possible to turn to any employee's name and tell at a glance the amount and the type of property held by him.

Information for the files is obtained from the vouchers for all new material purchased. In the case of boats and automobiles a complete history is kept giving date of purchase, amount paid, repairs made at subsequent dates, and finally the disposition made if no longer in service. There are some variations when the property has been transferred to the Bureau from another bureau in the Department or from another department, but in each case the record showing that the property has been acquired passes through this section.

These records are checked and kept up to date by the annual inventory which must show all non-expendable supplies. When an article is lost, stolen, or worn out, the fact is certified to the section on a prescribed form giving full details. Articles which are no longer of any use may be destroyed after being passed upon by a board of three officials named either from headquarters staff or from the field force. Articles transferred to another bureau or department are receipted for when received and thus removed from the property files.

Methods of Purchasing Supplies: Within the last few years a new method of purchasing has been put into effect in the Bureau. Prior to July 1, 1932 the Property Section handled all headquarters purchasing including certain supplies needed in quantity for the field service. Since that date the Bureau has entered the Department of Agriculture purchasing system and now most, although not all, supplies formerly bought through the Property Section are issued through the Central Supply Section of the Department.

There are still some articles purchased directly by the Bureau. In which case the Property Section draws up the specifications, calls for bids, and does the actual purchasing. The tendency is to use the Central Supply Section as much as possible and negotiations are now under way to transfer the purchase of as many articles as possible to that section.

For the men in the field requiring supplies not obtainable from the Central Supply Section, the Regional Supply Depots of the Forest Service are used for such articles as are stocked by them. For the remaining supplies of special nature that cannot be obtained from any of these supply stations, or which it can be shown would be to the advantage of the government to purchase locally, the field agent is authorized to purchase direct. These latter include gas, oil, and repairs on automobiles owned by the Survey.

Division of Public Relations: A new division was established in the reorganization of July 2, 1934. Its duties, briefly stated, are to continue and coordinate the work formerly rendered by the Editorial Office and the Office of Exhibits. The new division is responsible for the editing of all manuscripts for official and outside publication, written either by or for members of the Bureau, for all press and radio releases, and for the creation and distribution of exhibits, photographs, and bulletins.

The Division is especially charged with the duty of preparing a program of publication which will keep the public acquainted with the accumulated facts and findings of the various scientific divisions of the Bureau. It is planned to draft a schedule of publications based on the needs of the public and to assign to their preparation those members of the Bureau most fitted to cover the subject.

Maintaining a Balance of Interests: The most difficult problem facing the Biological Survey today is to maintain a balance between the various pressure groups interested in wild life. On one side there are the agricultural and grazing interests who demand that the Survey undertake control measures against certain species of wild life which they contend prey upon their crops and herds. On the other side are the various naturalist groups who contend that the sole duty of the Survey is protecting wild life, not destroying it, and who demand that the Survey stop control measures at once.

In between is the sportsman's group which is chiefly interested in "more game birds." It demands that the Survey undertake control measures against all other forms of wild life which feed upon game birds. But even the sportsmen are divided as to the best methods of getting more game birds. One section of the group argues that game birds are fast disappearing and that, therefore, the hunting season should be shortened; the other section, repre-

senting the arms and ammunition makers, charges such a statement of the situation is pure poppycock and demands that hunting restrictions be relaxed. Then, there is the pressure group representing the commercial fur interests who, although divided sometimes as to proper length of trapping seasons, are united in demanding that the Survey aid them in research regarding fur animals.

Should the writer's definition of conservation⁵³ be accepted, there is nothing inherently wrong in undertaking control measures against some forms of wild life provided it can be proved that the human activities with which they conflict are far more valuable to society. In the past whenever it could be shown that some species of wild life were interfering with man's activities, it seems to have been assumed that control measures were justified. So long as the Biological Survey remains in the Department of Agriculture, such assumption will continue to be the basis of its policies.

It cannot escape the attention of an impartial observer that the Survey as a conservation agency should be more actively engaged in research and experimentation relative to the raising of animals in captivity. True, some work is being carried on in this field but it is far too limited in proportion to the total activity of the Survey. The present commercial value of fur animals and the future possibilities of the industry demand that greater attention be given to this field.

Is it to be wondered that in all this welter of conflicting views the Survey sometimes loses sight of its chief objective, conservation of wild life as a national resource. Conservation implies a balance between present use and future use; it implies an increase in quantity unless such increase can be shown contrary to social needs. The greatest problem before the Survey today is the adoption of such policies as will achieve this balance.

⁵³ See page 12.

CHAPTER VI

THE ORGANIZATION AND FUNCTIONS OF THE BUREAU OF FISHERIES

THE primary function of the Bureau of Fisheries is the conservation of aquatic life in all its forms. This chapter proposes to consider how well the bureau has carried out its primary function by a study of its history, its activities, its administrative organization, and the problems of policy that it has met in the past and those that it faces today.

*History of the Bureau of Fisheries:*¹ The United States negotiated a number of treaties² regarding fisheries in the first seventy-five years of its existence, but these treaties were not primarily for the purpose of conservation but were rather attempts to protect American rights in a highly competitive industry. The establishment of the Fish Commission in 1871 marks the first actual move toward conservation. In that year, largely due to the efforts of the American Fish Cultural Society and of Spencer F. Baird, then Assistant Secretary of the Smithsonian Institution, Congress by joint resolution authorized the President to appoint, by and with the advice and consent of the Senate, from among

¹ The author acknowledges the aid obtained on this historical section from an unfinished monograph on the Bureau of Fisheries in the possession of the Institute for Government Research and to which he had access through the courtesy of the Editor, Dr. Fred Powell of the Brookings Institution.

² Treaty of Paris (1783), Malloy, *Treaties*, p. 294; Treaty of London (1818), *ibid.*, p. 312; North Pacific Fishing Treaty with Russia, *ibid.*, p. 1513.

the civil employees of the government, a Commissioner of Fish and Fisheries to serve without additional compensation.³

That the fisheries resources of the nation were inexhaustible, no one in this country doubted until the middle of the last century. However, the demand for food fish products grew with the increase of population while the practice of ice-packing made possible the widening of the market. This led to the speeding-up of the industry without thought of future supply. By the late sixties the fact of the decrease of fishery resources was established beyond a doubt.

The creation of the office of Commissioner of Fish and Fisheries was an outstanding event in the history of the conservation movement signifying as it did the changed national policy toward wild-life resources. The old theory of "inexhaustibility" was being questioned and from this first step was to come the whole great movement for conservation of fishery resources.

Spencer Baird had been following the development of the fishing industry with interest and studying conditions along the New England coasts where the greatest depletion had taken place. It was from the results of his study and the interest of Henry Dawes, a member of Congress from Massachusetts, that the joint resolution authorizing the establishment of the Fish Commission was passed. In a speech before the House in 1871, Representative Dawes quoted at length from a letter of Mr. Baird which read as follows:⁴

During my visit last summer to Vineyard Sound and other maritime portions of New England I was much impressed by the great diminution in the numbers of fish which furnish the

³ 16 Stat. L. 594.

⁴ *Congressional Globe*, 41st Cong., 3rd Sess., pp. 584-85.

summer food supply of the coast, as compared with their abundance during my previous visit in 1863, and I found the same impression to be almost universal on the part of those with whom I conversed on the subject. The belief is everywhere loudly expressed that unless some remedy be applied, whatever that may be, the time is not far distant when we shall lose almost entirely this source of subsistence and support . . .

* * * * *

Before intelligent legislation can be initiated, however, and measures taken that will not unduly oppress or interfere with interests already established, it is necessary that a careful scientific research be entered upon, for the purpose of determining what should really be done; since any action presupposes a knowledge of the history and habits of the fish of our coast that, I am sorry to say, we do not at present possess.

It was to obtain that information that the office of Commissioner of Fish and Fisheries was established and his duties as defined in the resolution were,⁵

. . . to prosecute investigations and inquire on the subject, with the view of ascertaining whether any and what diminution in the number of the food fishes of the coast and the lakes of the United States has taken place; and, if so to what causes the same is due, and also whether any and what protective, prohibitory, or precautionary measures should be adopted in the premises; and to report the same to Congress.

The first Commissioner was Spencer Baird. A more logical appointment could not have been made. Born in Carlisle, Pa. in 1823 he had from his early youth been intensely interested in the study of all forms of wild life,⁶ an interest that lasted all his life.

⁵ *Ibid.*, p. 683.

⁶ Merriam, C. Hart, "Baird the Naturalist," *Scientific Monthly*, June 1924, vol. v, no. 28, p. 588 contains an excellent account of Baird's life.

In 1841 he went to New York City to study medicine but soon found it not to his liking so he returned to Carlisle as Professor of Natural History in Dickinson College. While in New York, however, he had made contacts with a number of famous naturalists, among others, Audubon, Peale, DeKay, Giraud, Bell, and James D. Dana. It was at Dana's suggestion that in 1847 he applied to Joseph Henry, Secretary of the Smithsonian Institution, for the position of curator. Due to the Institution's lack of funds it was not until July 1850 that he received the appointment as assistant secretary and began his long and distinguished career at the Smithsonian.

The time was most opportune for an expansion of the Smithsonian, as the government was just beginning its famous series of Pacific railroad surveys. Not only were these several expeditions equipped by Baird with collecting outfits but also one or more of the men, usually picked by himself, was instructed in the work. Through his tact, courtesy, and warm-hearted interest he was able to enlist a great host of persons in all branches of the government service in the work of gathering specimens for the Smithsonian.

Nor did his work stop there. He always stood ready to encourage the faltering steps of young naturalists. A number of men whom he trained and advised later carried on his work in the government service. The best known perhaps being Dr. C. Hart Merriam and Henry W. Henshaw, who successively became chief of the Biological Survey, and G. Brown Goode, who followed Baird as Director of the Smithsonian and as Commissioner of Fish and Fisheries.

This was the Baird who was chiefly responsible for the setting up of the United States Fish Commission and who acted as sponsor for its activities until his death in 1887.

During that period he received no salary for his services as Commissioner although by act of Congress shortly after his death his wife was granted a pension of twenty-five thousand dollars in lump sum, in partial compensation for his services.⁷

G. Brown Goode who followed Baird as Commissioner was recognized as a naturalist of outstanding ability. He had studied at Harvard under Louis Agassiz, then taught for a short time at Wesleyan, and finally joined Baird at the Smithsonian in 1877. After less than a year's time he voluntarily relinquished the office of commissioner to devote his full attention to the Smithsonian. He became assistant secretary of the Smithsonian in 1887 and later director, a post which he occupied until his death in 1896.⁸

During the tenure of Baird and Goode in office a great deal of scientific work was being carried on by the Fish Commission, chiefly to determine whether food fishes were decreasing in numbers and if so to what causes such decreases might be attributed. To aid in this work Congress in 1881 made appropriations for a properly equipped sea-going vessel at a total cost of over \$160,000.⁹

In 1873 an appropriation of \$15,000 was made for the work of cultivation and distribution of food fishes in the waters to which they were best adapted.¹⁰ The proposal for artificial propagation first had been made by Dr. Edmunds of the Vermont Fish Commission at a meeting of the American Fish Cultural Association held at Albany in February 1872. Later when the bill was before Congress the argument was advanced that artificial propagation of fish was

⁷ 25 Stat. L. 522.

⁸ See article by Jordan, David Starr, *Dictionary of American Biography*, vol. vii, p. 381.

⁹ 21 Stat. L. 440.

¹⁰ 18 Stat. L. 137.

essentially a national matter and that the federal government alone could undertake and manage it efficiently.

After this first appropriation for fish cultural work, Congress in the years that followed increased the amount spent for this purpose very rapidly, in 1876 to \$30,000,¹¹ in 1882 to \$145,000,¹² and by 1887 at the close of Baird's term of office to \$161,000.¹³ During this same period appropriations for scientific work had expanded very slowly and by 1887 totaled only \$20,000. In 1882 an appropriation was made for the construction and maintenance of a railroad fish-distribution car.¹⁴ The following year another car was provided for in the appropriation act.¹⁵

The act of that year also made provision for the erection of a fish-culture station at Woods Hole¹⁶ which later became famous as a headquarters for aquatic research. Fish cultural stations were also established in various parts of the country during the period 1883-87 in large measure in answer to local demands.¹⁷

A new type of work was undertaken in 1880. The Commissioner of Fish and Fisheries was charged with the task of collecting fishery statistics on the Great Lakes and the seacoast,¹⁸ especially statistics of the fish mentioned in the treaty with Great Britain in 1871 which included¹⁹ virtually all species except shell fish.

¹¹ 19 Stat. L. 117.

¹² 22 Stat. L. 332.

¹³ 25 Stat. L. 521.

¹⁴ 22 Stat. L. 332.

¹⁵ 22 Stat. L. 628.

¹⁶ Note spelling in act *Woods Holl*, although in later acts always *Woods Hole*.

¹⁷ Smith, Hugh, *The United States Bureau of Fisheries*, from Bulletin of the Bureau, vol. 28 (1909), p. 1382. The acts of those year curiously enough make specific appropriations for the maintenance of the carp ponds in Washington, D. C.

¹⁸ 21 Stat. L. 150.

¹⁹ 17 Stat. L. 863.

Marshall McDonald, chosen to succeed Goode in 1888, was a practical fish culturist, many of whose inventions for improving fish culture are in use even today. His advent to the office meant that fish-culture work would continue to be the primary function of the Fish Commission. The other activities were continued and even somewhat expanded during this same period. The scientific work was advanced by the equipping of the Woods Hole Station, by the building of other seagoing vessels, and by increased appropriations for the staff. Fish statistical work was continued from year to year with the appropriations increasing slowly.

Mr. McDonald died in 1895 and after a short term of two years when the office was filled by John J. Brice, a retired naval officer, George M. Bowers of West Virginia became commissioner. It is well known that the appointment of Mr. Bowers was the price paid by McKinley, under a pre-convention agreement made by Mark Hanna, for the support of Senator Elkins and the West Virginia delegation in the Republican National Convention of 1896.²⁰ Notwithstanding that fact the Bureau made considerable strides forward during his administration chiefly because he had the good sense to rely largely upon his staff of permanent civil servants in all technical matters.

In 1903 the Commission of Fish and Fisheries as an independent institution of the government directly responsible to Congress was abolished and in its place the Bureau of Fisheries was set up in the newly established Department of Commerce and Labor.²¹ In 1912 when the Department of Labor was established separate from Commerce, the Bureau of Fisheries remained in Commerce.²²

²⁰ A tale, the truth of which the writer will not vouch for, is that when Coolidge in later years was informed of this deal, he dryly remarked, "That was an awful price to pay for West Virginia."

²¹ 32 Stat. L. 827.

²² 37 Stat. L. 736.

There was an extension of the work of this Bureau in all fields during the first decade of the century. Another laboratory was erected in 1901 on an island near Beaufort, N. C., chiefly for scientific work on the aquatic life of the south Atlantic coast. In 1907 a biological survey of the water surrounding the Philippine Archipelago was undertaken and carried out with important resulting discoveries.

Fish cultural work continued to expand during the same period, new hatcheries being built and the staff slowly but steadily increasing. The statisticians of the bureau began a study of the kind and quantity of fish in and about the territorial possessions of the United States while continuing their usual work of gathering information along the Great Lakes and on the seacoasts.²³

The bureau first began its work in Alaska in 1889 when by act of Congress an investigation of the salmon, their abundance and distribution was undertaken with the view of recommending to Congress such legislation as might be deemed necessary.²⁴ The actual control of the salmon fisheries, however, remained under the Secretary of the Treasury until 1903 when it was transferred to the Secretary of Commerce and Labor and by him placed under the Bureau of Fisheries.

The protection of the Alaskan salmon fisheries proved to be a very difficult problem. As the canning industry developed every device that could be used for wholesale capture of fish was put into operation, and gradually all the favorite streams of the salmon became so blocked with seines, gill nets, traps, and barricades that but a small proportion of the fish could find passage to the spawning grounds and the future supply was seriously endangered. In the face of this serious situation the bureau was given broad

²³ Smith, Hugh, *The Bureau of Fisheries, op. cit.*, p. 1391.

²⁴ 25 Stat. L. 1009.

powers of regulation including the right to set aside streams as spawning grounds which would be completely closed to all types of fishing.²⁵

The Alaskan fur seals like the Alaskan salmon fisheries had been under the control of the Treasury but in 1908 were placed under the Bureau of Fisheries in the Department of Commerce and Labor. Two years later on expiration of the private sealing lease the bureau assumed actual charge of sealing operations under the authority of an act of Congress.²⁶

In an attempt to avoid duplication of effort and to establish a more logical administrative system, the control over land animals in Alaska which had been vested in the Secretary of Commerce was transferred to the Secretary of Agriculture, and the powers exercised by the Secretary of Agriculture over sea-lions and walrus were given over to the Secretary of Commerce by a clause in the appropriation act of 1920.²⁷ The latter, however, was specifically continued in his control over the Pribilof Islands and the fur animals found thereon.

It might be said that with one exception this marked the end of the period of foundation building. Since 1910 there have been occasional changes in the administrative structure, in the personnel and in policies but not in the general functions of the bureau. Scientific research in aquatic life, the collection of vital fishery statistics, fish-culture work, and the administration of the Alaskan seal and salmon fisheries, have been the chief lines of activities within the bureau. There has been a steady expansion of work but upon foundations laid prior to 1910.

²⁵ 29 Stat. L. 316.

²⁶ 36 Stat. L. 326.

²⁷ 41 Stat. L. 694.

The one exception mentioned above was the black bass protection work which was started in 1930. Following along the lines of the Lacy act,²⁸ Congress in 1930 passed the Black Bass Act which prohibited the shipment in interstate commerce of black bass taken or possessed in violation of state statutes.²⁹ A small division was set up within the bureau with a staff of half a dozen to enforce this statute.

Commissioner Bowers was removed in 1913 at the instance of the Secretary of Commerce, Mr. Redfield. His successor, Dr. Hugh M. Smith, who had long been deputy commissioner (1903-13) was appointed from a list of candidates recommended by a committee representing the American Society of Naturalists and the American Zoological Society. He had entered the service in 1886 at the age of twenty-one and had risen through the various grades to the top.³⁰

After nine years as Commissioner, Dr. Smith's resignation was requested in 1921 for reasons that are obscure. Henry O'Malley, Dr. Smith's successor, had also been long in the Bureau's service. From 1916 to 1918 Mr. O'Malley had been chief of the division of fish culture and from 1918 to 1921 he had been in charge of all phases of the bureau's work on the Pacific coast and in Alaska.

The last change in leadership in the bureau occurred after the new democratic administration took office in 1933. Mr. Frank T. Bell, formerly secretary to Senator Dill of Washington, was named to succeed Mr. O'Malley. This political appointment after a period of twenty-five years of scientific leadership was justified by the Democratic leaders on the grounds that Commissioner Bowers had been appointed in 1898 purely upon political grounds.

²⁸ See p. 86.

²⁹ 46 Stat. L. 845.

³⁰ Macmahon, Arthur, "Bureau Chiefs in the National Administration," *American Political Review*, vol. 28, p. 780 (1926). Case discussed in detail.

Administrative Organization of the Bureau: Like those of the Biological Survey, the functions of the Bureau of Fisheries may be divided into three major classes; investigation, promotion, and regulation. The original function of the bureau was entirely concerned with investigation and recommendation. It still constitutes the most important work of the bureau and employs the most highly skilled personnel.

At the present time, of the five divisions making up the bureau administrative organization, two, that is Scientific Inquiry, and Fish Industries, are engaged chiefly in investigation; one in promotion, the Division of Fish Culture; and two in regulation, the Alaskan Division and the Division of Law Enforcement. This classification is somewhat arbitrary inasmuch as all of the divisions do some investigating and promotional work.

Division of Scientific Inquiry: Although the activities of the bureau have been greatly enlarged since its establishment in 1871, the Division of Scientific Inquiry still handles many of the functions performed by the original Fish Commission. It carries on investigations, chiefly biological in character, regarding the occurrence and the extent of the decline in the number of food fishes in the coastal and interior waters. It attempts to discover what the cause of such declines may be, and recommends means of remedying them, either by regulatory legislation or by the more positive means of augmenting the source.

The division is divided into ten sections, five of which are geographical and five functional. The geographical section comprises those general investigations carried on in the various sections of the country, while the functional are investigations of an activity not limited to any one location. The geographical sections are the North Atlantic, with headquarters at Cambridge, Mass., South Atlantic and Gulf,

headquarters at Beaufort, N. C., Great Lakes, Ann Arbor, Mich., Interior Waters, Columbia, Mo., and Pacific Coast-Alaska, with headquarters at Seattle, Washington. The remaining five sections deal with aquiculture, screen and ladder, western trout, and shell fisheries investigations, besides a section devoted to ichthyological studies.

