



LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

Biennial report of the State Conservation Commission of Wisconsin for the fiscal years ending June 30, 1927, and June 30, 1928. 1928

Wisconsin. State Conservation Committee (1928-1956)

Madison, Wisconsin: [s.n.], 1928

<https://digital.library.wisc.edu/1711.dl/2VUH3BCIOMR3B9D>

This material may be protected by copyright law (e.g., Title 17, US Code).

For information on re-use, see

<http://digital.library.wisc.edu/1711.dl/Copyright>

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.

BIENNIAL REPORT

11 ~~6A~~

OF THE

STATE CONSERVATION
COMMISSION

OF WISCONSIN

FOR THE

Fiscal Years Ending June 30, 1927, and June 30, 1928



Madison, Wisconsin
1928

LIBRARY
COLLEGE OF AGRICULTURE
UNIVERSITY OF WISCONSIN



BIENNIAL REPORT
OF THE
STATE CONSERVATION
COMMISSION
OF WISCONSIN

FOR THE

Fiscal Years Ending June 30, 1927, and June 30, 1928



Madison, Wisconsin
1928

THE CONSERVATION COMMISSION

L. B. NAGLER
Conservation Director

COMMISSIONERS

WILLIAM MAUTHE, *Chairman*
Fond du Lac

HASKELL NOYES, Milwaukee

O. C. LEMKE, Wausau

A. W. ICKS, Green Bay

F. L. GILBERT, Madison

E. M. DAHLBERG, *Secretary*
Ladysmith

C. L. HARRINGTON
*Superintendent of Forests
and Parks*

B. O. WEBSTER
Superintendent of Fisheries

MATT. PATTERSON
Assistant to Director

H. W. MAC KENZIE, Antigo
Chief Warden

W. B. GRANGE
Superintendent of Game

D. H. KIPP
*Superintendent of Education
and Publications*

LETTER OF TRANSMITTAL

HONORABLE WALTER J. KOHLER,
Governor of Wisconsin.

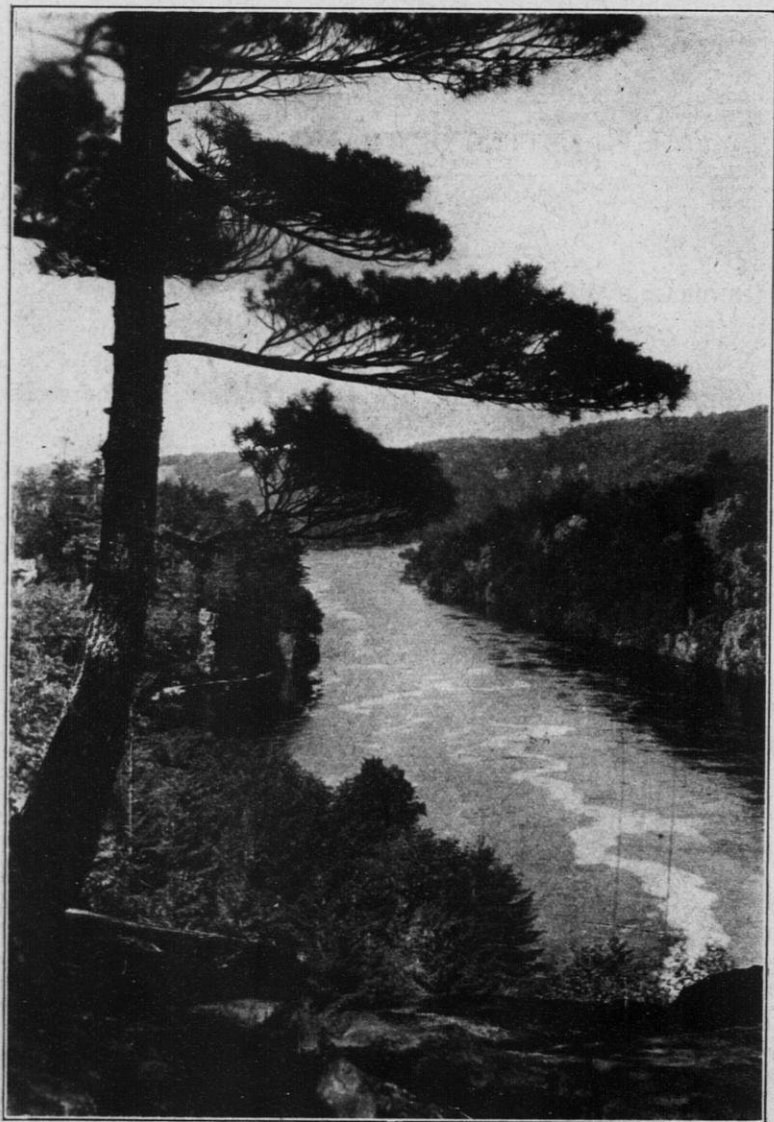
SIR: Agreeable to the provisions of law, we herewith submit a biennial report of the activities of the Conservation Commission of the State of Wisconsin; and trust that it will meet with your approval.

