## THE CONSERVATION COMMISSION AND ITS WORK.

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There is every reason why the members of this Academy, and through them the citizens of Indiana, should have definite knowledge of the work, the achievements, and the cost of the State Department of Conservation. It is the one great agency for the protection and development of the natural resources of the state. It would be out of place in this connection to detail the lines of work which it undertakes or to recite the manifold ways in which it functions for the benefit of the state. It works through six great divisions each presided over by a chief who directs the work of the division. These divisions are Geology, Entomology, Forestry, Lands and Waters, Fish and Game, and Engineering. The very names of the divisions indicate with sufficient accuracy the scope of their work.

This attempt to unify all of the scientific interests of the state was put into operation in 1919. The cost to the state has been absolutely nothing. As a matter of fact, the commission through its years of work has returned to the state more than the total appropriations for its support. From April 1, 1919, to September 30, 1924, the figures are as follows:

Total expenditures	\$1,420,971	81
Receipts from appropriation and governors contingent fund	557,968	15
Receipts from earnings of department	863,003	66
Cash balances on hand September 30, 1924	\$91,044	41
Appraisals, September 30, 1923—		
Turkey Run\$150,000		
McCormick's Creek		
Muscatatuck 10,000		
Clifty Falls 125,000		
Clark County State Forest		
Fish Hatcheries 70,000		
	390,000	00
Improvements in 1924—		
McCormick's Creek \$4,000		
Muscatatuck		
Clifty Falls		
Road—Clifty Falls 20,000		
Hatcheries 36,000		
	107,000	00
	\$588,044	41
Value of equipment	\$40,000	

<sup>&</sup>quot;Proc. Ind. Acad. Sci., vol. 34, 1924 (1925),"

This shows that on September 30, 1924, the value of the state holdings, listed above, exceed by over \$70,000 the amount of appropriations and other tax funds. It is a question as to whether there is another case in any state in which in so short a time such a showing has been made.

The publications of the State Department of Conservation cover 47 titles as follows: Trees of Indiana, Laws of Indiana Relative to Natural Resources, The Digest of the Laws, Digest 1920 Edition, The Why and Wherefore of Conservation in Indiana, Turkey Run State Park, Indiana Kaolin, Lake Maxinkuckee, Oil and Gas Report, Fish Culture, Proceedings of Tri-State Forestry Conference, One Hundred Years of Natural Resources, Forest Reserve Guide, First Annual Report, Second Annual Report, Survey of Natural Resources, Breeding of Skunk, Fish and Game Laws, Assessment of Forest Lands, Points of Interest in Indiana, Handbook of Geology, Game Warden's Statistics, Chinch Bug, Game Warden Manual, Auto Camp Sites, Third Annual Report, Points of Interest (revised edition), Indiana Woodlots and Their Management, Food Fishes of Lake Winona, Conservation in Indiana, Planting and Care of Shade Trees, Black Walnut, Fish and Game Laws, Fourth Annual Report, Turkey Run Booklet, Guide to Forest Reserve, Cat and Dog Fleas, McCormick's Creek Canyon, Bee Laws, Fish Culture, Fish and Game Laws, Geological Conditions in Oil Fields of Southwestern Indiana, Brood and Adult Bee Diseases, Shrubs of Indiana, Law and Regulations Affecting Oil and Gas Operations in Indiana, Trails in Turkey Run State Park, Trails in Clifty Falls State Park.

Some of these such as the "Trees of Indiana", "Lake Maxinkuckee Biological Survey", "The Handbook of Geology", "The Oil and Gas Report", and the "Shrubs of Indiana", are exceptionally fine examples of the scientific and at the same time, the practical work of the commission. These publications, which are of such high value as a record of our natural resources, could not have been issued by any other agency in the state. A study of this list of publications will indicate more clearly than any words of mine, the wide range as well as the scientific and practical value of the work of the various divisions of the commission.

Perhaps in no other way has the Conservation Commission more clearly demonstrated its value to the state than in establishing the state parks which have become in the brief period of their administration by the commission, among the most notable and most largely visited state parks in the United States. Very few people perhaps realize the fact that in our largest park, Turkey Run, there are over 75,000 paid admissions each year, nor do they realize that at Clifty Falls, the most recently organized and equipped of the parks, the record of attendance is rapidly approaching that of Turkey Run. The other parks because of their location and because of their relatively small size, while not so largely visited, are functioning admirably for the pleasure and health of the citizens of Indiana. When to these areas there shall be added the dune region, the state will have developed perhaps the most comprehensive and carefully selected system of parks in the United States. The distribution of the parks is such as to meet the convenience of the

people of the state and they exhibit, perhaps, a more interesting and widely diversified series of physical features than can be found in any other commonwealth.

The Fish and Game Division in its work at the fish hatcheries is developing methods and securing results which are of the highest scientific interest and of the greatest practical result. So valuable has been the work that it is being constantly expanded in order to meet the demands made upon it. No appraisal of the value of the Conservation Commission to the state can be made without a thorough study of the splendid work of the Division of Fish and Game. In addition to the establishment of these fish hatcheries, the Division of Fish and Game recently acquired large tracts of land to be utilized as game preserves. While the main purpose of these areas is game preservation, they will be managed through the Division of Forestry in such a way as to demonstrate the possibility of using waste and apparently sterile lands profitably for forestal purposes.

The work of the Division of Engineering is perhaps less spectacular than that of the other divisions of the commission. It is, however, of very great practical importance, especially from the standpoint of the conservation of the water power of the state. It also serves in preventing the pollution of streams, in the maintenance of lake levels, in the determination of stream flow, and in a host of other ways protecting the state from those who would exploit its natural resources.

The work of the Divisions of Entomology and Geology has been long recognized as of the highest practical value to the citizens of the state. The work of these divisions is perhaps better known to the members of the Academy than that of the divisions just discussed. There is, therefore, no reason to repeat in this connection the results which they have achieved.

In addition to the parks indicated above, the State Forest Reserve in Henry County covering 3,500 acres of land is administered by the Forestry Division and probably there is no better location for a determination of the question as to possible profits to be derived from forest operations in waste areas. The soil is extremely thin and sterile. The topography is such as to preclude successful agricultural operations. Unless this large area, representative of much of the hill land of the southern counties, can be profitably utilized for forestal purposes, it is an absolute loss to the state. Experiments covering 24 years have been conducted on this tract of land; first, by the State Board of Forestry and later by the Conservation Commission. As a result of the studies, the Conservation Commission is in possession of the largest body of data concerning the growth, sylvical qualities, the cost and the possible profits of hardwood trees that exists in the country. The collection of such data necessarily covers a long period of years, but in the relatively near future, conclusions can be drawn from these experiments which will serve to give direction and certitude to woodlot planting by the farmers of the state.

This brief outline of the work of the commission is very far from complete. Some very remarkable results have been secured in the way of protecting the rights of the state as regards coal, gravel, water power, etc. The immediate results of this work have been considerable. The ultimate result will be almost incalculable. The members of this Academy should view with satisfaction the work of the Conservation Commission and should wherever possible, express this satisfaction to those who have less knowledge of its record.

This paper may be considered in the nature of a report to the Academy through whose nomination I hold my position as a member of the commission.