The functions of this division, as implied by its name, are biological research in aquatic animals. As has been pointed out, research is, and rightly should be, one of the chief functions of the federal government in relation to wild-life conservation. In the early days of the Fish Commission the stress in research was upon systematic ichthyology but since 1900 the policy of the bureau has undergone a gradual change and at the present time the major studies of the bureau are upon physiology, embryology, and the natural history of fish.

Studies in the temperature, currents, and chemical composition of sea water, its oxygen content, acidity, salinity, etc., all have ultimate bearing on fishery problems, some of them surprisingly direct. Each of these factors influences the kind and quantity of the small floating organism in the surface of the waters known collectively as plankton, upon which fish feed. Through a study of the currents, spawning grounds have been discovered, their extent charted, the duration of larval life and the distances eggs and larvæ are carried has been worked out.

Interesting as abstract facts may be, the fisherman is concerned in only one problem and that is the production of bigger and better fish. In other words, the most immediate practical contributions of fishery science are the quantitative studies of fish populations. It is the three factors, birth rate, death rate, and migrations that determine the local abundance of any species of fish. To be able to forecast the abundance of fish in a certain locality, and to determine

how the industry must be regulated in order to assure a greater abundance is the chief problem before the Division of Scientific Inquiries.

On the other hand, the scientific studies have been carried on upon a broad basis with the knowledge that certain fields would not yield immediate results but would in the future be of incalculable value. An example of long-view research is found in the study of the chemistry of fish blood which at the moment it was undertaken appeared to have little practical value. It was soon discovered, however, that a substance in the blood of some species of river fish prevented the attachment of the larvæ of the fresh-water mussel, and that other fish, lacking this substance, carried these minute parasites until they are ready to live the life of adult clams and grow the lustrous shell which is manufactured into pearl buttons. From this study has come a method of artificial propagation of the fresh-water mussel which is worth many thousands of dollars annually to the button industry in the Mississippi Valley.³¹

One cannot but be impressed by the fact that the Division of Scientific Inquiry has kept its feet on the ground, consequently its scientific work has resulted in practical conservation measures. Its studies in the life history of fish which in itself seems only of academic interest has led to the forecasting of the size of fish runs in a stream with marvelous accuracy.

The results of the studies undertaken by the division form the foundations upon which the other units in the bureau carry on their work. The information obtained by the several geographical sections is of vital importance to the Division of Fish Industries in determining the advice which it will give to commercial fishermen, and to the Alaskan Division in determining the regulations which it will set up for the salmon and other fisheries in Alaska.

³¹ Higgens, Elmer, *Fishing Gazette*, June 15, 1930, vol. 47, p. 63.

The Agricultural Investigations Section maintains two experimental fish hatcheries and its studies go to aid the work of the Division of Fish Culture. New and better equipment for hatcheries, more efficient methods of propagation, fish diseases and their cure are all contributions made by Scientific Inquiries to the work of the Division of Fish Culture.

An investigation of the means of improving screens at the mouths of irrigation ditches and fish ladders over power and irrigation dams was begun in 1928,³² under the direction of the Screen and Ladder Section. Two general types of screens have been developed, one mechanical, the other electrical. Either when properly placed has been found to operate with efficiency in preventing fish from entering irrigation ditches or in directing them to safe by-passes around power projects.³³

The Federal Power Commission has been in the habit in recent years, when granting permits for the construction of private power projects, of providing that in streams in which fish are likely to go to spawn, fish ladders must be constructed at the dam to enable them to go around it into the upper waters. Congress in 1934 wrote such a requirement into law providing that no dam should be constructed, either by the federal government itself or by any private agency under permit, until the plans had been approved by the Bureau of Fisheries.³⁴ The Screen Ladder Section has supervision of the planning and construction of such ladders and screenage.

The western trout investigations are carried on chiefly for the benefit of the National Parks and Forests in the

³² 45 Stat. L. 478.

³³ *Report of the Commissioner, Bureau of Fisheries*, Appendix II, p. 115 (1933).

³⁴ Public No. 121, 73rd Congress.

inter-mountain region. The life history, abundance and methods of propagation of trout are the chief studies. Upon the advice given by the division, the National Park Service and the Forest Service carry on the restocking program in the nation's parks and forests.

The information obtained is not for the use of the federal government alone, but also is made available to the state conservation departments by means of printed pamphlets and personal conferences. In a sense the division acts as expert consultant to the state departments upon any problem relating to fisheries. Of course, the division has no coercive power to put its recommendations into effect in the various states, and sometimes due to political influence they cannot be immediately carried out.

The technical staff of the division at the present time consists of some fifty permanent research men with a score of less trained assistants and perhaps another score of temporary specialists, chiefly from university faculties, who are employed for limited periods of time.³⁵ These investigators are distributed over the entire country in small groups organized into compact research units, and maintaining headquarters either at the bureau's biological and experimental stations or at some university.

The division chief is kept informed as to the progress of the various investigations through written narrative reports from the head of each section, who in turn receives reports from his subordinates. In the past the technical personnel have been brought together occasionally in conference, at which time appropriate papers concerning the work of each group would be read and discussed. For the present, due to the economy program, these national conferences have

³⁵ Appointments to the permanent staff have lagged behind appropriations because of a lack of trained candidates for positions. *Report of Commissioner (1933)*, Appendix II, p. 81.

been replaced by regional ones attended by the Division Chief from headquarters and those members of the field staff working in each locality.

Division of Fishery Industries: This division is an investigating organization concerned with the collection and publication of fishery statistics, the conducting of market surveys and with studies designed to solve the technical problems of the fishing industry. Its administrative set-up conforms to its major functions, one section being devoted to the gathering of statistics and the other to technological and marketing research.

In order to determine whether our fishery resources are being depleted or not, statistical facts are necessary. By means of agents stationed at the chief fishing ports of the country, directed from district headquarters located in Seattle, Washington; Portland, Maine; and Gloucester, Massachusetts, this division gathers what might be called the "vital statistics" of our fisheries. The statistics cover a wide range of items, including the amount of the annual catch by states, the number of vessels and of persons engaged in fishing, the type of nets used and the return for each type in the number of pounds of fish caught, etc. These statistics when compared with those of former years indicate to the biologist in the Division of Scientific Inquiries and to the scientists in the Division of Fish Culture the success or failure of their conservation and restocking efforts.

The section devoted to technological and marketing research is carrying on six major studies, touching nutrition, refrigeration, production methods, net preservation, bacteriology, and mechanical equipment. It will not be necessary to go into these studies in any detail but the work done in one, production methods, can be taken as an example. For

years fish scrap and fish oil have been recognized as low grade by-products of the fishing industry. During recent years, as a result of the research of this section of the division, new outlets have been found for both, especially as animal food, with a resulting enlarged market for the fish industries.

There is close co-operation between this division and the state conservation departments in the gathering of statistics. The division has repeatedly urged the states to keep up-to-date statistical information in regard to their fisheries and gradually has been able to swing them into line. It has gone further, and in the interest of uniformity has suggested the proper forms to be used for the purpose.

With the comparatively limited funds at its disposal the division has felt that it must give its attention only to fundamental problems of value to large groups. Problems affecting a single concern have arisen from time to time which the division would have liked to study but could not without endangering its major projects. However, by act of Congress in 1932,³⁶ the bureau was authorized to furnish research facilities whereby firms or groups having special technological problems to solve will provide the investigator and pay his salary and expenses. The work may be carried on in the bureau's laboratory in co-operation with its research staff.³⁷

The personnel of the division is composed of men trained either in statistics and business administration or in bio-chemistry and engineering. Reports from the field are by the weekly itinerary method upon prepared forms except in the case of scientific investigators who report monthly in narrative form.

³⁶ 46 Stat. L. 373.

³⁷ *Report of Commissioner, Bureau of Fisheries* (1933), App. III, p. 152.

Division of Fish Culture: This division constituting the largest division in the bureau from the view of number of personnel employed is engaged chiefly in promotional work. The field organization, at the points most distant from Washington, is directed by district supervisors, of whom there are three, one for the Pacific Coast and Alaska, one for the Rocky Mountain area, and one for the Mississippi Valley. Eastern hatcheries are supervised from headquarters. The operation of the four fish-distribution cars is subject to a superintendent responsible to the commissioner.

The major work of the division is the erection and maintenance of fish hatcheries, but in addition it directs fish-salvage operations along the Mississippi River, returning to the river or to adjoining streams fish stranded in the sloughs after the spring floods. As the adjacent states are gradually taking over this type of work the operations of the bureau tend to confine themselves to the Upper Mississippi Wild Life Refuge which is directly under federal control.

The output from the hatcheries during the fiscal year 1932, which was fairly typical, amounted to over seven billion eggs, fry and fingerlings,³⁸ representing a slight decrease over the previous year. The output was divided as follows: game fishes (non-commercial, thus omitting lake trout and pike perch) 1.5 per cent; anadromous species (forms which resort to fresh water to spawn) 3.3 per cent; commercial species of interior waters, 17 per cent; marine species, 78 per cent; and miscellaneous, 2 per cent. Practically every form of fresh-water fish was included among the forty-nine species which were propagated or handled by rescue crews during the year. Although the marine fishes constitute the largest numerical percentage, they were limited to relatively few species because many marine fishes are

³⁸ *Report of the Commissioner, Bureau of Fisheries (1932)*, p. 533.

either not readily susceptible to propagation methods or are not in need of such conservation measures.

Each hatchery superintendent submits a monthly narrative report setting forth in a general way the work of the station and sub-station that he directs. In addition he files annual reports of a general nature and monthly tabulated reports on the progress of the fish eggs being hatched at his station. These reports together with the visits of the district supervisors and the division chiefs are means of contact between headquarters and the field.

As has already been pointed out, there exists a close working relationship between this division and the Division of Scientific Inquiries. Experimental work is being constantly carried on by the latter division to improve the methods of propagating fish. There is no compulsion upon this division to accept the recommendations of the experimental hatcheries but in fact it is only too willing to do so. To a lesser degree the work of the Alaskan division likewise is related to that of the Division of Fish Culture inasmuch as the distribution of salmon fry in the Alaskan commercial fisheries constitutes one of the major activities of the division.

At the request of the Forest Service and the National Parks Service, the Bureau of Fisheries undertook to keep the reservations operated by those services stocked with fish. The work is not carried on under a formal written agreement but by informal understanding. Nevertheless the cooperation between the services has been fairly satisfactory over a long period of years. Two hatcheries are now maintained exclusively for that purpose and a third in Mt. Rainier National Park is nearing completion.

Efforts have recently been made to obtain contacts with the Bureau of Reclamation,³⁹ since the activities of that

³⁹ See Public Bill No. 121, 73rd Congress.

federal agency in constructing and maintaining irrigation projects have a strong bearing on the welfare of important fisheries. The arbitrary raising or lowering of the water levels in impounded reservoir lakes may have a disastrous effect on aquatic life.

To some extent the bureau, and in particular this division of it, has co-operated with the Bureau of Indian Affairs in keeping Indian reservations stocked with fish, but in most cases the division has merely furnished them a supply of fish fry which were set out under the direction of the employees of the Indian Bureau. In like manner it has co-operated with the Bureau of the Biological Survey in the management of the Upper Mississippi Refuge.

The division operates its fish cultural activities upon the policy that state and federal hatcheries in the same region do not necessarily mean duplication and waste. The problem is the proper stocking of the nation's lakes and streams as an aid to conservation. In certain localities the bureau feels it may be necessary for both the state and the federal government to operate hatcheries to meet that need. Duplication can be eliminated, the division thinks, by co-operation largely in the nature of technical management and more effective routine administration. In the majority of cases, no doubt, the states are the principal beneficiaries of such co-operation.

The exchange of eggs and fry between federal and state hatcheries by which the state agencies are able to secure eggs not available in their area is an argument often advanced in favor of the maintenance of federal hatcheries. However, it would be quite possible for this division to act merely as a clearing house for information regarding state hatchery operations and to leave to the states the problem of arranging exchanges of fish eggs.

The Alaska Division: As its name implies, the Alaska Division deals with the regulation of the fisheries resources in Alaskan waters and with the direction of the fur-seal industry on the Pribilof Islands. It is organized on the basis of two major sections, one devoted to salmon and other fisheries, and the second to the fur-seal industry. The headquarters for fur-seal activities is located on the Pribilof Islands in the Bering Sea about 240 miles from the nearest port, Unalaska, in the Aleutian Islands.⁴⁰ On these islands, about 80 per cent of the seals of the world have their breeding grounds.

The islands, of which only two (St. Paul and St. George) are inhabited, contain a population of nearly four hundred natives. Isolated from the rest of the world, the islands are a little self-contained community. Each summer it has been customary for the navy to detail a ship to transport the major portion of the general supplies needed on the islands during the coming year and to take back to Seattle the furs that have been gathered during the season passed.

During the rest of the year the islands are dependent upon the Fisheries Bureau's ship *Penguin* which voyages north about once every two months carrying perishable supplies. The *Penguin* is also used in inter-island communications and in the transportation of natives from villages on the Alaskan peninsula to the islands for temporary employment in the sealing industry. The coming of the radio forged one more link with the outside world, but still the inhabitants have to depend upon themselves during most of the year.

The bureau does everything possible to make life livable in this distant outpost of civilization. It provides schools for the children, two doctors and a dentist to safeguard the health of the settlers, a priest and church for the natives,

⁴⁰ O'Malley, Henry, *The Fur-Seal Industry*, Bureau of Fisheries, publication No. 71.

most of whom are of the Orthodox faith, a library, assembly hall, game rooms, and even a barber shop. Recently there has been a considerable amount of construction work to improve the living quarters and the fur-packing establishment.⁴¹

Originally Congress authorized the Secretary of the Treasury to lease the privilege of taking fur-seals on the islands.⁴² The first lease was awarded to the Alaska Commercial Company for a period of twenty years from 1870, the company agreeing to pay an annual rental and a tax on each skin taken. In 1890 a similar lease was given the North American Commercial Company for a like period of years but since 1910 the government itself has conducted sealing operations. The total return to the nation during the forty-year lease period was over nine and a half million dollars.⁴³

In 1931 almost fifty thousand fur-seals were killed⁴⁴ by the natives working under the direction of the bureau personnel. In addition some nine hundred fox skins were taken on the islands by natives who were paid at the rate of \$5.00 per skin. The killing of seals is confined to three-year-old surplus males and provision is made for future breeding stock by reserving an adequate number of this age class. With scientific handling, the herd is increasing from year to year and it is estimated that at present it numbers well over a million animals.⁴⁵

⁴¹ *Report of the Commissioner, Bureau of Fisheries* (1933), App. I, p. 58.

⁴² Act of July 1, 1870, 16 Stat. L. 180.

⁴³ O'Malley, H., *Fur-Seal Industry*, *op. cit.*, p. 9.

⁴⁴ *Report of the Commissioner*, *op. cit.*, p. 79.

⁴⁵ O'Malley, H., *Fur-Seal Industry*, *op. cit.* Estimated 1,200,000 animals.

The skins taken are shipped to St. Louis where they are processed for the government by a private concern under contract. Then in the spring and fall of each year public auctions are held, at which time the skins are disposed of to the highest bidders. It is difficult to tell the net income received each year by the United States from the sale of furs taken on the Pribilof Islands, as the books of the bureau are not set up on a yearly basis. For example, during 1932, \$42,247 was paid the natives for their work in taking seal skins, and during that same year the sale of finished skins brought the government \$404,460. The skins sold, however, were not those of the 1932 crops but 1930-31 and former seasons. No attempt is made apparently to show processing charges, administrative overhead, or cost of the seal patrol maintained jointly by the Coast Guard and the bureau. During 1932, \$7,130 was paid natives for taking fox skins and during that year the sales brought \$20,000. According to law, sums remaining after payment for processing skins are covered into the general fund of the Treasury.⁴⁶

The salmon section is under the direction of an Alaskan agent who directs the activities of fourteen vessels and ten wardens, and through them the work of over two hundred temporary employees known as Stream Guards. The latter conduct the patrol on land and water, aided at times by an aerial patrol. Careful observations of the extent of the salmon run during the season and the examination of the spawning grounds at its close enable the agents to determine whether the legal escapement of 50 per cent has been observed. These surveys are the means, too, of deciding what changes in the regulation for next season will be necessary. The studies conducted by the Division of Scientific Inquiry

⁴⁶ 37 Stat. L. 502.

into the life habits of the salmon are of supplemental value in forecasting the approximate runs in various rivers a year in advance.

The improvement of the streams which the salmon use, the removing of log jams and boulders making possible a clear passageway for the salmon going up stream to spawn, is an important work of the division. In the past large numbers of salmon were injured in attempting to get by such obstacles.

The territorial legislature, by the act which organized the territory of Alaska, is empowered to alter, amend, modify, or repeal laws in force in Alaska with certain exceptions,⁴⁷ which include the fur seal and game laws. The legislature may, however, require additional licenses and collect fees for the same. It may also appropriate money for the aid of the fisheries although it is not bound to do so. In an act of April 30, 1931, for example, the legislature appropriated \$25,000 to be expended in improving salmon spawning grounds and in destroying predatory fish under the direction of the governor in co-operation with the Bureau of Fisheries.⁴⁸

In the main, however, the territory has been generously treated by the federal government. Income from the territorial fishing license fees amounted to over \$600,000 in 1931,⁴⁹ while the territory spent only a small part of it⁵⁰ in the improvement of the fisheries and need have spent none at all.

The Secretary of Commerce is authorized to make regulations setting aside certain areas and providing when and

⁴⁷ 37 Stat. L. 512.

⁴⁸ *Report of the Commissioner*, Bureau of Fisheries, *op. cit.*, p. 25.

⁴⁹ *Report of the Commissioner*, Bureau of Fisheries, *op. cit.*, p. 25.

⁵⁰ In 1931, only \$25,500.

how they shall be fished.⁵¹ Upon the basis of investigations and observations of its agents and wardens, together with the information provided by the Division of Scientific Inquiries, the Alaska division draws up these regulations and makes annual revision of them.

The personnel of the division is made up chiefly of residents of Alaska chosen under civil service regulations. The work in general is not of scientific nature and the man educated in the rough school of experience ordinarily is well qualified for the job. There has been little turnover in personnel, changes occurring only at rare intervals. The division chief keeps in touch with the work of his men by means of semi-monthly narrative reports supplemented by more detailed annual ones. The division chief in addition pays an annual visit of inspection to the more important of the Alaskan stations.

The division works in close co-operation with the Division of Scientific Inquiries and of Fishery Industries. The Coast Guard in furnishing escort to the seal herd at the time of their migrations and the Navy Department in transporting supplies to the Pribilof Islands furnish other examples of interdepartmental co-operation. The salmon-packing companies have also co-operated to the extent of providing a bounty fund which is administered by the bureau for the destruction of predatory fish.

Division of Law Enforcement: The work of the Division of Law Enforcement is chiefly to enforce the Black Bass Act of July 2, 1930⁵² which prohibited the shipment of black bass from a state or territory in violation of its laws and which made shipments subject to state law upon arrival in the state or territory to which they were consigned. The

⁵¹ 43 Stat. L. 464.

⁵² 46 Stat. L. 845.

act was patterned after the Lacy Act, as amended in 1909,⁵³ relating to the shipment of game animals between states. The Act of 1930 charged the Secretary of Commerce with its enforcement, and pursuant to that provision the Division of Law Enforcement was set up in the Bureau of Fisheries in March 1931, when an appropriation became available.

The personnel is limited to two field officers in addition to the division chief and office staff. Of necessity its work to date has consisted chiefly of co-operation with the various state authorities, inasmuch as violation of the federal law implies violation of a state act also.

Of the two field officers, one is stationed in New England and New York while the other operates in Kentucky and the neighboring states. The chief is able to keep in touch with their work by a weekly itinerary report and by special reports submitted at the conclusion of a specific investigation. It might be remarked in passing that the present chief was transferred to this division upon its establishment from the Division of Game and Bird Conservation in the Bureau of the Biological Survey, thus illustrating the personnel possibilities between the two bureaus engaged in conservation work.

The federal law in as far as real protection of black bass goes is dependent upon strict state laws. Therefore, the division has taken the lead in suggesting changes in their laws to various states in an endeavor to obtain uniform legislation and closed seasons during the meeting periods. The second major task confronting the new division was to obtain publicity for the federal statute. This was done by printing and wide distribution in leaflet form of the black bass laws.

Staff Functions of the Bureau: The activities of the Division of Administration are similar to those performed

⁵³ 35 Stat. L. 1137.

by the Division of Administration in the Bureau of the Biological Survey. Like the latter division, it has sections dealing with accounts, mails, and files, and property, and clerks who act as contract agents upon matter of personnel and the budget. But in addition there is a librarian, a section devoted to the drawing of contracts and leases, another to the maintenance of vessels in the service of the bureau and a third to drafting and engineering.

For the sections similar to those of the Biological Survey little time need be taken for description. The budget is handled in much the same manner in every bureau as are accounts and property. A word, however, can be said in regard to personnel. The employees of the bureau located in Washington, D. C. are given an efficiency rating according to the method developed by the Bureau of Efficiency⁵⁴ and used for all federal employees in Washington. The field personnel of the national government until the long-awaited reclassification act goes through are not under any uniform system of efficiency rating. The Bureau of Fisheries on its own initiative has evolved a simple method which has proved to be of considerable value in determining promotions. Each superintendent or agent in the field is required to grade the employees under him quarterly upon a form prepared by the Division of Administration.

The form provided for name, title of position, and a numerical grade upon the basis of 1-100 for conduct, efficiency, and health. Its defects are fairly obvious inasmuch as opinions will differ on what constitutes conduct and what efficiency. Equally defective is the numerical method of grading. Yet even with these defects, which the bureau administrators are the first to recognize, the ratings are of

⁵⁴The Bureau of Efficiency was abolished by Act of March 3, 1933, 47 Stat. L. 519, but the Bureau of Fisheries continues to use the same method of efficiency ratings.

considerable help in determining promotion, especially in the junior grades.

The librarian is in charge of the bureau's library which is maintained separate from that of the department. The legal section is charged with the drawing of contracts and leases subject to the approval of the solicitor of the department. The control over some 86 vessels in the bureau's service is divided. That which concerns their maintenance both mechanical and as to personnel is handled through the Division of Administration while their direction when conducting scientific or regulatory work is subject to the appropriate line division. The drafting and engineering section draws plans for new construction or repair work to be done on the property of the bureau.

Purchasing in general for the whole Department of Commerce is handled by the Division of Purchases and Sales in that department. Each bureau as it needs supplies, requisitions them on blanks provided for the purpose. Certain supplies such as fish food which must be obtained fresh are purchased in the field under annual contracts which have to be approved by the Division of Administration. The bureau is authorized to make purchases for the Pribilof Islands through the Seattle office, which is responsible to the commissioner directly. Supplies are purchased there in the customary manner under bid and contract, and afterwards shipped direct to the islands.

Problems of Policy: The Bureau of Fisheries has a well-earned reputation for scientific achievement equaled by few governmental agencies. It has been fortunate in being able, with few exceptions, to attract men of ability and initiative to its staff. Its administrative organization rests upon principles that conform to sound standards of administrative set-up. Its problems today therefore are external, not internal.

The greatest single problem which the bureau, like other conservative agencies, faces is to stimulate a declining natural resource. It is true that here and there, in certain areas, the fisheries seem to be holding their own and sometimes even increasing, but by and large, with ever-increasing demand there has come a decrease in supply. That the nation's fishery resources would be in a very depleted state without the work of the bureau, no one who studies the question can doubt. Equally true is the fact that notwithstanding its efforts there has been a decline. Here again the great problem is the control of predatory men whose depredations can only be met with increasing strictness of regulations and increasing efforts at restocking. It is along these lines that the bureau is conducting its work. It is by following along these lines that the bureau comes closest to carrying out its primary function, the conservation of the fishery resources of the nation.

CHAPTER VII

THE REORGANIZATION OF FEDERAL CONSERVATION AGENCIES

EVERY ONE of the ten executive departments of the federal government has something to do with wild-life conservation. Certain departments, it is true, are more interested than others; but all of them, directly or indirectly, have some part to play in the great movement for conservation of the wild-life resources of the nation.

The Department of Agriculture through the Biological Survey and the Forest Service, the Department of Commerce through the Bureau of Fisheries and the Bureau of Lighthouses, the Department of Interior through the National Park Service and the Office of Indian Affairs are all more or less actively engaged in wild life conservation work. The other executive departments play less direct, though important rôles—the State Department in handling correspondence with foreign governments and in negotiating treaties concerning wild life, the Treasury Department in supervising importations by means of the Customs Service, and the Department of Justice in handling prosecutions in the federal courts for violations of the conservation laws, and so on down through the remaining executive departments.

The Demand for Reorganization: In recent years there has been a considerable demand for a general reorganization of the administrative agencies of the federal government along the lines of primary function. A necessary part

of that reorganization would be a general overhauling of the agencies themselves in order to slough off activities not in accord with their primary function.

Fundamentally, there can be no quarrel with a logical administrative set-up; indeed, it is to be advocated wherever practical. But one cannot start at the bottom and build up the federal administrative system; one must start with the system that already exists and is in daily operation. Under those conditions reorganization inevitably implies an interval of disorganization, followed by one of readjustment, and both periods are detrimental to administrative efficiency.¹

The only reasonable ground for change is proof that the present system has serious defects, that these can best be remedied by a general reorganization and that the new set-up will be less expensive or at least measurably more efficient. The benefits accruing from a general reorganization may be worth the price the government must pay but the one point that should be kept in mind is that reorganization can only be had at the price of temporary disorganization. Therefore, it should only be undertaken when definite results can be foreseen.²

Before coming to the various plans for reorganization it might be well to consider the activities of the most important of the federal bureaus, other than the Biological Survey and the Bureau of Fisheries, which are engaged in wild-life conservation.

¹ Indeed, the mere talking about reorganization has a bad effect on the administrative personnel. When a bureau chief is uncertain who is going to be his superior next week or next month, it is likely to color all his actions. If reorganization is to be undertaken at all it should be carried through as rapidly as possible.

² See remarks in the same sense by T. Gilbert Pearson, representative of the National Association of Audubon Societies, *Consolidation of Federal Conservation Activities*, Hearings, Special Committee on Conservation of Wild Life Resources, United States Senate, Jan. 12-13, 1933, p. 34.

*The National Park Service:*³ The nation's parks constitute a great outdoor museum of natural history. The National Park Service was established in the Department of the Interior by act of Congress on August 25, 1916⁴ charged with their administration. The principle upon which the Service operates is to provide for the utmost enjoyment and use of the national parks by the present generation but in such a way that the flora and fauna will remain unimpaired for future generations. The Service does not attempt to develop artificial forms of plant and animal life or to eradicate the so-called predatory animals unless they exist in such numbers as to be a menace to other forms of animal life. It aims merely to maintain the parks in their primitive state in so far as is compatible with good sense.

The idea of setting aside portions of the public domain to serve as national parks open to use and enjoyment of the citizens of the whole nation dates back to the establishment of Yellowstone Park in 1872. From this beginning has come the system of national parks which span the continent.⁵

Although the first national park was established in 1872, it was not until 1916 that the management of the whole park system was centralized in the hands of the then newly established National Park Service. Indeed, it is doubtful if the Service would have been created then except for the untiring efforts of the American Civic Association and the official support which the movement received from several secretaries of the Interior.⁶

³ Name changed to Office of National Parks, Buildings and Reservations by Executive Order of June 10, 1933, but changed back to National Park Service by appropriation act for fiscal year 1935.

⁴ 39 Stat. L. 536.

⁵ For a complete history of the growth of the National Parks system, see Cameron, Jenks, *The National Park Service*, Institute for Government Research (1923).

⁶ Cameron, Jenks, *ibid.*, p. 11.

Fortunately, from the viewpoint of continuity of policy, the Service has had but three directors. Mr. Stephen T. Mather, a retired borax manufacturer, became the first head of the Service and continued in that position for over fifteen years. In 1929 he was succeeded by Mr. Horace M. Albright, who was followed by Mr. Arno B. Cammerer, the present director, in 1933. Both of these gentlemen had held important positions in the Service for over ten years before their appointment as director.

In order that the natural wonders within the parks may be fully enjoyed by the thousands of annual visitors, the National Park Service has stationed trained naturalists in each of the parks, whose duty it is to conduct tours and deliver lectures on the wild life found in the park. Natural history museums properly staffed with men able to explain the exhibits have been set up. The influence of such an educational program need hardly be pointed out, for nearly four million persons visit the parks each year.

The jurisdiction of the federal government over the national parks and the wild life found in them is complete with certain minor exceptions.⁷ This jurisdiction, as has been pointed out previously,⁸ is different from that exercised over other public lands, notably Indian and Forest Reservations where state game laws still apply.

In each park a ranger is designated as conservation ranger, whose duty it is to become versed with wild-life conditions in the park. At headquarters in Washington there has recently been organized a division of wild life especially charged with the task of handling the problems which arise in connection with wild life in the national parks. The con-

⁷ In some cases where the state deeded the land to the federal government, it retained the right to require state licenses for all fishing done therein. Example: Yosemite National Park in California.

⁸ See p. 46.

ervation ranger acts as contact agent with the wild life division in Washington, supplying it with information on wild-life conditions in the park.

As far as possible, it is the policy of the Service to call upon experts in the other federal bureaus for aid in solving many of the problems that arise in connection with the administration of the parks. For instance, the Bureau of Public Roads builds park roads and the Public Health Service provides a sanitary engineer, while advice upon similar problems is sought from a dozen other bureaus.⁹

In line with this policy experts are often called in from the Biological Survey or the Bureau of Fisheries to aid in solving wild-life problems in the national parks. Fish for restocking streams in the larger parks are furnished from the hatcheries of the Bureau of Fisheries, but for some of the smaller parks fish are obtained from the state conservation departments. The Service, of course, exercises no control over wild game once it leaves the parks but it has attempted to obtain state aid in prohibiting the slaughter of animals on the borders of the parks, and in that endeavor has been fairly successful.

The Forest Service: After a century of uncontrolled exploitation of timber resources, Congress, by act of March 3, 1891,¹⁰ authorized the President to withdraw timber areas of the public domain from sale. This was a step in the direction of conservation but it still left the forest reserves unprotected from fire or theft, as it made no provision for their administration. It was not until July 1, 1898 that money was appropriated to establish a special division in the General Land Office to administer the forest reserves.

⁹ For copy of formal agreement between National Park Service and the Bureau of Public Roads as to construction work, see *Hearings on H. R. 6665*, House Committee on Expenditures, 72nd Cong., 1st Sess., p. 128.

¹⁰ 26 Stat. L. 1095.

Long before this time, in 1876 to be exact, a Forestry Bureau had been established in the Department of Agriculture to do research work in forestry.¹¹ It has been suggested that the undoubted interest of the Grange and other farmers' organizations of the period in the relation of forestry to climate was responsible for placing the work in Agriculture.¹² However that may be, it resulted in a division between forestry research under the Forestry Bureau in the Department of Agriculture and the administration of timber lands under the General Land Office in the Department of the Interior.

This division continued until 1905 when, due to certain scandals that came to light in the Land Office relative to the forest reserves, the forestry work of the national government was all concentrated under the Bureau of Forestry, which in the year following became the Forest Service.¹³ Gifford Pinchot, who had been chief of the Bureau of Forestry since 1898, became the first head of the new Forest Service with the title of United States Forester.

Administratively the Forest Service is set up on a regional basis. The East constitutes one region, the states adjacent to the Great Lakes another, while that portion of the country west of the Mississippi, where most of the forests are located, make up six more, and Alaska, the last region. There are a number of forests in a region. A supervisor is in charge of each forest, subject to the direction of a regional forester.

¹¹ 19 Stat. L. 167.

¹² Cameron, Jenks, *Development of Governmental Forest Control in the United States*, p. 189, Institute for Government Research (1923). Mr. Cameron's discussion of the history of the whole problem of forestry control in the United States is excellent. Mr. Darrell H. Smith's monograph on the Forest Service in the series of the Service Monographs of the Institute for Government Research is also of help in forming a background for the consideration of the Service as it exists today.

¹³ 33 Stat. L. 628.

Today the primary aim of the Forest Service is to conserve the timber resources of the nation, and secondarily to permit their use for all purposes not incompatible with the primary aim. Where the forests are suitable they are open to grazing of domestic stock. In favorable locations the forests are stocked with game and fish to make them attractive to vacationers. Grazing and park use are not necessarily opposed to each other because in general they call for different types of land.¹⁴ However, it does require systematic planning to determine the proper ratio of grazing area to land reserved for the vacationists. An all-round plan of forest development was drafted with the aid of the other conservation bureaus in 1928 pursuant to a Congressional act of that year.¹⁵

With a view of a planned development of the wild-life resources within the forest, the Forest Service requires an annual statistical report from each supervisor on fish and game conditions in the area under his charge. Coordinating these reports is the duty of a special man detailed for that purpose on the staff of the western regions where the need is greatest. As the problem is essentially one of forest planning it is handled by the personnel of the Service itself. However, it is the policy of the Service to make use of the other conservation bureaus for solution of technical problems that arise, for the supplying of fish for the streams, and for the control of predatory animals when they become too numerous.

It is tacitly recognized that the state normally has control over animals *ferae naturae* found in national forests as well as on other lands within the state. The Forest Service has

¹⁴ *Hearings on Grazing Sheep in National Forests*, Special Committee on Conservation of Wild Life Resources, United States Senate, 73rd Cong., 2nd Sess., Jan. 27, 1934.

¹⁵ McSweeny-McNary Act, 45 Stat. L. 699.

never disputed this principle; indeed, in its relation with the states, accepts it. The federal government has in some cases made national forests game refuges but only after obtaining the consent of the state concerned.

The federal government may, however, make regulations incidentally affecting wild life in the forest without the consent of the state when such regulations are required for the better preservation of the timber resources within the area. In the Kaibab National Forest in Arizona some years ago the deer increased to such a point that they became very destructive to young trees. The supervisor provided for their removal over the protests of the state officials and the United States Court upheld him, although the court did not go further than to say that such action might be taken where wild life was damaging federal property.¹⁶

The Forest Service and the states usually cooperate with each other in a variety of ways. In a few cases where the states have the proper conservation experts located near at hand the Service has called upon them for aid in solving wild-life problems. In return for such aid the Service has undertaken to aid the states in enforcing their game laws. Forest rangers are often deputized by the state conservation department as its special officers, while state wardens operating in national forests pledge themselves to report outbreaks of forest fires to the Forest Service.

Formal written agreements have been entered into in many cases between the United States Forest Service and the states, and also between the Service and the various federal bureaus, setting forth the duties of each party. As a general rule such cooperation has been most satisfactory to both parties although instances have and will occur where the state department, due to political influence or administrative incompetency, have failed to prosecute game-law vio-

¹⁶ *Hunt v. United States*, 278 U. S. 96 (1928).

lations occurring in the national forest which have been reported to them by the Service.

What will the future bring? Will such lack of cooperation on the part of a few states necessitate the federal governments obtaining complete control over its forests or the abandonment of the attempt to maintain forests in non-cooperating states. The Service itself favors the policy of watchful waiting, foreseeing gradual improvement in the state departments. Cooperation, it knows from experience, can be helpful, and it hopes in the future that it will be successful in every state.

Bureau of Indian Affairs: The Act of August 7, 1789¹⁷ creating the War Department placed the direction of Indian Affairs under the Secretary of War, but there was no officer at the seat of government solely charged with Indian affairs except the Superintendent of Indian Trade (1806-22) until the Bureau of Indian Affairs was created by the Secretary of War, Calhoun, in 1824.¹⁸ Congress in 1832¹⁹ gave this new organization legal standing by authorizing the President to "appoint, by and with the advice and consent of the Senate, a commissioner of Indian Affairs, who shall, under the direction of the Secretary of War, and agreeable to such regulations as the President may from time to time prescribe, have direction and management of all Indian affairs, and of all matters arising out of Indian relations." This act was amended in 1849 when the office of Indian Affairs was transferred to the Department of the Interior, where it has remained until the present day.²⁰

¹⁷ 1 Stat. L. 49.

¹⁸ 19th Cong., 1st Sess., H. Doc. 146, p. 6.

¹⁹ 4 Stat. L. 564.

²⁰ For a detailed history of the Indian Affairs, see, Schmeckebier, Laurence, *The Office of Indian Affairs*, Service Monograph, Institute for Government Research (1927).

The present-day activities of the office consist of the supervision of all Indian affairs, both tribal and individual, in so far as Congress has provided for such control. This involves the making of land allotments, custody of Indian funds, educational activities, and general supervision over those parts of the public domain which have been set aside as Indian reservations.

As a general rule,²¹ the state in the absence of legislation by Congress to the contrary has jurisdiction over animals *ferae naturae* found on Indian reservations.²² Indians living on the reservation, however, in view of their particular relation to the federal government as its wards, are not subject to the game laws of the state.²³ Indians are personally immune from arrest, but once the game passes out of their possession it becomes subject to the state law.²⁴

Non-Indian persons hunting or fishing on a reservation are subject to the state game laws and to the jurisdiction of the state courts for violation of them. Such persons are required to obtain state hunting and fishing licenses and in addition a federal permit from the superintendent in charge of the reservation allowing them to enter upon federal property for the purpose of taking wild game.

When hunting or fishing outside of the reservation or on allotted lands no longer held in trust, Indians, inconsistent as it may seem, like other citizens of the state, are subject to state game laws and to the jurisdiction of the state courts for violation of those laws, to the same extent as any citizen of the state.²⁵

²¹ See page 48.

²² See memorandum issued by Bureau of Indian Affairs, regarding hunting on reservations, Feb. 3, 1932.

²³ See page 46.

²⁴ *Ibid.*

²⁵ See page 47.

Treaties with certain tribes sometimes carry express retention not only of the exclusive right to hunt and fish within their reservation but also the right to hunt and fish on ceded lands outside the reservation, particularly "at their usual and accustomed places" or "in common with other citizens of the state." This simply means that the state cannot deny to the Indians the continued right to enjoy, in common with other citizens of the state, fishing and hunting privileges in accordance with the laws of the state, but such treaty provisions do not give the Indians any right to hunt outside their reservation during the closed season as provided by state law.

Even in regard to the Indians themselves, the Bureau attempts to induce them for their own good to observe reasonable limits as to season and quantity in their hunting and fishing. The Bureau is powerless, however, to force them to keep within such limits. An endeavor has been made by restocking operations to keep enough game and fish on the reservations to take care of the normal Indian demand.

The states have cooperated with the superintendents of the reservations in providing for the patrol of those areas most likely to be invaded by non-Indians. In a few rare instances the Bureau has even gone so far as to allow the state to deputize its employees as special state game wardens, although in general it does not favor allowing this work to be unloaded on its men.

Both the wild life bureaus of the national government and the state departments have cooperated with the Bureau in furnishing expert advice on restocking operations and to aid the Bureau in stamping out animal diseases on the reservations. In addition, the Biological Survey has actively undertaken predatory animal and rodent control on some of the reservations.

Bureau of Reclamation: The purpose of the Bureau of Reclamation as stated by the Reclamation Act ²⁶ is to engage in the investigation, construction and operation of irrigation projects in the seventeen arid and semi-arid states of the West. A development unforeseen at the time the Bureau was established was the possible use of the reservoirs for recreation. To this end the aid of both the federal Bureau of Fisheries and the state departments of conservation has been enlisted to stock these reservoirs with game fish. On a number of the larger reclamation projects the Bureau has permitted the use of boats and other accommodations for recreational purposes.

The funds for reclamation come largely from the sale of public lands irrigated, which are turned back into a revolving fund, from the repayment on construction costs by the water users, and more recently from oil leases and other mineral operations. It seems to have been the original intention to construct these irrigation projects on public lands as an aid in promoting their settlement, but with the rapid development of the West projects have been undertaken where the greater part of the surrounding land is already privately owned.

The Bureau of Reclamation, although not directly charged with wild-life conservation, cooperates with state and federal officials in the protection of fish and game within its reservations. The President has by a series of executive orders set aside most of the reservoir areas as wild life refuges. The orders usually stated that the use of the reservation as a wild life refuge shall be considered secondary to the primary reason for which the waters have been impounded, that is, reclamation.

The jurisdiction of the states over wild life on those areas under the Bureau's control which have not been made wild

²⁶ Act of June 17, 1902, Ch. 1093, 32 Stat. 388.

life refuges is recognized. Such areas are patrolled by state game wardens. State hunting and fishing licenses are required, although some states do show special consideration for the reservoir areas by granting licenses to non-residents to hunt and fish at the same cost as residents of the states.

The General Land Office: When the Treasury Department was created in 1789,²⁷ the Secretary was required to "execute such services relative to the sale of land belonging to the United States" as might be required of him by law. This act was followed by a series of others, increasing the duties of the Secretary, providing for district land offices, and for a Surveyor-General to complete the land survey. Finally in 1812²⁸ Congress established the General Land Office as a bureau in the Treasury Department. There it remained until 1849 when it was transferred to the Department of the Interior.²⁹

The chief function of the General Land Office at the present time is the proving of title to the public domain of the nation. It has had no particular policy in regard to conservation of wild life in that vast area, although the Biological Survey has come in at its own request to aid in the control of predatory animals found on public domain in a number of specific instances.

This general lack of policy in regard to the administration of the public domain has left the General Land Office open to attack, and finally in April 1930 Congress passed an act³⁰ authorizing the President to appoint a commission to study the conservation and the administration of the public domain. The committee was appointed and reported in January of the following year.³¹

²⁷ 1 Stat. L. 65.

²⁸ 2 Stat. L. 717.

²⁹ 9 Stat. L. 393.

³⁰ 46 Stat. L. 153.

³¹ *Report of the Committee on the Conservation and Administration of Public Lands*, Jan. 16, 1931, Govt. Printing Office.

It recommended a change in the nation's policy of administering public lands based upon the premise that very little, if any, whose title remains vested in the national government is valuable for agricultural use. It can be used chiefly for grazing purposes, and to that end a grazing policy should be developed. The states, in the opinion of the committee, are the governmental agency to administer such areas.

The committee recommended, therefore, that areas of public lands that could be used for the development of national forests, parks, reservoir sites, defense purposes, or migratory bird refuges, in the opinion of the respective federal agency engaged in such work, be set aside and that all the remaining public lands be granted to the states that would accept them. In those states not accepting the grant, some federal agency should be charged with the administration of the grazing area as a national range.³²

The committee did not specify in what federal agency the administration of the national range should be vested. It did, however, approve of the manner in which the Forest Service had handled grazing within the national forests. Perhaps it might be suggested that if the grazing areas not accepted by the states were of relatively small size the Forest Service be given their administration, leaving the General Land Office to safeguard the interest of the federal government in mineral lands alone.

Remaining Public Domain Bureaus: There are certain other bureaus having to do with the public domain but not in any way concerned with wild-life conservation. A brief description of their activities is included at this point so as

³² Many of the conservation groups strongly opposed the recommendation of the committee to vest title to grazing land in the states. See article by the Secretary of Interior, Harold Ickes, "Land Planning," *Survey Graphic*, February, 1934.

to give a complete picture of the public domain group of bureaus.

The United States Geological Survey³³ was established by act of Congress March 3, 1879³⁴ in the Department of the Interior, charged with the duty of making a survey of the mineral resources, geological formation, and products of the territories. The act was later amended to allow the Survey to operate in the states also.

The Soil Erosion Service in the Department of the Interior was created in October, 1933 by the Federal Emergency Administration of Public Works under authority of title II of the National Industrial Recovery Act of June 16, 1933.³⁵ The Service was allotted ten million dollars by the Public Works Administration³⁶ for actual soil-erosion prevention on the public domain and for experimental work in various agricultural areas.

The Office of Director of Subsistence Homesteads was also authorized by the National Industrial Recovery Act.³⁷ The duties of the Office were conferred on the Secretary of the Interior by the President³⁸ with the power to designate agents. The chief work of this office is to encourage the establishment of subsistence homestead areas adjacent to industrial centers.

Reorganization of Federal Conservation Activities: The bureau organization of the federal government has been established upon what appears to be two conflicting prin-

³³ For a detailed history and complete discussion of activities, see *United States Geological Survey*, Institute for Government Research (1918).

³⁴ 20 Stat. L. 394.

³⁵ 48 Stat. L. 201.

³⁶ *Report, Federal Emergency Administration of Public Works*, App. I, p. 2 (1934).

³⁷ 48 Stat. L. 201.

³⁸ Executive Order No. 6209, July 21, 1933.

ciples, one functional, the other geographical. Applying the functional pattern, the Bureaus of Fisheries, Biological Survey, Mines, Public Roads, Education were established; while applying the geographical pattern, the Bureaus of National Parks, Forests, Reclamation, the General Land Office, and Insular Affairs were set up with complete jurisdiction which cut across functional activities within the areas they administered.

Thus, while there existed a bureau to handle fisheries problems, the National Parks Service or the Forest Service might legally, if they wished, maintain their own fish hatcheries and fish experts within the areas entrusted to their jurisdiction. Fortunately, the inherent defects of this administrative structure have, in large measure, been remedied by working agreements between the various bureaus involved so as to avoid just this type of duplication of work.³⁹ Although this method avoids the evil temporarily, it does not solve the problem.

To make the situation more complicated, there are some bureaus charged with the duty of representing special groups such as the Office of Indian Affairs, the Children's Bureau, and the Women's Bureau. These bureaus are not established upon either the geographical or the functional principle, but rather upon that of group representation.

Administratively, the federal bureaus have been grouped together in the ten executive departments with some regard, usually but not always, to placing bureaus having like functions in the same department. On the whole, however, it has been a rather haphazard proceeding and there are many illogical groupings. The various bureaus that deal with conservation of wild life, for example, are found scattered among three departments—Agriculture, Commerce, and Interior. It has been seriously urged that a general reorgan-

³⁹ See page 133 above for example of such working agreements.

ization of the administrative structure of the federal government and the re-alignment of departments upon a strictly functional basis would be advantageous.

The Related Conservation Bureaus: The first principle of any reorganization plan, so far as conservation goes, must be to bring into close relation in the administrative organization those bureaus whose chief interest is the conservation of renewable natural resources, that is, the Biological Survey, Forest Service, National Park Service, and the Bureau of Fisheries. Conceivably these bureaus might well be part of a larger combination composed of all those bureaus whose chief interest is the administration of improvement of the public domain. In this larger group would be the General Land Office, the Bureau of Reclamation, the Soil Erosion Service, and the Geological Survey in addition to the conservation bureaus.

Unfortunately, under any principle of grouping there would be border-line cases. The Office of Indian Affairs, for example, does administer large areas of the public domain which have been set aside as Indian reservations; however, its chief function is the care and protection of Indians and it does not belong in a public domain group.

The Office of Subsistence Homesteads is an even more doubtful case. There would be no great harm in including it in a public domain group, yet its chief function is the settlement and development of specific areas near industrial centers. Its work is essentially different from the other agencies dealing with the public domain in, as it were, "the raw."⁴⁰

⁴⁰ The Bureau of Mines, the Bureau of Public Roads, the Federal Power Commission, and others have been omitted for the reason that their chief function is neither conservation of renewable natural resources nor administration of the public domain.

The most important problem at the present time is to set up a conservation division somewhere in the administrative structure. Then it will be possible to add or subtract bureaus from that group as later developments make necessary. Any particular combination will depend in large part upon what other groups are established and upon the future development of each particular bureaus.

The Brief for Reorganization: The chief objections to the present administrative system can be classed under three heads: (1) economic loss to the government, (2) economic loss to the individual dealing with the government, (3) the bad effect upon the administrative organization itself. Various estimates ranging from a few millions to several hundred millions of dollars⁴¹ have been made of the savings possible to the government through complete reorganization in all departments. It is difficult to say how much could be saved through a regrouping of the conservation activities of the federal government, but most probably not a great deal because there is at present very little duplication in their activities.

To offset these possible economies most of the proposed plans of reorganization contemplate some additional overhead in administration personnel. It would appear that if reorganization does not mean abandonment of certain activ-

⁴¹ See also message of President Hoover on reorganization, Feb. 17, 1932, p. 1. Regarding saving through consolidation of wild life bureaus, see Senator Wolcott's estimate of several millions of dollars. *Hearings on the Consolidation of Federal Conservative Activities*, Special Committee on Conservation of Wild Life Resources, United States Senate, Jan. 12-13, 1933. On the other hand, Secretary Hyde of the Department of Agriculture, although favoring reorganization, was unable to point out a single specific case, when cross-examined by House Committee, where economy would result. *Hearings on J. R. 6655*, House Committee on Expenditures in Executive Departments, 72nd Cong., 1st Sess., February, 1932, pp. 77-80.

ities now being carried on by one of the conservation bureaus, it can promise little in the way of money economies to the government.

Secretary of Agriculture Hyde suggested turning over to the states certain activities now being carried on by the federal government. Possibly some money could be saved that way by the federal government provided, of course, that the states were willing and able to assume the financial burden of those particular activities. One suspects that in most instances they would not, for one of the chief reasons why many activities were undertaken by the federal government was lack of interest upon the part of the states. At its best, this proposal would only be a means of shifting the burden from the federal to the state governments.

Simplification of the governmental activities in the interests of the public who have to deal with the government bureaus is perhaps a more valid argument in favor of reorganization. Mr. Hoover, when Secretary of Commerce, testifying before a Congressional investigation committee on this point, said:⁴²

The tax on the public in the necessity to maintain contact with many different bureaus in many different departments in connection with the same type of relation . . . is a tax probably greater than the cost of conducting many of these groups. Our industries and business are badgered to death for duplicate information by a host of non-coordinating agencies.

The strongest point that may be urged in favor of reorganization is the bad effect of the present system upon the departments themselves.⁴³ Where a number of agencies have contact with the same problem and are not clear re-

⁴² *Hearings on the Reorganization of the Executive Departments*, Joint Committee on Reorganization of the Administrative Branches, on S. J. R. 282, 67th Cong., January, 1924, p. 352.

⁴³ Note Secretary Wallace's comment on consolidation, *ibid.*, p. 271.

garding their respective duties, there is apt to be first competition between them for power. The struggle is followed by a recoil, disgust, and the desire to escape responsibility and power. This situation has developed in regard to wild life on public lands in the United States where there is a conflict of jurisdiction and consequently little or no interest in wild-life conservation.

That there is a vital need for a planned conservation program along national lines, embracing wild life, forestry, water resources, and soil utilization, there can be little doubt. The difficulty of planning a united program for the conservation of renewable natural resources, when there is dissipation of various parts of a single undertaking through many agencies in different departments, is self-evident.

Decentralization of conservation activities means that there is no one point where the searchlight of public opinion may concentrate itself. The report of the Senate Committee on Wild Life Conservation studying consolidation said: ⁴⁴

With these activities separated in the several departments of the federal government, the force of none is great enough to impress upon the public mind or the government itself the aggregate importance of these related conservation activities. Therefore, combined into a unified agency of the federal government they would lend vital force to one another.

Legislative vs. Executive Reorganization: One of the most difficult problems to solve in connection with reorganization of the federal government is the question whether the reorganization should be accomplished by Congress itself or whether the power to reorganize should be delegated to the President.

Reorganization by Congress means organization in the open where every move is known to all the bureaus con-

⁴⁴ *Hearings on Consolidation in Federal Conservation Activities*, Senate Committee on Conservation of Wild Life Resources, Jan. 12-13, 1933, p. 5.

cerned. Each bureau has its friends in Congress and most bureau chiefs are strongly opposed to transfers or consolidations. Consequently, congressional reorganization faces almost insurmountable inherent difficulties. The situation was well summed up in the testimony of Secretary of Interior Wilbur before a House committee when he said: ⁴⁵

This is the most difficult task in the government; it is the most difficult in every organization, to bring about reorganization with the consent of the people who are to be reorganized. They form a defense organization to protect themselves. It is just a natural human reaction. But here comes the President and says "I am willing to take the gaff; I am willing to go down with this thing; I have been studying it for a dozen years; I see a chance to make great economies, and if Congress will let me set up certain procedures here I am willing to take the trouble and put the thing through." My personal belief is that only the Executive, knowing the situation and willing to take the trouble and to stand the pains of the thing, will ever bring this about. It will never become automatic. Take my own position as head of a department: I cannot recommend that any head of department, any bureau, be transferred to any other department. I would lose the loyalty of that bureau at once. I cannot recommend that some other bureau be given to us from another department because I will get the enmity of that department at once. But the President sitting up there, and knowing all the different factors of the government, can say to me, "I think you must arrange matters so that everything that has to do with construction is elbowed out of your department, and I want you to tell me how it can be done," and then I tell him how it can be done, and he takes the pain and the medicine; I do not have to take them.

Legislative reorganization was tried first. A joint committee of the Senate and House on reorganization of the

⁴⁵ *Hearings on H. R. 6665 and H. R. 6670*, House Committee on Expenditures in the Executive Departments, 72nd Cong., 1st Sess., March 10, 1932.

administrative branch was established by joint resolution adopted on December 17, 1920.⁴⁶ This committee then requested the President to prepare a plan, which has come to be known as the "Cabinet Plan" since it was discussed by the President and cabinet and is a consensus of their opinion.

The Cabinet Plan of Reorganization: The principal administrative changes advocated in the cabinet plan of reorganization⁴⁷ (1923) were: (1) combination of the War and Navy Departments in a Department of National Defense, (2) establishment of a Department of Education and Welfare, (3) transfer, largely to the Department of Interior, of the non-military activities, especially civil construction work, now under the War and Navy Departments, and (4) a grouping of bureaus in each department under assistant secretaries.

In regard to the conservation bureaus no change was proposed except that the conservation bureaus already in the Department of Interior should be grouped together under an Assistant Secretary for Public Domain. The Biological Survey and the Bureau of Fisheries would stay out of this group, remaining as they are now in the Departments of Agriculture and Commerce, respectively.

The chief virtue of the cabinet plan was that it represented the first plan agreed to by the men who were to administer it, the cabinet officers. It had been thrashed out over a period of two years and represented a compromise of views among them.

The Proposals of Joint Committee on Reorganization: Although this committee was established December 17, 1920,⁴⁸ the cabinet plan prepared at its request was not sub-

⁴⁶ Public Resolution No. 54, 66th Cong.

⁴⁷ See *Report of the Joint Committee on Reorganization*, June 3, 1924, 68th Cong., 1st Sess., Doc. No. 356, Appendix A.

⁴⁸ Public Resolution No. 54, 66th Con. as amended P. R. No. 1, 67th Cong.

mitted to it until February 13, 1923 just before the adjournment of the sixty-seventh Congress. Thus it was not until January of 1924 that the committee began to hold hearings, and it did not report until June 3, 1924.

The committee had originally been composed of Senators Smoot of Utah, Wadsworth of New York, Harrison of Mississippi, and Congressmen Mapes of Michigan, Temple of Pennsylvania, and Moore of Virginia, but the resolution was later amended to permit the President to designate a representative to sit with the committee.

The report of the committee completely emasculated the cabinet plan. Pressure from bureau chiefs who opposed transfer, from constituents who feared their established connections with various bureaus might be broken, and indeed from individual cabinet officers who appeared before the committee for cross-examination led to the depletion of the principal parts of the cabinet plan.

In the joint committee's report the War and Navy departments were, with a few very minor exceptions, left as they were. A new department of Education and Relief in which were grouped bureaus taken chiefly from Interior or from one of the independent establishments. The only important feature of the cabinet plan that was kept was the proposed grouping of bureaus having like functions under assistant secretaries in each department.

The joint committee's report, as did the cabinet plan, recommended that the conservation bureau already in Interior be grouped together under an Assistant Secretary for Public Domain, and Biological Survey, the Forest Service, and the Bureau of Fisheries be left where they were, the first two in Agriculture and the last in Commerce. The committee did, indeed, consider establishing an inclusive conservation group in either Agriculture or Interior but apparently could not agree as to which department. As a

result, no change in the location of the conservation bureaus was proposed.

A strong plea was made by the Secretary of Agriculture at the hearing before the joint committee for the inclusion of all the conservation bureaus and most of the public domain bureaus in a land-utilization group in the Department of Agriculture. Mr. Wallace, in speaking of the General Land Office and the Bureau of Reclamation, said in part: ⁴⁹

The administration of the public domain, in so far as it is agricultural, is an agricultural activity requiring technically trained men, just such as are required in the Department of Agriculture. Now, what I say with reference to that, I am also going to say with reference to the Reclamation Service. If you are going to reorganize the departments with reference to their proper functioning the Reclamation Service is a Department of Agriculture function. We have great land areas that require technical study to determine what is the best use that can be made of them. All those problems are agricultural problems. We have great areas that can be made available for the plow if water can be gotten on them. We have other great areas that will be available for farming if the water can be gotten off them.

When considering a proposed reclamation project the first question to ask is, What will the land produce? That is an agricultural problem.

The second question to ask is whether a market can be found for what is produced. That is also an agricultural problem.

Continuing, he discussed the inclusion of the Bureau of Fisheries in this same conservation group in the Department of Agriculture: ⁵⁰

⁴⁹ *Hearings*, Joint Committee on Reorganization, *op. cit.*, p. 278. Note that this view was later adopted by President Hoover in his reorganization scheme, see p. 170.

⁵⁰ *Ibid.*, p. 279. See also interesting report on proposed transfer of Fish Commission to Department of Agriculture, Senate Report, 52nd Cong., 1st Sess., 1891-92. Serial No. 2914.

There is the question of fisheries which is in a department in which there are no biological scientists. Biological questions are involved there and very intimately related to the production of food on the land. Also questions involving the wise utilization of small lake and swamp areas; whether it is wise to drain such areas or to keep them for fish production.

The best administration of the public domain, of reclamation, of fisheries requires technical and scientific knowledge of agriculture and the biological sciences.

When questioned by the committee in regard to the inclusion of the National Park Service in this group, he replied: ⁵¹

I do not know whether I am prepared to say whether there will be economy, although there should be: so far as parks are concerned it would be practicable. There are exactly the same problems in the park forests as we deal with in the national forests, except the cutting of the timber. There are problems of protection from insect pests and plant diseases.

On the other hand, there is considerable objection from some sources to the transfer of the control of public lands from the Department of the Interior, especially on the part of the so-called public land states. The reaction of Senator Smoot of Utah to the proposal is seen in the following exchange of remarks: ⁵²

Secretary Wallace: “. . . I am arguing for putting the administration of the public domain in the Department of Agriculture.”

Senator Smoot: “Putting the whole public domain in the Department of Agriculture.”

Secretary Wallace: “Yes sir, in so far as it is grazing land.”

Senator Smoot: “That would require an act of Congress.”

Secretary Wallace: “Yes sir.”

⁵¹ *Hearings*, Joint Committee on Reorganization, *op. cit.*, p. 279.

⁵² *Ibid.*, p. 278.

Senator Smoot: "If you are trying to get a reorganization of the government departments, I suggest that we cannot get it through if we attempt to do a thing of that kind."

A number of other reorganization plans were brought before the joint committee by various individuals. The proposal of the Institute for Government Research provided for a Department of Public Domain and Public Works but, like similar plans, left Biological Survey and Fisheries out of the public domain group.⁵³ Dr. Barbour of Harvard University proposed a plan which centered conservation work in the Department of Agriculture.⁵⁴ This proposal and that of Dr. Willoughby's were among those considered at the hearings of the joint committee.

Little came of the report of the joint committee with the exception of its recommendation that the Bureau of Mines be transferred from Interior to Commerce Department, which was carried out in 1926 during President Coolidge's administration,⁵⁵ but which was moved back to Interior by President Roosevelt.⁵⁶

Executive Reorganization: There the reorganization movement rested until June 30, 1932 when, in the legislative appropriation act for the fiscal year 1933, Congress authorized the President to transfer by executive order the whole or part of any executive department to the jurisdiction and control of another executive department; to consolidate or redistribute functions vested in any executive department or

⁵³ Willoughby, W. F., *The Reorganization of the Administrative Branch of the National Government* (1922).

⁵⁴ *Hearings*, Joint Committee on Reorganization, *op. cit.*, p. 67.

⁵⁵ By executive order under authority of Act. of Feb. 14, 1903, 32 Stat. L. 825 as amended by Act of March 4, 1913, 37 Stat. L. 736. See opinion Attorney General on President's authority under that act, 34 Op. Att. Gen. 500 (1925).

⁵⁶ Executive Order No. 6611, Feb. 22, 1934.

in the executive agencies vested in it; and to designate and fix the name and functions of any consolidated activity or executive agency.⁵⁷

The President's powers were limited by the provision that such executive order should be transmitted to Congress and that it would not be effective until after the expiration of sixty calendar days from the date of such transmission unless Congress should sooner approve such orders. If either branch of Congress within such sixty-day period passed a resolution disapproving of such executive order it would not be effective.⁵⁸

Under authority of this act President Hoover in the last days of his administration did send to Congress a series of executive orders accompanied by a message of reorganization.⁵⁹ The major features of the proposed change was the setting up of a land utilization group in the Department of Agriculture under an assistant secretary. The Forest Service, the Biological Survey, the Bureau of Chemistry and Soils, and the General Land Office transferred from the Department of Interior would be in this group.

Hearings were held on the message of President Hoover by the House Committee on Expenditures in the Executive Departments at which time considerable opposition developed, especially in regard to the transfer of the General Land Office, led by organizations from the public land states. Taking this opposition as an excuse, the House of Representatives, controlled by a Democratic majority, passed a resolution disapproving of all the executive orders, and consequently none of them went into effect.

Convinced at last that no important reorganization could take place unless the President were given broader powers than he had been by the act of 1932, and perhaps, it might

⁵⁷ 47 Stat. L. 413.

⁵⁸ 47 Stat. L. 414.

⁵⁹ *Congressional Record*, 72nd Cong., 2nd Sess., pp. 227-48 (1933).

be added, willing to vest in President Roosevelt more authority than in President Hoover, Congress on March 3, 1933 passed another act for the reorganization of the executive departments.⁶⁰

Under this act the President was authorized to group, coordinate and consolidate executive and administrative agencies of the government according to major purposes. In carrying out the provisions of this act he was empowered to transfer, consolidate, or abolish the whole or part of any executive agency by executive order with the exception that he might not abolish any one of the ten executive departments.

All such executive orders must be submitted to Congress but would automatically go into effect at the expiration of sixty calendar days unless Congress should prior to that time pass an act to the contrary. As the President has a veto power over all the acts of Congress, this provision meant in effect that executive orders would go into effect unless opposed by at least two-thirds of each house, which, in view of the overwhelming Democratic majority, was very unlikely. The one important limitation upon the President's power was the provision that terminated the President's authority two years from the date of the passage of the act, that is, on March 3, 1935.

To date, a number of such executive orders have been issued by President Roosevelt but no general reorganization has been attempted. The only order affecting a conservation bureau was that of June 10, 1933 which created the Office of National Parks, Buildings, and Reservations.⁶¹ This new agency brought together the National Park Ser-

⁶⁰ 47 Stat. L. 1517.

⁶¹ Changed back to National Park Service by appropriation act for fiscal year 1935.

vice, and various other park units operating chiefly in the District of Columbia.⁶²

Later Reorganization Proposals: The Special Committee on Conservation of Wild Life Resources of the Senate held a series of hearings on reorganization of federal conservation activities during January 1933 prior to Mr. Roosevelt's taking office on March 4 of that year. At that time leaders of the wild life conservation movement were given an opportunity to present their views.⁶³ The consensus of opinion seemed to be that some better method of coordinating federal conservation activities must be found but there was a difference of opinion as to how that could be done.

One scheme advanced proposed to take the major conservation bureaus, the Biological Survey, Fisheries, the Forest, and National Park Services, out of the departmental structure altogether and set them up under an independent commission composed of the respective bureau chiefs responsible to the President directly.⁶⁴

Mr. Seth Gordon, representative of the American Game Association, at the hearings of the Senate Committee on Wild Life advocated,⁶⁵

. . . an independent commission of about five men, the members of which should be appointed for long terms and be adequately compensated. Then the administration of our resources

⁶² Executive Order No. 6166. Changes up to December 1933 can be found in Schmeckebier, L. F., "Organization of the Executive Branch," *American Political Science Review*, Dec., 1933; for later changes see *ibid.*, June and Dec., 1934.

⁶³ *Hearings on Consolidation of Federal Conservation Activities*, Special Committee on Conservation of Wild Life Resources, U. S. Senate, Jan. 12-13, 1933.

⁶⁴ *Hearings*, Special Committee, *ibid.*, p. 10.

⁶⁵ *Ibid.*, p. 10. An organization similar to this was recommended in report of President Committee on Wild Life of Restoration, 1934.

would not be subject to changing political fortunes, because the commission would be free to lay down broad policies and to direct the conservation affairs of the federal government in the same unbiased manner as the judges of the United States Supreme Court, members of the Interstate Commerce Commission and other life agencies discharge their duties.

However satisfactory such a program might be to the sportsmen whose attention is fixed on their own field, to the general public viewing the government structure as a whole, it is anathema. Already too many independent and semi-independent boards and commissions clutter up the administrative organization. While the existence outside the executive departments of semi-independent commissions exercising quasi-judicial or legislative functions is admittedly wise, the direction of conservative activities cannot be put in that class.

The question might well be raised whether the nation is ready to hand over control of federal conservation agencies "lock, stock, and barrel," in the words of Mr. Gordon, to the sportsmen's organizations. Should the American people abdicate control over wild-life resources in favor of the professional sportsman? This proposal means little else in view of the way in which the same system has worked out in the states.

The proposal had the support of many of the state conservation commissions,⁶⁶ no doubt because a similar organization is used in their own states. But conditions in the federal service are essentially different from those which exist in the states. The civil service system is better organized and politics do not, at least at the present day, enter into the administration of the federal conservation agencies to the extent which they do in the states. Even in the states in recent years attempts have been made to put

⁶⁶ *Hearings*, Senate Committee, *op. cit.*, p. 10.

this group back into the departmental structure and they have been in some instances successful. Witness the experiences of New York, Massachusetts, Pennsylvania, and Minnesota.

The establishment of a federal Department of Conservation has also been urged but to date has received little support in Congress. Representative McDuffie of Alabama introduced a bill providing for such a department in 1920.⁶⁷ It died in committee. A similar bill was introduced by Senator Hawes of Missouri and Representative Garrett of Tennessee in 1927 but with no better success. It was brought forward again at the next session of Congress, and again in 1931, but in neither case got by the committee stage.⁶⁸

Consolidation vs. Coordination: The reorganization plans considered above have included a wide variety of plans: an independent department of conservation, a conservation commission outside the department hierarchy, a grouping under an assistant secretary in the existing Department of Agriculture, in the Department of Interior, or in a new department of public domain and public works.

It is probable that the most sensible is the proposal to group the conservation bureaus under an assistant secretary in the Department of Interior. The conservationists generally have a fear of the Department of the Interior because of its bad record in the past. There have been a great many scandals in regard to the misuse of the public domain administered by that department. It is to be hoped that once the department shows its ability and willingness to administer the public domain honestly, this fear will gradually disappear.

The proposal to bring the conservation bureaus together as parts of a land utilization group in the Department of

⁶⁷ H. R. 14747.

⁶⁸ S. 306.

Agriculture is much less satisfactory. In such case all appropriations for conservation work would have to clear through the congressional sub-committees on agriculture. Inevitably the members of that committee, being interested chiefly in farming and cattle-raising, would demand that the activities of the bureaus for which they appropriate money be shown of benefit to agriculture.⁶⁹ The primary function of the conservation bureaus is to conserve the wild-life resources for the benefit of the whole nation, not merely for the farmers alone. The wholesale surrender of this valuable national resource to a particular interest group would in the long run be most unwise.

Consolidation brought about by a general reorganization is not the only possible method of bringing about closer relations between the conservation bureaus. Coordination of activities across present bureau and department lines holds out many advantages. Some steps in that direction have already been taken under the auspices of the Senate Committee on Wild Life Resources.

A bill⁷⁰ was introduced in the Senate with its approval providing for the coordination of effort between the federal conservation agencies. The Bureaus of the Biological Survey and Fisheries are authorized under the terms of the act:⁷¹

. . . to provide expert assistance to and to cooperate with federal, state, and other agencies in the rearing, stock and increasing the supply of game and fur-bearing animals and fish in combatting diseases and in developing a nation wide program of wild life conservation and rehabilitation.

⁶⁹ See House Committee on Appropriation; *Hearings on Agricultural Appropriations* (1934), pp. 638-88. Note question asked time after time: "Is this of benefit to agriculture?"

⁷⁰ Senate Bill No. 263, 73rd Cong., 1st Sess.; 48 Stat. L. 401.

⁷¹ *Ibid.*, Sect. 1.

The act further provides that whenever the Bureau of Reclamation or any other federal agency impounds water for any use,⁷²

. . . opportunity shall be given to the Bureau of Fisheries and the Bureau of Biological Survey to make such uses of the impounded water for fish culture stations and migratory birds resting and nesting areas as are not inconsistent with the primary use of the water and the constitutional rights of the states.

The Bureau of Biological Survey and the Bureau of Fisheries aided by the Office of Indian Affairs are authorized to jointly prepare plans for the conservation of wild-life resources on Indian reservations and, in cooperation with the National Park Service and Forest Service, plans for the development of wild-life resources on public domain.⁷³

Although this act did not provide for a permanent coordinating agency it should pave the way for such an agency. An inter-departmental committee to coordinate the conservation programs of the various federal bureaus, even without formal authority to enforce its decisions, would be most valuable. It is important, however, that this inter-departmental committee not be encumbered with regulatory work nor should it undertake independent research. It should be the thinking and planning agency using the results of the research already carried on by existing bureaus.⁷⁴

But at its best, coordination is a make-shift method, used because a more complete reorganization is not possible. In the field of conservation the ultimate aim must be a reorganization which will bring all the federal conservation agencies together in one group.

⁷² *Ibid.*, Sect. 3.

⁷³ *Ibid.*, Sect. 5.

⁷⁴ The Board of Surveys and Maps is an agency of this type. It has been fairly successful in coordinating federal map making.

CHAPTER VIII

THE ORGANIZATION AND FUNCTIONS OF THE STATE CONSERVATION DEPARTMENTS

It is much more important for the country member of the legislature to come back home at the end of the session with his name written on a bill changing the open season for brook trout, than it is for him to have it on an important bill relating to corporation finance. After all, there is nothing strange about this situation. Wild life regulation is and should be of vital concern to rural residents, for they are the ones who would suffer first from unwise conservation policies.

The membership of the legislature is drawn in large measure from the rural districts. Patiently these rural members sit through debates on municipal corporations, on business taxation, trade practices and labor disputes, half asleep, half awake, trying hard to understand what it is all about. When it comes to dog licenses, they arouse themselves momentarily. Finally, when the game and fish laws are reached, they wake up and get on their feet, for that is a topic about which the farmers gathered on the front steps of the country store are talking.

As a result of this domination of the state legislature by the rural constituencies, the game and fish laws tend to be favorable to the interests of that group. In most states, for example, licenses are not required of a resident landowner when hunting or fishing on his own property. Hunting or fishing after signs forbidding such trespass have been posted is sometimes made a criminal as well as civil offense.

These laws in many cases are entirely equitable but their existence does show the dominant influence of the rural districts in the state legislature.

*Organization of State Conservation Department:*¹ From earliest times the protection of fish and game from wasteful slaughter has been conceded one of the proper functions of the state government but not until comparatively recent years was it recognized that this end could most easily be attained through the establishment of a separate administrative unit especially charged with the conservation of wild life resources. It was a victory not easily won by the conservationists and even today in the economy program of some states the proposal has been made to abolish these special departments and delegate the duty of enforcing the game laws to the local peace authorities.²

Such a change would be decidedly a step backwards. Experience has shown that game laws left to the local peace authorities are notable chiefly for their lack of enforcement. The great number of laws which the local peace officer is charged with enforcing leaves him little time or inclination to interest himself in the enforcement of the game laws. In addition the work is decidedly unpopular with his constituents when it relates to themselves.

A far more important objection, however, is found in the fact that wild-life conservation means far more than merely the enforcement of laws regarding open seasons and bag limits. Modern conservation implies promotion as well as regulation, and both phases of the work require trained personnel if real results are to be obtained. Therefore a

¹ A digest of state fish and game laws prepared for the Office of the California Legislative Council by Mrs. Harriet Buhler has been found most useful in the discussion of the organization of state game and fish departments. (1934.)

² State of Washington in 1933.

separate administrative unit devoted especially to wild-life conservation, operating on a state-wide scale, is a vital necessity if a real conservation program is to be undertaken.

Combination of Game and Fish Activities: To the layman a single administrative unit combining both game and fish activities would, at first glance, seem most natural, for they are branches of the same major undertaking, wild-life conservation. In the inland states such a combination is the rule and a single administrative agency devoted to both game and fish activities has developed. But in a number of seacoast states the commercial fisheries have been kept separate from game and inland fisheries in an administrative organization all their own. If these separate administrative units are later coordinated as integrate parts of a larger department of conservation, combining all the conservation activities of the state, the original separation is not harmful, indeed is most logical. However, little can be said in favor of two entirely separate administrative agencies.

Maine is a good example of a state which has maintained two separate conservation bodies, one of which has jurisdiction over sea fisheries and the other over inland fisheries and game. So distinct were the interests of the supporters of the two units and so powerful the pressure they brought to bear, that even when the state administration was re-organized in 1929 the two bodies were left separate.

The Sea and Shore Fisheries Commission of Maine is a bi-partisan body, consisting of three members appointed by the governor with the advice and consent of the Council for a term of three years unless earlier removed by the governor for cause.³ Jurisdiction over inland fisheries and game is vested in a single commissioner appointed by the governor with the advice and consent of the Council but no provision

³ *Revised Statutes of Maine* (1930), chap. 50, sec. 2.

is made for his removal.⁴ Unfortunately these two units are not integrated in a larger department of conservation.

Rhode Island is not satisfied with two administrative bodies; it has five separate agencies charged with the regulation of various types of fish and game laws. The Commissioners of Birds, five in number, appointed by the governor with the consent of the Senate, have general charge of the regulation of bird and game laws.⁵ In addition to this commission, there are four other administrative units: the Commissioner of Inland Fisheries,⁶ the Commissioners of Shell Fisheries,⁷ the Harbor Commission,⁸ and the Fish Conservation Commission.⁹ This is an example of the extremes to which decentralization may be carried.¹⁰

The disadvantages of a multiple administrative system lie not so much in the duplication of effort, although that is important, as in the fact that a common conservation policy for the state as a whole is rendered more difficult. The greatest single need today in conservation is a coordination of effort toward a commonly agreed upon goal. Too often the work of one conservation agency counteracts the work of another. This is true among the Federal agencies and no less true in the state organization.¹¹ The easiest way to obtain a common policy is through a single administrative unit.

Internal Organization of Conservation Departments: The first great question confronting the administrators, once a

⁴ *Ibid.*, chap. 38, sec. 1.

⁵ *Rhode Island General Laws* (1923), chap. 137.

⁶ *Ibid.*, chap. 238.

⁷ *Ibid.*, chap. 230.

⁸ *Ibid.*, chap. 644.

⁹ *Rhode Island Public Laws* (1927), chap. 1046.

¹⁰ Delaware runs a close second with four separate agencies.

¹¹ See Leopold, Aldo, "Conservation Economics," *Journal of Forestry*, May, 1934.

single wild-life conservation unit had been agreed upon, was the type of internal organization in the department. The system early adopted in most states was to unify the work under a single officer generally known as the state game warden or game commissioner. It was customary for the governor, with the advice of the upper house of the legislature, to appoint the commissioner. (This method is still used in some of the states today.¹²

The disadvantage of this system lay in the fact that the office at once became the football of politics. Inefficient wardens were often appointed and able ones removed without cause. The conservationists then became convinced that efficiency in the game and fish department meant the removal of that department from politics.

Three different methods have been tried in various states with this end in view: the election of a state game warden for a relatively long term by direct vote of the people, the appointment by the governor of a bi-partisan board with overlapping terms, and the establishment of an integrated conservation department.

The elected warden system was tried in a number of instances and one state, Alabama, still operates under that plan, electing a commissioner for a term of six years by direct vote of the people.¹³ This system is predicated upon the old theory of increasing the evil complained of to effect a cure. Since politics was the cause of complaint, increase the dose and a cure will result. This plan puts the department up to its neck in politics and in fact has not resulted in a cure. It means lengthening an already overlong ballot and choice by the electorate who are not in a position to judge the relative fitness of candidates for the post.

¹² Idaho, Georgia, Missouri, North Dakota, South Carolina, Tennessee, Vermont and Utah.

¹³ *Code of Alabama*, sec. 413 (1923).

On the whole, the conservationists have rather favored the bi-partisan board with overlapping terms for its members. It has been tried at some time or other in practically every state in the union and still is in operation in a score of them.¹⁴

The board varies in size from three to seven members. It is customary to require that not more than a certain specified number on the board be of the same political party. In some cases there is the additional requirement that the members be chosen from different parts of the state.¹⁵

The chief factor intended to prevent politics, however, is the long staggered terms of the members, thus making it impossible for the governor to gain complete control of the board in one term. In states where the governor has a two-year term, there may be a board composed of five members appointed for five years, one member's term expiring each year. Thus a governor, in a single term of two years, would have the opportunity of appointing two members out of five on the board.¹⁶

The defect of the board system lies in the fact that when widely used throughout the state administration, it results in a lack of executive control. Each administrative unit runs its own affairs. There easily may be duplication of effort, waste, and inefficiency. Some of these natural re-

¹⁴ Arizona, Arkansas, Connecticut, Delaware, Iowa, Kansas, Kentucky, Mississippi, Montana, Nebraska, Nevada, New Jersey, New Mexico, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Texas, Wisconsin and Wyoming. In some states there are two or more boards instead of one.

¹⁵ Delaware, Board of Game and Fish Commissioners of three members, one from each county of the state and not more than two from the same political party. Revised Code (1915), chap. 13, sec. 225.

¹⁶ Note *ex officio* Florida State Board of Conservation, composed of Governor, Secretary of State, Attorney-General, Comptroller, State Treasurer, Superintendent of Public Instruction, and Commissioner of Agriculture. *Laws of 1933*, chap. 16178, sec. 735.

sults may be overcome by various coordinating devices but more often in actual practice the inherent defects of the independent board system are allowed to develop unchecked.

It is apparent, therefore, that there are two factors that must be taken into account in setting up an administrative unit to conserve wild life. First, it must not be allowed to become the football of politics and second, it must be made to fit into the administrative system as a whole. It is believed that a third type of administrative system, the conservation department, meets both of these requirements. It offers a solution to the problem of administrative organization, both from the standpoint of the political scientist who is chiefly interested in efficient administration of the state government as a whole, and from that of the conservationist whose aim is the efficient administration of wild life resources.

This plan properly integrates conservation activities in the departmental hierarchy of the whole state administration and by placing all conservation work undertaken by the state under one head should provide a coordinated program for them all in relation to one another. It proposes to vest control over all conservation activities, not only of wild life, but also of state forests, parks, and other state-owned lands, in a department of conservation headed by a single individual appointed by the governor either for a fixed term or to hold office at his pleasure. The latter proposal seems upon its face to defeat the aims of the conservationists by putting the department in politics, but in practice it has worked out very well and has resulted in the commissioner of conservation remaining in office for a longer period of time than he customarily would have done with a stated term.

All officials under the commissioner up to and including the directors of the various divisions should be appointed

and hold office under the merit system. The Division of Game and Fish would thus be headed by a professional conservationist, removable only for cause.

In New York state, where the system is in operation, the state constitution provides for a Department of Conservation among the twenty departments in the administrative system.¹⁷ The statutes further provide that it shall be headed by a Conservation Commissioner appointed by the Governor by and with the advice of the Senate,¹⁸ and who may be removed by the Governor whenever in his opinion the public interest so requires.¹⁹

There are five divisions making up the department: (1) Lands and Forests, (2) Fish and Game, (3) Water Power and Control, (4) Saratoga Springs Reservation, and (5) Parks. The head of each of these divisions is appointed by the Conservation Commissioner under competitive civil service regulations and may be removed only after hearing.²⁰

Minnesota has a somewhat similar organization in its Conservation Department but made the mistake of vesting in the Governor the power to appoint the head of the Fish and Game Division as well as his superior, the Conservation Commissioner.²¹ The result has been a tendency on the part of the Fish and Game Director to look upon the Governor, rather than the Conservation Commissioner, as his real chief.

A less satisfactory variation of this system is used in Indiana, Michigan, West Virginia, and North Carolina under which the conservation department, instead of being headed by a single commissioner responsible to the governor,

¹⁷ *New York Constitution*, art. v, sec. 2.

¹⁸ *New York Consolidated Laws* (Cahills), chap. 65, sec. 2 (1930).

¹⁹ *Ibid.*, chap. 56a, sec. 11.

²⁰ *Ibid.*, chap. 10, sec. 4.

²¹ *Minnesota Statutes* (Mason's), 1927, secs. 53-20.

is under the direction of a board appointed by him, which in turn appoints a commissioner to run the department. Michigan, for example, has a Conservation Commission made up of seven members appointed by the Governor and confirmed by the State Senate, who holds office for six years unless removed sooner by the Governor for cause and after hearing. The Director of Conservation, who is charged with the actual administration, is appointed by and holds office at the pleasure of the Commission.²²

The advantage of the integrated conservation department lies in the fact that broad questions of policy may be determined by the political administration which is, in turn, directly responsible to the voters, while these policies are carried out by non-political civil servants. Thus policy is determined, as it should be, by elected officials, while it is put in force by the permanent staff of non-political experts.

Type of Power Entrusted to Administrative Bodies: The powers entrusted to administrative bodies, notably to the commission or commissioner who has charge of game and fish conservation, whatever his exact title may be, vary greatly from state to state. In all the states, with but two exceptions,²³ he has the power to appoint wardens and other subordinate employees in the department, although in some states this power must be exercised in accordance with civil service rules. The administrative body in every case is authorized to issue licenses, although in those states where conservation work is divided among several administrative units, the licensing power is also divided.

Customarily the commission has the power to declare certain areas closed to hunting and fishing. A qualification,

²² *Compiled Laws of Michigan*, sec. 5654 (1929).

²³ Illinois and Tennessee are the only states where the agency in charge of fish and game does not have its warden system.

attached to this power in some states, requires that the permission of the landowner must be first secured. Over state-owned refuges, however, the commission usually has complete control.

Other powers exercised to a varying extent from state to state include the right to expend money obtained from hunting and fishing licenses,²⁴ the power to lengthen or shorten the open season,²⁵ to fix bag limits,²⁶ to establish propagation stations, to arbitrate claims for damage caused by protected animals, to lease state shellfish grounds, and to grade and brand seafood products.²⁷

The administration of the wild life resources of a state is essentially in a different category from the maintenance of the state highway system. It constitutes a trust from the past, to the present, for the future. The quantity and quality of these resources vary almost from day to day. If the trust is to be properly executed, the administrators must be left reasonably free to vary their regulations to meet rapidly changing conditions.

The question of length of season, bag limits, type of firearm, location of game preserves and fish hatcheries, should be left in the hands of the administrative agency. It does not make for good management to freeze into the statutes what should be merely details of administration. It is the

²⁴ Alabama, Arizona, Delaware, Florida, Iowa, Kansas, Louisiana, Maryland, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Jersey, New Mexico, Ohio, Oklahoma, Oregon, Rhode Island, South Dakota, Texas, Wisconsin and in a number of other states within certain limits fixed by statute.

²⁵ Arizona, Colorado, Georgia, Kansas, Montana, New Mexico, Oregon, Pennsylvania, Utah, Virginia, West Virginia, Wisconsin, and in other states within statutory limits.

²⁶ California, Connecticut, Delaware, Florida, Georgia, Indiana, Louisiana, Maryland, New Jersey, New York, North Carolina, Oregon, Rhode Island, South Carolina, Texas, Virginia.

²⁷ California.

duty of the legislature to sketch in broad outline the general policies under which the wild life resources are to be managed and to leave to the administrative agency, whether a single commissioner or commission of several members, the filling in of the details in accordance with the general policies outlined by the legislature.

Statutory Requirement as to Procedure for Exercise of Rule-Making Power: The rules most commonly made by conservation agencies are those regulating the length of the open season on game or fish, and those establishing game preserves or closing certain areas to fishing. The initiation of such rules in about half the states depends upon petition from the residents in the area affected. In the remaining states the administrative agency may initiate action of its own accord.

Before a rule goes into effect a public hearing is required in about one-third of the states.²⁸ In the remainder of the states publication in the newspapers is taken to constitute *due notice*. Appeal, of course, from such rules lies with the courts, whether the statutes expressly provide for it, as they do in some states, or not.

Financing the Conservation Department: The conservationists, in attempting to divorce the department from politics, at an early date urged that a separate fund be established in the state treasury made up of license fees and that this fund be appropriated for the sole use of the conservation department. It was argued that sportsmen paid these fees and therefore they should be used solely for the benefit of sportsmen in increasing the stock of wild game and fish.

²⁸ Connecticut, Georgia, Maine, Minnesota, Montana, Nebraska, New Hampshire, New York, North Carolina, Oregon, South Dakota, Virginia, West Virginia, Wisconsin.

To date twenty-five states²⁹ have adopted this system of financing.

However plausible this reasoning may seem, in fact the separate fund system is fundamentally unsound. In the first place, conservation is not a matter wholly the concern of sportsmen. The citizens at large in the state own the wild game found within its borders and certainly the interests of the whole should be paramount to those of any one class. The charge collected, that is the *license fee*, by its very name implies that it is paid to allow the individual to do something which ordinarily he would not be allowed to do.

Under a separate fund system the conservation department may be existing in comparative luxury while other departments in the state are struggling along on starvation budgets. The expenditures of the state departments should be upon the basis of needs, not income. If the needs of the conservation department are as great as those of other spending services, it has nothing to fear; if they are not, then the separate fund plan gives it an undue advantage which should be abolished. All incoming and outgoing revenue should pass through a single general fund, apportioned each year among the various spending agencies by the general budget agency.

The separate fund system tends to result in the department either piling up a surplus when it continuously spends less than its income, or it tends to promote wasteful and unnecessary spending in those states where there is a provision that unexpended amounts remaining in the fund at the end of the year be returned to the general fund. In-

²⁹ Wyoming, Vermont, Washington, West Virginia, Utah, Oklahoma, North Dakota, New Mexico, Nevada, New Hampshire, Mississippi, Michigan, Louisiana, Kentucky, Iowa, Indiana, Illinois, Colorado, Arkansas, Arizona, Texas, Oregon, Minnesota, Maryland and Maine.

deed the administration of a large surplus is a difficult matter in itself and its mere existence is a constant temptation to the dishonest administrator.

Where a single game and fish fund has been established the expenditures of the department are commonly limited to the income from that fund. However, a few states do appropriate additional amounts. Both Virginia and Delaware make substantial appropriations from the sale of dog licenses to the Game and Fish fund. West Virginia makes a small but definite appropriation each year to the fund.

At the opposite side of the picture come some sixteen states which expect the receipts from hunting and fishing licenses not only to pay for the upkeep of the department but to yield a revenue to be used for other purposes more or less closely related to wild-life conservation. South Dakota,³⁰ Nebraska,³¹ and Missouri³² set aside varying amounts to be used for the upkeep of state parks. South Carolina appropriates 9/20 of the game and fish fund income for the aid of schools,³³ while Georgia³⁴ appropriates all that remains in the fund at the end of each fiscal year for that purpose. Idaho³⁵ sets aside a percentage to be used for the control of predatory animals, North Carolina³⁶ for the prevention of forest fires, Kansas³⁷ and Alabama³⁸ for the general fund should there be any remaining at the end of the fiscal year; and Tennessee, Penn-

³⁰ *South Dakota, Compiled Laws* (1929), sec. 10430-18.

³¹ *Nebraska Compiled Statutes* (1929), sec. 37-206.

³² *Wisconsin Statutes Annotated*, p. 4074, sec. 8220.

³³ *South Carolina Code* (1932), sec. 1758.

³⁴ *Georgia Code* (Michie, 1926), sec. 2158.

³⁵ *Idaho Code* (1932), sec. 35-117.

³⁶ *North Carolina Code* (1931), sec. 2141.

³⁷ *Kansas Supplement Revised Statutes* (1930), sec. 74-3304.

³⁸ *Alabama Laws of 1932*, no. 62.

sylvania, Ohio, New Jersey, Missouri and California set aside a definite percentage of the game fund that may be used only for the propagation of game and maintenance of fish hatcheries.

A number of states³⁹ have set up several different funds to be devoted to various phases of wild-life conservation. The common division is to place the revenue from fishing licenses in a fishing fund to be used for the improvement of fishing and the income from hunting licenses in a hunting fund to be used to improve hunting. Five of the states, at least, have an additional fund containing the revenue from oyster and commercial fishing which is used to promote those industries.

The principle that the sportsmen who pay the license fees should have the income spent to aid them, advanced to justify the fund system, can be used with equal force to justify a multiple fund system. Many sportsmen who hunt do not fish, and *vice versa*. Under the multiple fund system the fisherman has the satisfaction of knowing that the fees he has paid will be used solely for the improvement of fishing and not upon game preserves in which he has little interest. The disadvantage of this system lies in the fact that the broad aim of wild-life conservation as a whole may be lost sight of and a policy of piecemeal replacement take its place.

The License System: The states early required hunters and fishermen to obtain licenses for which a fee was charged, chiefly because the license system offered a source of revenue. In more recent times it has been discovered that the license system also is useful as a method of exercising control over the taking of wild animals in those states where license holders are required to make a report at the end of each year stating the number of animals killed.

³⁹ Texas, Pennsylvania, Oregon, North Carolina, Minnesota, Maine, Georgia, and Alabama.

The fee charged rarely, if ever, covers the cost of replacing the game taken.⁴⁰ Nor is it possible to raise the fees until they do cover the replacement cost because of the difficulty of enforcing the payment of high fees. At the same time some thought should be given to grading the fees according to the relative scarcity of the game.

Uniform non-resident hunting and fishing license fees for this reason are extremely difficult to fix as the value of hunting and fishing must vary from state to state. At the best, uniform non-resident fees among states upon a regional basis is the most that should be attempted.

The amount of the license fee varies from state to state. Alabama and Wisconsin require no resident fishing license and therefore collect no license fees from residents for the privilege of fishing. In general, fees vary from sixty-five cents for a resident fishing license in Maine⁴¹ to the high point of \$250 for certain types of non-resident big game licenses in Oklahoma.⁴² The exceptions most common are in favor of minors, women, and landowners.

Women are given other special privileges. Connecticut set aside a stretch of state-leased water near the geographical center of the state for the exclusive use of women anglers. Said the Commissioner:⁴³

It is hoped that this action will strike a responsive chord among the women who love the outdoors, and that the first experiment will lead to a very general acceptance of fly fishing as a great sport for women.

⁴⁰ See discussion on this point, *Proceedings, International Association of Game, Fish and Conservation Commissioners* (1932), p. 43.

⁴¹ *Maine Revised Statutes*, chap. 38, sec. 19.

⁴² *Oklahoma Statutes* (1931), sec. 4806-4874.

⁴³ *Report of Connecticut State Board of Fisheries and Game*, p. 15 (1930).

Method of Issuing Licenses: There is a wide variation between states on the method of issuing licenses. In more than half the states, the county, town, or city clerks are allowed to issue licenses in return for a portion of the fee collected. In practically all the states, the chief game protection agency, be it a single commissioner or a board, and its special agents are authorized to issue licenses. But in other states the county treasurer, the county auditor, the clerk of the county court, the judge of probate, justices of the peace, or the parish tax collector are the license-issuing agents.

The chief aim should be to place licenses within easy reach of all who wish to obtain them. Whether the county clerk, the clerk of the court, or the justice of the peace is the proper issuing officer depends upon local conditions. In general, however, judicial officers should not be asked to do this kind of work. It is better to leave the issuing of licenses to the conservation department, county clerks, and special agents appointed by the conservation commissioner. Vacation resorts, sporting goods stores, and others are only too anxious to act as agents of the commissioner for this purpose in return for a small percentage of the fee. They are in a position to reach the individuals most likely to want licenses, and if reasonable check is made of their work, the system is satisfactory to all concerned.

Warden System: New York state has one of the largest and best organized warden systems. The Bureau of Law Enforcement headed by a chief inspector is part of the Division of Fish and Game which is itself part of the Department of Conservation. The state is divided into districts each under the supervision of an inspector who directs the work of the game protectors in his district.⁴⁴ Except

⁴⁴ *21st Annual Report*, New York State Conservation Department (1931), p. 210.

for variations in the number of wardens and in the exact title, this is the system generally used in most states.

Minnesota also ranks among the states with a large force, having some twenty districts each headed by a district chief warden with a total of one hundred and twenty wardens for the entire state. Within the last few years two inspectors were appointed whose duty it is to tour the state, reviewing the work done in each district.

The tendency in general seems to be toward larger warden forces. Arkansas prior to 1927 had a force of only eight to cover the entire state. In that year the legislature approved an increase in the force of sixteen additional wardens.⁴⁵ In Alabama prior to 1922 there were no full-time salaried wardens but since that time a force of 33 men has been built up and the commissioner recently has requested still further increases in the size of the force.⁴⁶ All of the states show this same trend toward a larger full-time warden system.

Unfortunately the statutes in some states hamper the work of the Department by setting forth details which should have been left to the discretion of the administrative chief. A provision common in the south, for example, is to provide for one warden to each county. The inefficiency of the system resulting is clearly evident inasmuch as one warden may be overburdened with work while another may have little to do.

Alabama's statutes limit the number of employees at headquarters to two full-time clerks yet the press of work has necessitated hiring four extra assistants on a temporary basis. Such minute detail should not be attempted by the legislature, for details once fixed by statute are difficult to change.

⁴⁵ *The Arkansas Conservationist*, Dec., 1928, p. 10.

⁴⁶ *Third Quadrennial Report*, p. 90 (1930).

Appointment of Wardens: What type of individual makes the best game warden? What qualities are to be sought in the candidates who apply for positions with the department? What should be demanded of a candidate at the time of entrance into the service and what can best be taught him after entrance? These are vital points which should be determined before any attempt is made to set up a scientific personnel system.

One of the most common fallacies is that the higher the educational standard required for admission to the service, the more efficient the warden force will be. Certain minimum educational standards are necessary, yet the limits are soon reached. One of the outstanding authorities on police administration has said that a highly educated individual would make a very poor police patrolman because he would observe too much. In the opinion of this authority a patrolman should be trained to concentrate his attention on a limited number of facts. A highly intelligent individual is likely to allow his attention to wander off upon other problems. The game warden, like the patrolman, should be trained to watch for certain definite facts. For this reason if for no other the educational standard required for entrance into the service should be kept relatively low.

There is another aspect of this subject: men entering the service with a great deal of education will not be content to remain ordinary wardens for any length of time. They will expect rapid promotion, and in its absence will leave the service. Unfortunately, as most state warden forces are small in numbers, the available promotions will be limited. That means, that should the state attempt to recruit its warden force only, let us say, from among the college graduates, the advantages that it can offer as a life career are so limited that few would remain long in the service. As a warden increases in value with his years of service, at least

up to a certain point, personnel should be recruited who are likely to remain in the service, and only a limited number of the better educated men, who can be assured of reasonably rapid promotion, should be encouraged to enter it.

The qualities most desired in a warden are a practical knowledge of woodcraft, physical endurance, courage, and honesty. Special training in elementary biology can be given after entrance to the service. Physical characteristics can be determined by age, and by medical examination; honesty and courage, to some extent, by records of past experience.

The examination system for warden appointments seems to have originated in Wisconsin some twenty years ago. The State Civil Service Examiner aided by Dr. Palmer of the United States Biological Survey conducted the first examinations which were in the nature of the theoretical and practical tests of the candidate's knowledge of wild life.

To-day, Wisconsin tests the candidate's knowledge of the game and fish laws by an objective written examination. In addition the candidate is given a recognition test to determine his ability to recognize birds, fish, and other wild animals, and an oral test under the direction of the Director of Personnel upon his general knowledge and character. Each test carries a weight of one-third.

The Minnesota examination is fairly typical of those given in the mid-west. To qualify for the position of game warden, the applicant must be: an American citizen and a resident of the state, not less than 25 nor more than 50 years of age, healthy and physically fit, have an eighth grade education or its equivalent and pass a written examination with a grade of at least 60 percent.

The written examination consists of simple questions to determine the applicant's knowledge of wild life, of the game and fish laws, civil government, mathematics, and English. In determining the final rating of the applicant

the following percentages apply: A rating of 100 in the written examination counts 40 points, a rating of 100 in character and personality counts 30 points, a rating of 100 in practical training and experience counts 30 points. The candidate must gain a mark of at least 70 points. It hardly needs be pointed out that the factors which rest upon the individual judgment of the examining officer far outweigh the fixed points obtained in the written examination.

Ohio, Massachusetts, California, Maine and New York require practically the same type of examination as outlined above. New York, however, has especially rigid physical standards. The candidate must be between the ages of 21 and 35, not less than five feet nine inches tall without shoes, weigh not less than 159 pounds, and have excellent hearing and eyesight.

Some of the states have added various other requirements, the most common of which is residence. New Jersey, for example, requires applicants to be residents of the state and the district in which the examination is taken so as to insure knowledge of the local streams, game covers, and breeding places. Maryland has a somewhat similar requirement in regard to residence.

Practically all the state game codes make provision for the hiring of additional men on a per-diem basis to aid the regular force during the seasonal rush. It is usually required that these men take the regular warden's examination each year or a special and less difficult examination if they wish to remain on the eligible list.

In addition it has been the custom to provide for special wardens to serve without compensation. As a general rule it cannot be said that this auxiliary force has proved very satisfactory. The records of the New York department showed 780 such special game protectors on the rolls, but only 36 of them reported the prosecution of a violation of

a game or fish law during 1931. These 36 however prosecuted 251 cases. Under the circumstances the department deemed it advisable to terminate all these commissions and to adopt the new policy of issuing commissions annually to a small number who by reason of employment in related work or zeal for the cause are able to give material assistance to law enforcement.⁴⁷ Were this example followed by other state departments the efficiency of the warden force would be greatly increased.⁴⁸

Fee System of Compensation: The fee system is still used in a number of states as a method of compensating the officer making the arrest,⁴⁹ whose fee consists either of the costs or of part of the fine itself. The custom of allowing costs either to the warden or to the justice before whom the case is tried, only in case of conviction cannot be too strongly condemned. Two states, for instance, Alabama and Delaware, definitely provide that the warden making the arrest receives costs only in case of conviction.⁵⁰

The fee system in any form as a means of providing compensation for wardens or justices should be abolished. Whether the hope of obtaining a fee does influence the judge in his decision, or the warden in making the arrest, is immaterial, for undoubtedly the person involved believes it does, and pays his fine laboring under the feeling of injustice.

⁴⁷ *21st Annual Report*, New York Conservation Department (1931), p. 216.

⁴⁸ See also paper expressing same view by George R. Hogarth, Director, Michigan Department of Conservation, on "Volunteer Game Wardens," *Proceedings International Association Game and Fish Commissioners* (1932), p. 16.

⁴⁹ Arkansas, Alabama, Indiana, Kansas, and Delaware.

⁵⁰ *Code of Alabama*, sec. 4209 (1923); *Revised Code of Delaware*, sec. 2403 (1915).

On the other hand, there are states which allow wardens to collect costs from the defendant in case of conviction but require that all such fees be remitted to the state treasurer to be placed in the game fund.⁵¹ This system is not quite as bad but still smacks of injustice and should be abolished. New York goes a step further and the Department itself pays the costs of court that arise out of the trial of conservation cases.⁵²

Propagation Activities: As conceived by the conservationists, the second great function of a state department of game and fish is the building up of new stock either by setting aside protected areas as natural breeding grounds or by artificial breeding in fish hatcheries and on game farms. With a few exceptions, all of the states at the present time operate one or more fish hatcheries supplementing the United States hatcheries.⁵³ The larger departments are equipped with a hatchery system which includes not only a series of main hatcheries but also field stations attached to each.

The state of New York, for example, maintains a chain of eleven hatcheries and sixteen field stations besides certain temporary seasonal stations. Administratively speaking, this work is handled by a separate division in the department known as the Division of Fish Culture.

In those states having large areas of flood waters which overflow during certain seasons of the year, the salvage work of the fish left stranded in the sloughs during the dry season is an important work of this department. The conditions in Minnesota are a good example. There the spring freshets on the Mississippi below St. Paul flood considerable areas of bottom lands on both sides of the river. As the floods recede, large numbers of fish are stranded in the

⁵¹ Colorado, Georgia, Kentucky, Missouri and Oklahoma.

⁵² *21st Annual Report, op. cit.*, p. 216.

⁵³ For discussion of the United States fish hatcheries, see chap v.

sloughs cut off from the river. In due time, with the coming of the summer, these areas dry up and the fish, unable to return to the river, are killed. Salvage crews of the Division of Fish Culture in the Department of Game and Fish work these sloughs in the late spring and early summer with nets, returning the fish taken to the main river or to nearby lakes in need of restocking.⁵⁴

The setting aside of natural breeding areas for wild game has become a widespread custom among the states. New York has eleven game and fish refuges, five of which are located within forest preserves. The scientific administration of such areas is a new phase of the development of a state conservation policy, the need of which has become apparent only in recent years.⁵⁵

A still more recent development has been the establishment of state game farms chiefly for the breeding of game birds. In many states such farms are administered by a division of the fish and game department but in others they are privately owned and managed, the state merely buying a certain amount of their stock each year and releasing it.⁵⁶

The rapid development within recent years of the fur farming industry has brought forward other problems, chiefly of a financial nature. Presumably a state ought to encourage fur farming, as it increases the total wild life within the state and tends to relieve the pressure upon fur animals in the wild. This much is certain: the American demand for furs far exceeds the domestic supply. For this reason, if for no other, domestication of fur-bearing animals should be encouraged.

⁵⁴ For details of this work see reports of Minnesota Game and Fish Department.

⁵⁵ See p. 102 for report of Biological Survey management policy.

⁵⁶ *Report of the State Board of Fisheries and Game, Conn. (1932)*, p. 23.

However, two difficulties have arisen; one concerns the lack of scientific knowledge regarding how wild animals react to captivity. As a result some phases of the industry have hardly passed the experimental stage. On the other hand, certain promotional practices used by some fur farmers have brought the industry into disrepute. The so-called "unit plan" under which fur animals were sold to the public and then boarded on the fur farm in return for a percentage of the offspring, was often an outright fraud. In some cases non-existent animals were sold; in others the same animals were sold to several individuals. As a result the losses of the investing public in this type of enterprise have reached considerable proportions.⁵⁷

Scientific Research: Biological investigations have received the least attention of the state departments. New York has such a division which is at present conducting a survey of the fishing waters of the state. Few states can afford to keep trained specialists on the staff charged with the duty of carrying on research. The possible results seem too remote while the expense is immediate. The best policy for the average state to pursue in this regard is to cooperate closely with the United States Bureau of the Biological Survey and the Bureau of Fisheries. Both of those organizations have built up staffs of scientific experts in almost all fields of biological and ichthyological research. The advice of these scientists may in many instances be obtained by the state conservation departments without charge. Should their services be required for any great length of time, however, the state department is expected to meet the expenses involved.⁵⁸

⁵⁷ See Ashbrook, Frank, "Fur Farming in Relation to State Game Departments," *Proceedings International Association of Game and Fish Commissioners* (1929), p. 106.

⁵⁸ For details see p. 94 and p. 129 of chapters v and vi.

Public Shooting Grounds: In the more populous states the problem of finding land upon which the sportsman may hunt and fish has become a serious one. Many states forbid hunting at all times within the game refuges, and many of the same states make it a misdemeanor to hunt over privately owned property which has been "posted". As a result the sportsman is left to use public lands not included in the game refuge system. In well-settled states there is comparatively little of that type of land left.

Consequently in recent years the movement looking toward the establishment of public shooting grounds has gained headway, especially in the eastern states. According to the plan most widely advocated, the state acquires, by lease or purchase, areas adjoining an established game refuge which is open to hunting and fishing at fixed times, subject to the general control of the state conservation department.

Pennsylvania has gone the furthest in this direction. Public shooting grounds owned by the state have been set up surrounding game refuges and separated from the refuge by a plainly marked single strand fence. During the open season the shooting grounds may be hunted, with the result that the game is gradually driven back into the refuge but not exterminated.

About a third of the states at the present time have entered upon a policy of gradually acquiring public shooting grounds. In the case of New Jersey, a definite fund made up of a part of the license fees has been set aside for this purpose.⁵⁹ Should the proposed Roosevelt agricultural policy of retiring submarginal land from cultivation be carried out, no doubt large areas could be turned over to the states to administer as public shooting grounds.

Functions of State Conservation Departments: The major functions of a state conservation department can be sum-

⁵⁹ *New Jersey Laws of 1932*, chap. 214.

marized in one phrase — conservation of the wild life resources of the state. And conservation in its fullest sense means as wide use by the present generation as is compatible with maintaining a supply for future generations. Thus the function of the department should be the positive one of building up reserves and not merely the negative saving for the future.

This involves the maintenance of an adequate system of game refuges and fish hatcheries. It means a conservation policy which will encourage the private fur breeder, side by side with the establishment and enforcement of scientific regulatory laws, fixing closed seasons and bag limits.

A state game and fish program to be successful cannot stand alone. It must be founded upon the principle of understanding and cooperation with the state land, forest, and recreation policies. Not only must it form a part of the general state conservation program but it must be coordinated with conservation policies of the national government. Therefore, at the present time, the watchwords of a state conservation department must be "cooperation and coordination."

CHAPTER IX

PROBLEMS OF GAME LAW ENFORCEMENT

LAWs, it is said, are made to be broken. Unfortunately, this phase only too truly represents the attitude of the average American citizen toward the law. Earnestly he will support movements designed to place new laws covering a multitude of subjects upon the statute books, but once they have been enacted he will show little interest in their enforcement. Game laws are no different from other laws. Conservation groups generally will labor diligently to place strict game laws on the statute books but thereafter pay slight attention to their enforcement.

Public Opinion Must Support Enforcement: As a result, the most difficult problem facing conservation enforcement officials at the present time is caused by the lack of public support of strict enforcement of the game laws. The experience of the American people with the National Prohibition Law has shown that the enforcement of a law not approved by public opinion is extremely difficult, if not altogether impossible.

Even today a good-sized section of the American people is prone to regard the game laws as unjust interference with its natural rights. True, market hunting is not approved by public opinion, but the prosecution of the amateur sportsman is as likely to evoke sympathy for the defendant as not.

In many ways the attitude of the public has not changed much since the days of the famous outlaw-hero Robin Hood, the cause of whose outlawry is told in the following passage.

Then Robin Rood took his good yew bow in his hand, and placing the tip at his instep, he strung it right deftly; then he nocked a broad clothyard arrow and raising the bow, drew the gray goose-feather to his ear; the next moment the bow-string rang and the arrow sped down the glade as a sparrowhawk skims in a northern wind. High leaped the noblest hart of all the herd, only to fall dead, reddening the green path with his heart's blood.

"Ha," cried Robin, "how likest thou that shot, good fellow? I wot the wager is mine, an it were three hundred pounds."

Then all the foresters were filled with rage, and he who had spoken the first and lost the wager was more angry than all.

"Nay," cried he, "the wager is none of thine, and get thee gone, straightway, or, by all the saints of heaven, i'll baste thy sides until thou wilt never be able to walk again."

"Knowest thou not," said another, "that thou hast killed the King's deer, and, by all the laws of our gracious lord and sovereign, King Harry, thine ears should be shaven close to thy head?"

Never a word said Robin but he looked at the foresters with a grim face; then, turning on his heel, strode away from them down the forest glade. But his heart was bitterly angry, for his blood was hot and youthful and prone to boil.

Robin Hood lay hidden in Sherwood Forest for one year, and in that time gathered-around him many others like himself, cast out from other folk for this cause or that. Some had shot deer in hungry winter time, when they could get no other food, and had been seen in the act by foresters but had escaped, thus saving their ears. Some had been turned out of their inheritance that their farms might be added to the King's land in Sherwood Forest. All, for one cause or another, had come to Sherwood to *escape wrong and oppression*.

The root of the problem now, as in Robin Hood's time, lies in the fact that breaking the game law is not regarded as morally wrong except in unusual circumstances. Killing

deer out of season, like getting drunk in public, is frowned upon by good citizens but is not taken very seriously. On the other hand, commercial hunting like commercial vice arouses the ire of the whole community and offenders are likely to be strictly punished.

Game law enforcement authorities, whether they be federal or state, have the greatest difficulty in dealing with offences which, if taken singly, are not important but when considered in mass constitute a real menace to wild life. Hunting after dark, killing a duck or a goose or a single deer out of season, catching a few fish during closed season, when many times multiplied are a serious threat to wild life. The district attorney whose duty it is to prosecute these offenses and the judge before whom they are tried are too prone to see only the case before them and to belittle the seriousness of the charge. This problem more than any other at the present moment is the greatest obstacle in the way of strict game-law enforcement.

Educating Public Opinion: The solution of the problem lies in the education of public opinion along wild life conservation lines. An education program may not bring immediate results but until public opinion gives its unqualified support, game laws in themselves remain notable for their lack of enforcement.

That progress has been made along educational lines no one will dispute but much remains to be done. That there is any interest in conservation at all, that public opinion disapproves of market hunting, is in large measure due to the educational work of the various conservation agencies such as the Izaak Walton League, the American Nature Association, the American Game Association, the Audubon Societies and the sterling work of such individual conservationists as Dr. William Hornaday, Jack Miner and a dozen others.

Hand in hand with a program of education should go a movement for reform of the law-enforcement machinery, both Federal and State. These reforms in the administration of justice are not in the most part peculiarly applicable to game-law enforcement but are reforms needed from the viewpoint of all law enforcement.

Care in Drafting Conservation Laws: In addition, care must be taken in the drafting of game and fish laws not to get ahead of public opinion and to keep the laws scientifically sound. However enthusiastic conservation groups may be, or however justified in believing that wild life can be saved only by radically reduced bag limits and shorter open seasons, care should be taken not to drive ahead of public opinion. The difficulty of enforcing limits which the average hunter feels unjustified will lose even the support of individuals who normally are opposed to waste of wild life resources.¹

Care should also be taken that the laws relating to open and closed seasons and bag limits be based upon the best scientific information available. Too often state legislatures in drafting the laws, act upon hasty conclusions based as much upon guesswork as anything else. The legislative process is such that facts are not always available to the legislators, which is another argument in favor of delegating to the administrative authorities the power to fix open and closed seasons and bag limits.

Sphere of Federal Game Laws: The protection of wild life in most of its forms in the United States comes chiefly within the sphere of the states. The regulatory activities of the Federal government are limited to conservation of

¹ See interesting paper on this subject by Griswold, B. Howell, "Sump-tuary Laws and Wildfowl Conservation," *Proceedings, International Association of Game, Fish, and Conservation Commissions* (1932), p. 29.

natural resources on national domain and to wild life moving in interstate commerce.

Under the heading of national domain come laws passed for protection of wild life in the national parks, bird refuges and in the territories; under the second group come the Lacy Act of 1900 as amended in 1909,² the Migratory Bird Treaty Act of 1918³ and the Black Bass Act of 1930.⁴ It will be noted that only the enforcement of the Migratory Bird Treaty Act and the Black Bass Act are truly regulatory activities, the protection of wild life on federal reservations has more to do with the administration of public domain than regulation in the true sense. This leaves to the states control over all types of wild animals outside of federal reservations, other than migratory birds and black bass.

The enforcement of the federal wild life conservation laws rest chiefly in the hands of the Division of Game Management in the United States Biological Survey and in the Division of Law Enforcement in the United States Bureau of Fisheries. The combined warden force at the disposal of both bureaus together totals less than thirty men.

Federal Enforcement Machinery: The federal enforcement machinery is set in motion with the arrest by a United States game protector of a violator of the federal game laws. The accused is taken before the nearest United States commissioner, charged with the offense and bound over for trial. In cases where the accused is well known to the arresting officer, the United States commissioner remote from the scene, or the offence a minor one, the accused may be released upon his promise to appear in court when summoned, his guns being held by the protector as evidence in the meanwhile.

² 31 Stat. L. 1039.

³ 40 Stat. L. 755.

⁴ 35 Stat. L. 1137.

The protector and whenever possible at least one witness, draw up affidavits setting forth the facts in detail. These are sent to the Division of Game Management⁵ at the Biological Survey in Washington. The officers of the Survey go over the facts as presented in the affidavits and if they in truth show a violation of the federal laws, submit the records to the solicitor of the Department of Agriculture. He again reviews the facts and if in his opinion legal action can be successfully undertaken, prepares a suggested *information* which is forwarded to the Department of Justice with the request that the Attorney-General instruct the United States attorney for the district in which the misdemeanor occurred to take action against the accused.

Upon receiving his instructions from the Department of Justice, the United States district attorney confers with the United States game protector who made the arrest and gets his case in shape. In due course the case is called in the federal district court and the district attorney appears for the United States with the game protector as chief witness.⁶

Federal Enforcement in Practice: This is the procedure that should follow the arrest of a violator of one of the federal game laws; now let us see what actually does happen. Here is a case taken from the files of the Biological Survey.

Not so many years ago a United States game protector arrested four men in Siskiyou, California, on Trule Lake,

⁵ The same procedure would be used if it were a violation of the Black Bass Law except that the arrest would be made by a United States Fish Warden and the prosecution by the Bureau of Fisheries in the Commerce Department, see p. 139.

⁶ In about 57% of the federal cases trial is upon indictment by grand jury rather than information. A great majority of the defendants plead guilty when summoned in the district court and of the remainder all but about 2% waive jury trial.

charged with shooting at ducks after sundown, contrary to the Migratory Bird Treaty Act. According to the protector the shooting occurred about forty minutes after sunset, when it had become so dark that the flashes of gunfire could be plainly seen, although no ducks had actually been killed. The protector according to custom allowed the defendants to go upon their promise to appear in court when summoned, but held their guns as evidence.

The accused, all of whom were well known professional men from a neighboring state, boasted at the time of their arrest that they had sufficient influence in the right quarters to escape prosecution. Immediately upon their return home they secured an attorney who wrote to the United States Senator from their home state, a personal friend of his, asking that the Senator use his influence with the Department of Agriculture to have the charge dropped. The attorney pointed out the disgrace prosecution would bring upon the defendants, their well known good character, and pleaded that they be excused this time.

The Senator in question forwarded the letter to the Chief of the Biological Survey together with a request that the charges be dropped if possible. The Chief of the Survey, who at the time happened to be Paul Reddington, replied that he believed the Government had a good case and therefore he could see no reason why the case should be dropped.

In the meanwhile pressure was brought with greater success upon the United States district attorney for the district in which the arrest had been made. He wrote to Washington that the violation was a petty one and in his opinion should be dropped, stating that

. . . a number of Federal Judges have taken drastic action to prohibit wholesale and what they deem, unjustifiable use of the process of the Federal Court with the resultant congestion of the dockets,—Judge Hutchison of Texas, Judge Bourquin

of Montana, Judge Kerigan and Judge St. Sure of California, have each in turn when information of a similar character have been presented to them for permission to file, refused leave of the United States Attorneys so to do.

In support of his contention that after all the violation was a petty one, he went on to point out that when a case of this kind was taken to court,

The Judge imposes sentence upon the *criminal*, generally a fine of \$1, sometimes \$10, but never more than \$25. The recoil upon those in the courtroom who witness it is either indignation or amusement or both. Indignation because a respected citizen has been so greatly discommoded and humiliated for an infraction which the government, through the Judges, pronounces trivial.

He pointed out that the defendants lived about three hundred miles from the court in which they would be tried and that the costs of the United States marshal's going to arrest them would be more than \$70. Apparently he made no attempt to summon them into court without sending the marshal to make the arrest.

The Solicitor for the Department of Agriculture, upon instructions from the Biological Survey replied, (1) it was necessary for the birds to have a feeding period undisturbed by hunters, (2) the hunting in question did occur after sunset, (3) the law had been broken, (4) petty though the point might seem it was considered important enough to be included in the Migratory Bird Treaty between Britain and the United States, (5) true this single offence taken alone was not so important but its successful prosecution would stop others and that was important, and finally (6) the fact that the defendants were prominent men with considerable political influence in their vicinity and were still punished for breaking the law would have a tremendous effect in preventing future violations.

Notwithstanding these arguments the United States district attorney later informed the Department of Justice that he would not push the prosecution and several months later allowed the case to drop. An interesting bit of side-play took the form of an extremely indignant letter from the defendants to the United States protector who made the arrest demanding that their guns be returned under threat of immediate action in the courts.

This case brings to light a number of interesting problems. It is not the fact that political influence with local officials did succeed in stopping prosecution that is so important as the fact that headquarters officials in Washington were willing and able to resist strong pressure brought to bear upon them to drop the case. So long as United States district attorneys are appointed from the district in which the office is located it must be expected that they will prove amenable to local political influence.

Indeed the district attorney did have some strong arguments on his side. Three hundred miles is a long way to ask an individual to travel to answer for a petty offence. This points to the need for new arrangements for the trial of federal misdemeanors, possibly through the extension of the powers of the United States commissioners.

An even more fundamental question is raised in considering whether federal district courts should be required to try these petty misdemeanors at all. The question boils down to this—is the business of the federal district court of such nature as to be seriously handicapped by the trial of violations of federal fish and game laws?

The Business of the Federal District Court: The jurisdiction of the federal district court is that of a court of first instance for cases involving a wide variety of federal statutes. Today it may be testing the constitutionality of the

National Industrial Recovery Act, the Farm Loan Act, or the Agricultural Adjustment Act, matters which vitally affect the fundamental rights of the whole people. Then tomorrow comes a case of a man charged with shooting a duck forty minutes after sunset in violation of the Migratory Bird Treaty Act. Is it to be wondered that federal judges object to the latter type of case?

The offense is petty in itself, the court docket crowded with important cases waiting to be heard, and it is natural that the federal judges should object to their courts trying cases which in their opinion are "better suited to a police court". Naturally, too, they show their disapproval in the only way they can—either by refusing to allow indictments to be filed, or, should the case be based upon indictment by grand jury, by fixing such extremely low fines as to make a joke out of the whole affair.

Two examples taken from the files of the Survey during recent years illustrate instances of the latter type. Five persons in North Carolina were charged with shooting at ducks during the closed season in violation of the Migratory Bird Treaty Act. The arrest was made by state wardens acting as United States deputies. Their prisoners admitted before arrest that they had been hunting ducks, and indeed had fired several shots which had been heard by the officer. They also admitted that they had been hunting during the closed season previously and had, during such time, actually killed ducks.

The accused demanded jury trial, which dragged on for some time in the federal district court, but finally all of them were found guilty by the jury. The judge fined each of them one cent. The explanation for this ridiculously low fine lies in the fact that during that same session the judge had been faced with a whole series of similar misdemeanor cases, some liquor, some narcotic and some game law violations.

Another prosecution in Louisiana met with much the same result. In this instance there were two separate cases but the accused were tried together. The first involved eleven ducks, and the second, twelve ducks found in cold storage during the closed season, without any marks to show that they had been taken at any other time than during that season. When the accused were brought before the federal judge at Alexandria, they were convicted but were fined only ten cents each, the Judge remarking with a considerable show of irritation,

The game wardens are not getting the commercial violators of the game laws, but are reporting minor cases which were committed without malicious intent.

Federal Police Courts: The solution of the problem of the overcrowding in the district courts lies in the establishment of a system of federal police courts able to try misdemeanors arising out of violations of federal statutes. These could be established by merely increasing the authority of the United States commissioners who are already authorized to hold preliminary hearings and fix bail.

If the commissioners were likewise allowed to try all minor infractions of the federal statutes, to accept pleas of guilty, and to fix penalties, the federal district courts would be relieved of most of these petty cases. This plan also offers the advantage of far more speedy trial than can be had in the federal district court in most jurisdictions.

The Federal District Attorney: In the vast majority of cases brought to their attention the federal district attorneys have cooperated wholeheartedly with the Biological Survey and the Bureau of Fisheries in enforcing the federal conservation statutes. The conclusion should not be drawn from the single case cited above that politics unfavorable to

law enforcement always apply. That case merely showed that political pressure is a possibility that must be considered.

It is to prevent even this occasional political pressure that a reform in the manner of choosing the district attorney is suggested. So long as he continues to be appointed upon recommendation of the local political organizations, it is not surprising that occasionally he will be responsive to suggestions from the leader of that organization.

The reform is obvious—place the personnel of the Department of Justice upon a career basis, making admission, promotion and dismissal of district attorneys entirely upon merit, irrespective of political affiliation. Hand in hand with this policy should go one of greater control from Washington and the abolition of the present local residence requirement. From the practical point of view it may be that the total abolition of the residence requirement is impossible, but assuredly it would be possible to substitute a more general regional requirement plus the merit system for the present strictly local one.

Effectiveness of Federal Enforcement: Summing up, one might say that on the whole the enforcement of federal conservation laws, like that of federal laws generally, is more efficient and thorough than that of state conservation laws. The personnel, the administrative machinery, and the methods are on the whole sound, although the two reforms suggested would no doubt remove such complaint as may lie against the present system. It is to be noted that they are not reforms particular to conservation law enforcement, but arise out of problems of federal law enforcement generally.

State Game Law Enforcement: The law enforcement problems of the states differ from those of the Federal

government, not in kind but in degree. To a much greater extent than in the case of the federal government, the major problem of the states is that of personnel. To obtain trained wardens, able district attorneys, learned and industrious judges to man the law-enforcement agencies is the chief problem before the states.

Political interference with the normal course of justice appears more frequently than in the case of the federal government, due in large measure to less able and less honest personnel. In other words, most of the defects in the state game law, indeed law enforcement generally, can be traced, not to the laws themselves, nor to the administrative system, but to the men who are chosen to enforce them.

State Enforcement Procedure: When one follows through a case of game-law violation in a typical mid-western state many of the problems become self-evident. Most of the violations take place in the rural area, so it would be well to locate the case there.

John Day, aged 32, married, father of three children, kills a deer during the closed season and is arrested in the act by a state warden. Day has a bad record having been arrested periodically in the past on charges of game-law violation. He has the reputation in the neighborhood of being a "good-for-nothing". His chief occupation, if it may be called such, is farming, but he also engages to some extent in the manufacture of illicit liquor, is suspected of petty thievery, and in general has succeeded in making himself an all-around nuisance.

Day is taken before the local justice of the peace who is perfectly familiar with his whole history. Under the law he may fine the offender or, in the absence of ability to pay the fine, commit him to the county jail for a sixty or ninety day term. However, should he do that the county will not

only have to pay the cost of Day's keep in jail but most probably, in addition, provide aid for his family.

One country Justice of the Peace settled the matter of expense by writing the following note to a state game and fish department,

If your department will remit about sixty dollars to Beltrami County to defray the expenses of transporting and keeping Mr. X in jail for thirty days, I will have him committed.

In the face of the dilemma presented to him the judge will most probably let John Day off with another lecture and the threat that if he repeats his offence he will be sent to jail. Of course it won't be long before Day will be back on a similar charge and then the process will be repeated. In due course the justice will lose patience and finally commit him to jail for a term, but even that will not reform him.

Day represents a certain type of game-law violator who are unfortunately very numerous at the present time. Many will say that he is the result of maladjustments in our social system and not to blame for his offences. Perhaps the proper approach does lie in improving the economic status of this group. Numerous plans, both state and national are now being broached with that aim in mind. In the meanwhile, however, a more energetic enforcement of the law can be brought about by a shift of the expenses of enforcement from local units to the state.

The Justice-of-the-Peace Court: Most state game-law violations are tried before the justice-of-the-peace court. The judge in this court is customarily without formal legal training and his jurisdiction is limited to petty offences which are tried without jury.

So far as conservation laws go, the chief difficulty with the justice-of-the-peace court is to get strict enforcement of

the game laws against local offenders. The close contact between the justice and his neighbors in the same rural communities makes him very loath to deal with them as harshly as the law provides. On the other hand, there is little complaint from state conservation departments when persons outside the community are involved.

A special effort should be made by the state game and fish officials to keep in contact with the justices-of-the-peace through the state, both by means of correspondence and through personal visits so as to counteract this local pressure. If publicity were to be given in the conservation magazines within the state to decisions of the local courts it would have a wholesome effect on their decisions.

Where the state conservation department is dependent for part of its revenue upon the income from fines levied in justice courts, complete records should be kept of each case, the amount of fine levied, and the amount collected. Justices oftentimes allow the fine to be paid in installments, and in such cases care should be taken that the full amount is eventually paid.

One of the mid-western conservation departments succeeded in nearly doubling the revenue it received from fines levied in the justice courts by inaugurating a follow-up system to insure that fines levied were paid. A system of this kind not only increases the revenue of the department but impresses the justices that the department is very much interested in the manner in which they dispose of game and fish cases.

Speedy Trial and Adequate Bail: It is the custom in most of the states as in the case of the federal government to hold as evidence the guns or traps of a person taken in the act of violating the laws. These serve also as excellent bail to insure the appearance of the defendant at the trial. The

importance of requiring adequate bail and speedy trial are part of the general reform needed in the administration of justice as a whole and are not problems peculiar to game-law enforcement.

On the other hand, lack of adequate bail and an unreasonable delay between the time of arrest and trial have as bad an effect on game-law enforcement as upon any type of enforcement. Here is a case in point. A man by the name of French was arrested, charged with killing a wild swan on Lake Minnetonka just outside of Minneapolis. The prosecuting officers had a clear case against him but after four years the trial was *not proessed* because, in the words of the District Attorney "one of the witnesses was dead and this office was unable to locate the defendant French." The offence was committed November 25, 1925, and information was filed on March 12, 1927 but the case was not actually called for trial until October 12, 1929, four years after the misdemeanor was committed. In this case the delay in bringing the case to trial was due to the congested condition of the district court's docket.

Fine or Jail Sentence: It is the usual belief of the law-enforcing officers that a jail sentence is to be preferred to fine as a deterrent of future violations. However it is only reasonable that jail sentences should be reserved for the more serious infractions of the game laws. Such offences, for example, as hunting without a license, shooting after sunset, or fishing out of season could well be punished with a fine, leaving the taking of big game animals, fur poaching and market hunting or fishing to be punished by jail sentences.

The only punishment under the older game statutes was a fine, and if the defendant was impecunious, he escaped punishment altogether. A very considerable proportion of

offenders against the game laws are of this class, and experience has demonstrated that to secure obedience the alternative corrective, imprisonment, must be allowed; otherwise, many violations go unpunished.

It would be very difficult to secure convictions under the game laws where punishment was limited to imprisonment alone. On the other hand such laws are often very lightly respected when offenders know that the only punishment is a fine. It would seem, therefore, that the provision in the penal clause of the game laws of most states authorizing fine or imprisonment, or both, is the proper scheme of punishment.

The Market Hunter and Fur Poacher: One of the first restrictions placed upon hunting in this country was upon the taking of wild animals in quantity for the purpose of selling them, that is the prohibition of "market hunting." At first the restrictions applied to only a few species of wild life but today practically every state has fixed "bag limits" on the seasonal take for various species of wild game. The market hunter whose very business consists in killing wild game and selling it, cannot operate successfully within the proscribed bag limits and therefore he disregards them. Consequently, the market hunter is looked upon as one of the most dangerous enemies of conservation.

The trapper who, visualizing the easy profits obtainable by taking fur animals within game refuges or in other areas closed to the ordinary trapper, is likewise a major menace to conservation policies. Taken altogether, the activities of the market hunter and the fur poacher constitute a very serious problem in some sections of the country.

In the first place, it is not a relatively simple battle between the small-town loafer and the forces of conservation as in the cases cited above, but a real struggle between

well organized criminal groups and the whole nation. The same situation appears here as in the case of the manufacture of illegal liquor. There two classes of persons were involved, on one hand the group which made a little liquor occasionally for home consumption and on the other, the big-time gangster moonshiner. The same thing is true in regard to wild life. There are those who occasionally break the game laws and use the game taken themselves and, on the other hand, there is the professional group who regard poaching as a business matter. This latter class is well organized so as to protect itself against the law.

The business carried on in illegal fur pelts alone reaches enormous totals in a single year and yields tremendous profits. As expected, the greater percentage of the profits go not to the trapper but to the fur buyer. Still even the profits of the trapper are not inconsiderable in these times, which explains why poaching is so attractive.

In northern Minnesota, which contains as many beaver as are to be found in any place in the United States at the present time, fur poaching has been developed as a regular business. The country in question is a vast wilderness area dotted with hundreds of lakes. The only means of transportation over most of it is by airplane or by the older method of canoe, portaging from lake to lake.

The poachers operate either alone or in groups under the direction of a leader. A poacher will locate on a stream where there are several beaver ponds just before the snow comes in the fall and proceed to trap out the areas during the winter. He does not trouble about catching only adult beavers or about such matters as leaving breeding stock for the future but instead cleans out the whole colony.

In recent years the airplane has been called into play to aid the poachers. A group will be taken into the wilderness in a hydroplane just before the lakes freeze over and

located with a winter's supply of food at advantageous spots. In the spring, as soon as the ice melts in the lakes, they are picked up again via airplane with their winter's catch. Because of the difficulty of travelling through the wilderness in the winter it is a fairly safe undertaking and the profits from a successful winter's catch will bring a trapper several hundred dollars.

However, it is the fur trader who makes the real money. He will pay the trapper from five to eight dollars a skin for his fur where the ordinary value of a beaver pelt in prime condition ranges from \$25 to \$50. Eight or nine pelts will make a coat which will sell for about \$800. It is estimated that the trade in illegal pelts totals \$20,000 in a single year in one northern Minnesota city.

The Minnesota Game and Fish Department believes that the fur poachers and traders have a definite organization which employs a skilled attorney to defend any of its members who may run afoul of the law. This much is certain—the same attorney appears for all of the fur poachers or traders who happen to be arrested.

Prosecution of Fur Poachers: The first problem raised, of course, is that of catching the poachers, but the second and more important is that of punishing them after they are caught. Here is a case that came to the writer's attention in the Minnesota beaver country that illustrates the problems involved in prosecution.

A chap by the name of Spicer, a well-known poacher and fur trader, was arrested by a state warden and charged with buying illegal furs. He was taken to the nearest county-seat, a town having a population of six hundred, for trial in the district court. His two companions turned state's evidence and swore out affidavits stating that they saw Spicer buying the furs, and giving the details of the

transaction. The State, it would appear, had an open and shut case. It so happened, however, that the district attorney, one of three lawyers in the town, was an old man who had seen better days. Spicer was defended by the attorney from the nearby city who customarily defends the fur buyers. The state conservation officials urged the district attorney to request aid of the State Attorney General's office in preparing his case, the Attorney General being empowered by statute to give aid at the request of the district attorney. But the district attorney indignantly refused on the ground that he was perfectly capable of handling his own case without outside aid. When the case came up for trial the prosecution so badly managed its charges that Spicer escaped with a small fine.

The fact is that when the fur buyers are defended by highly skilled attorneys from the big cities, the district attorneys in the small backwoods counties are unable to cope with them and therefore lose their cases. There are two possible solutions to the problem, either to give the State Department of Conservation an attorney to act for the state in any cases growing out of game-law violations or empower the governor to appoint an attorney replacing the district attorney in any particular instance he feels it necessary. This latter method is used in New York state, not only in regard to conservation cases, but in any case where the governor feels that action wise. It offers a solution to this type of case where the local district attorney really needs aid but will not ask for it. The appointment of a permanent prosecutor for the Department of Conservation would mean that the district attorney would be inclined to load his work on the department.

Cooperation Between States in Law Enforcement: The officials in the various state conservation departments have shown an unusual willingness to cooperate with one another,

owing no doubt to their interest in a common undertaking. Such lack of cooperation as there is comes not from the absence of a desire to cooperate but rather from the lack of organization to that end and from the absence of legislative authorization.

Cases of extradition under the game laws are comparatively rare, possibly because violations of such laws are usually misdemeanors and because of lack of attempt on the part of game conservation officials.⁷ A great effort should be made by state enforcement agencies to arrest game-law violators even after they have crossed the state borders.

The most usual form that state cooperation takes so far as enforcement goes is to authorize wardens of neighboring states to act as wardens within the state. This provision is of great value along the border areas between states.

Federal Cooperation in Law Enforcement: Fortunately the federal and state law-enforcing officials work in equally close cooperation. The skeleton warden force maintained by the federal government, numbering in all 27 men scattered over the entire country, does not permit any great amount of patrol work by that force. They are more inclined to contact the state wardens, many of whom are deputized to act as federal wardens and to intervene only when state laws do not cover a particular act or when they believe that a prosecution in the federal courts will be more successful than in the state courts.

An excellent example of cooperation between federal and state officers is found in a recent Illinois case. There the United States protector had been given information that a certain group of men were engaged in hunting ducks for

⁷ No cases of extradition in recent years have come to the writer's attention but a number of instances are cited in Williams, R. W., *Game Commissions and Wardens* (Government Printing Office, 1907), p. 51.

the Chicago market during the closed season. Efforts were made to catch them during the time when they were hunting, and when these were unsuccessful it was decided to watch the highways leading into Chicago.

A screen of state officers was thrown out over the roads on which the poachers would most likely travel, with the United States protector in charge of the round-up. A party of three men traveling in two cars, without licenses, containing well over five hundred ducks, was caught by a state highway patrolman and turned over to the United States protector. In this instance the federal district attorney was very anxious to cooperate and fought the case through with great vigor, succeeding in obtaining a jail sentence of six months plus a fine for one of the defendants, and fines of \$300 and \$100 for the other two.

It would have been possible to prosecute this case in the state courts also, for the same deed constituted a violation of the state closed-season law, but as a general rule the conservation authorities are satisfied with one successful prosecution. The general understanding seems to be that for petty offenses covered by both state and federal law, the violation will be tried in the state courts because a more speedy trial is possible. For more serious offenses the particular circumstances in each case are considered.

Enforcement as the Warden Sees It: The average American is not accustomed to think of the game patrol as dangerous work, yet in the wilder parts of the country it may be. The arrest in any case of an armed man who may through fright or on purpose fire his gun is a ticklish business.

In the wilderness areas of the northwest the dangers are greatly increased. There the arrest is often made far from civilization and the warden operates against men who are known to have bad criminal records. These men will fight

arrest, not so much because they fear punishment for violation of the game laws, but because once arrested they may be held for other crimes. However that may be, the stakes in the game are high, beaver pelts worth hundreds, sometimes thousands of dollars, while the chances of being caught should the warden be killed are comparatively small. It is no wonder that in many parts of the country a game warden's life is a dangerous one.

Then, too, the warden is handicapped by the fact that he must not, except as a last resort, use his own weapon. A poacher killed even while resisting arrest would raise a storm of protest from the public. Besides dealing with known bad men, he must also be ready to enforce the game laws against the politically powerful who may at some later date be in position to control his advancement within the service.

All these facts point to the necessity of a well paid, intelligent warden force, both state and federal. The best known methods of recruitment, promotion and retirement alone will secure such a force upon which future enforcement of the game laws in good part depends.

CHAPTER X

CONCLUSION

IN the course of this study certain factors, which are bound to have a profound influence upon the future course of governmental policy regarding wild life, have become evident. It is perhaps well to summarize these factors briefly, and to attempt to forecast their possible effect upon future policies.

Nation Committed to Conservation: In the first place it is fairly obvious that in so far as future public policy is concerned, we as a nation are definitely committed to the principle of conservation of natural resources. Conservation has sometimes meant merely the negative policy of preventing uneconomic use, but in our present state of development at least it means replacement as well as prevention. Certainly conservation of wild life in America today involves largely the problem of replenishing what has been destroyed.

In the past we have operated upon *laissez-faire* principles of economics, maintaining that if each person did what is best for his own interests, he did what is best for the interests of all. Today this theory has been pretty well exploded and we have come to realize that the interests of the individual may run directly counter to those of society at large.

One might well query, who benefited in the past by the ruthless cutting of timber, destruction of the soil, and killing of game? A few individual lumbermen became wealthy; a few tobacco planters made great fortunes and a

half-dozen families accumulated great wealth through the fur trade which virtually wiped out the fur-bearing animals on this continent. But what did society as a whole gain from such exploitation of the nation's natural wealth? True, the country was opened to settlement but the same results, if somewhat less rapidly, would have occurred eventually. Society at large today must replace the resources which these few individuals so thoughtlessly destroyed in the past.

The basic principle of future conservation policy in this country seems to be that the government should adopt on the one hand regulatory policies to prevent further exploitation and on the other, so long as we keep even a modified form of the *laissez-faire* economic system, policies which will make it advantageous to the individual to use the natural resources committed to his care so as to benefit society at large as well as himself.

A revamping of the tax policies dealing with forestry and wild life, as has been pointed out earlier in this study, might go a long way toward achieving this result. So far as wild life itself is concerned, every effort should be made to induce the private individual to devote his land to wild life breeding purposes as secondary to its major use. The easiest way to accomplish this result is to make it economically advantageous to the individual landowner through a system of tax rebates.

Need for Integrated Conservation Policies: The second factor that becomes evident is that wild-life conservation cannot stand alone apart from other forms of conservation. The soil, the timber, the water, and the wild life resources of the country are all bound together and must be treated as one problem. It is uneconomical to consider them as entirely separate entities. Too often in the past the wild-life enthusiasts have forgotten this essential fact.

Both programs of work and administrative organization for the federal and state governments must be predicated upon the close relation between soil, timber, water, and wild life resources. However, correlation, not amalgamation, must be the guiding principle of administration. One crying need of conservation in this country today is an integrated conservation policy which, while keeping the resources separate and distinct from each other administratively, will provide closely correlated policies for all.

Lack of Satisfactory Data: Attention has been called to the fact that much scientific data is lacking upon which to base a complete conservation program. On the other hand a mass of data does exist. In most fields the necessary technique has been found and applied in limited areas in the country so that by merely extending those same methods to other sections, sufficient data may be obtained.

Such, for example, is true of forestry which as a science has developed its own excellent technique. Granted sufficient funds and trained personnel to do the work, it is only a matter of time until a complete collection of scientific data regarding the nation's forest resources and possibilities will be available. In certain other fields, notably wild life, even satisfactory techniques for the accumulation of data are lacking, or, if available, have not been applied to any extent by governmental agencies in this country.

Nevertheless we cannot wait until complete data upon all the natural resources are available before deciding upon a conservation program. A lengthy period of aimless drifting without clearly formulated policies to serve as a guide for governmental action is unthinkable. The alternative is to drive ahead with the data available and to prepare a flexible plan into which may later be incorporated such changes as are necessary, as more complete scientific data in the various fields becomes available.

In this regard it is interesting to note that the Science Advisory Board, composed of some of the nation's outstanding physical scientists, in a report to the President on December 14, 1934,¹ recommended a six-year program of scientific research supported by Federal funds, centered around natural resources. Whether this particular plan is adopted in all its details or not, some such comprehensive effort should be made by the government in the near future to complete the scientific inventory of the nation's resources. Until such inventory is made, any conservation program will necessarily involve some elements of guesswork.

Defects in Administrative Organization: However much the lack of an integrated conservation program may be attributed to the absence of scientific data, the defects in the administrative organizations in both Federal and State governments as a contributory factor should not be overlooked. The policy of organizing each resource, i. e., soil, timber, or wild life, under the direction of an independent agency makes the formation of an integrated program very difficult.

This structural defect has been recognized by students of administration and efforts are being made to bring the various conservation agencies in the Federal government into closer relation with each other in a division under an assistant secretary in one of the existing executive departments. In a few of the states the reorganization movement has been responsible for the establishment of conservation departments which include among their subdivisions all of the state agencies dealing with the various forms of conservation.

This administrative reformation in the state might be carried out more completely were it not for the unfortunate

¹ *New York Times*, December 15, 1934.

belief of some wild-life enthusiasts that game and fish should have their own independent department. This belief was first engendered by the necessity of removing the administration of wild life resources from political domination. In its day, the independent board of game and fish commissioners rendered good service to the cause of wild life. However, the writer believes that the conditions which made an independent game and fish department necessary are no longer present. Today a conservation department within the state administrative system which will include forests and parks, as well as wild life, offers the best opportunity for real wild-life conservation.

Place of Wild Life in the Future National Economy: It is distinctly encouraging to see that wild life is being given an increasingly important place in the national economy. There is every indication that the Roosevelt administration will, in the 1935 session of Congress, sponsor far-reaching land reforms which in their very nature will involve conservation of wild life as well as other natural resources. The report of the National Resources Board² to the President definitely recommended that large areas of land be withdrawn from cultivation and be devoted chiefly to forest, soil, and wild life restoration. There is every reason to think that this report will form the basis for the administration's agricultural policies during the next year.

Legal Restrictions upon Conservation Activities: Few other undertakings of the government have been as little hampered by unfavorable court decisions as wild-life conservation. Powers of the Federal government, under the treaty clause and the commerce clause of the United States constitution, have been hedged about with few restrictions. In those instances where due process has entered the ques-

² Govt. Print. Office, December, 1934.

tion the Federal government has been granted a surprising leeway by the courts. Such cases as have arisen concerning the power of Congress to legislate for wild life on the public domain have resulted in almost every instance in the upholding of that authority.

The powers of the State governments under the constitution have also been broadly interpreted by both Federal and State courts. On the grounds of ownership and the right to regulate under police power, the State governments have ample authority in the field of wild-life conservation. The major limitations imposed upon the states arise chiefly from such authority as has been vested in the Federal government by the United States constitution.

The Federal government has shown remarkable willingness to cooperate with the State governments wherever necessary to reach some particular form of traffic in wild game which has been beyond the legal powers of the states. When the states found that they were prevented by the commerce clause of the constitution from stopping the importation during the closed season of game legally taken elsewhere, Congress intervened and by means of the Lacy Act of 1900 prohibited such shipments.

The possibility of obtaining certain minimum standards among the states has been explored under the Migratory Bird Treaty Act of 1918, followed by the Black Bass Act of 1929. This type of regulation in the future, the writer believes, offers opportunities for further development.

Reform of Enforcement Procedure: The difficulties of enforcing the game and fish laws are in few particulars different from the difficulties of enforcing any other type of law. There are the problems created by the inertia of public opinion, by the lack of properly trained personnel, and by the political pressure which is often brought to bear

upon enforcing agencies. These problems can be met by education, by application of good personnel management principles, and by publicity. It is fairly obvious that greater effort should be made by enforcing agencies, both Federal and State, to educate public opinion to the necessity of strict law enforcement as a corollary to conservation. At the same time publicity of the whole enforcement procedure would do much to neutralize political pressure and to hold officials charged with enforcement to high standards.

Conclusion: If one were to sum up in a single phrase the greatest problem of conservation in the future, it would be how to protect the rights of the many against the greed of the few. The answer undoubtedly lies in thinking and acting. We are sometimes tempted, especially in a mood of impatience, to contrast thought and action, and to say what we want is less thinking and more activity. That is a mistake. Much action goes to waste because it has no thought behind it. Many a movement, entered into with zeal and good-will, is pre-doomed to failure because it has no background of correct theory. Thought without action is nugatory, but action without thought is a waste of energy. Taken together, first thought, then action, will bring about a sound solution of the numerous wild life problems that face the nation today.

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