Respectfully submitted by

The State Conservation Commission,

WILLIAM MAUTHE, *Chairman,*

E. M. DAHLBERG, *Secretary.*



Delles of the St. Croix Interstate Park.

FOREWORD

As the 1926-1927 biennium draws to a close, the conservation program in Wisconsin can truthfully be said to be further advanced than it has ever been in the long history of this work in Wisconsin. Conservation in Wisconsin today is more than sentimentality; it is more than an idealistic gesture. Conservation in Wisconsin today means more than just propagating and planting pheasants and fish to satisfy the predatory instincts of hunters and fishermen. Conservation means more than the preservation of beauty spots and the stocking of trout streams and bass pools to attract tourists. Conservation today means the restoration of our marshes and the creation of conditions under which forests will grow and be grown. It means bringing into being not only refuges for wild life, but also new storehouses of raw materials for industry, that Wisconsin may retain its high standards of living and levels of prosperity that rightfully belong to her citizens.

The last biennium has seen progress in all of the different departments of the conservation commission. At the beginning of the biennium there were three separate divisions of the work of the conservation commission, the department of forests and parks, the department of fisheries, and the department of law enforcement. Each of these has been developed and enlarged, and the commission has also undertaken four new branches of activity, two of which have been incorporated into regular departments, and the other two of which function as extra curricular endeavors.

Forestry

To the state conservation commission of Wisconsin, the basis of all conservation work lies in forestry and reforestation. Without forests there can be none of the lumbering nor woodworking industries which have always been promi-

ment in Wisconsin. Without forests the condition of our lakes and streams would become such that they would not harbor the fish and other aquatic life which makes Wisconsin famous throughout the country. Without forests to provide cover, our game would dwindle away to the point where there would be no more hunting. Forests also provide the beauty spots, recreation centers, and wonderful scenery which annually attract millions of tourists into the state.

Realizing that the greatest enemy of our forests is the forest fire, the work of the commission during the past two years has been largely directed to the development and perfecting of an adequate forest protection system. Today there are eleven fire districts, each of which contains from 800,000 to 1,500,000 acres, and each of which is so situated that it protects a section of the state in which forest fire hazard is great. A forest ranger is in charge of each of these districts, and a system of lookouts with telephone communications between them has been established. Each district is adequately supplied with fire fighting equipment, and an organization of subsidiary fire fighters has been built up so that at a moment's call a large body of trained men can be called upon to combat the greatest menace to our forests.

The problem of reforestation has been attacked from two different angles. The commission's mammoth nursery, which is at Trout Lake, in Northern Forest Park, Vilas County, has had its capacity more than doubled during this past biennium. Today the nursery can and does contain approximately 12,000,000 growing trees, and Wisconsin stands sixth among the states in nursery operations. More than 2,000,000 trees were distributed this last year to be used for reforestation purposes only in Wisconsin, and approximately 1,000,000 trees were sold by the commission to private individuals for shipment all over the state. All shipments from the nursery today go to the people who sign an agreement to use the trees not for ornaments but for reforestation. The nursery is operated entirely on a cost basis.

The last legislature took a tremendous forward step in reforestation when it passed the new forest crop law, which is making it possible for the millions of idle acres of Wis-

consin's north land to be again put into use. Fundamentally, this new law makes it possible for the State of Wisconsin to enter into a partnership with private individuals or companies owning large tracts of cut-over lands to raise a forest crop upon these lands without being burdened by excessive taxes. Counties as well as individuals may register land under the forest crop tax law. Many thousands of acres of land, now tax delinquent, could be registered by counties to their advantage.

The State of Wisconsin in return for the amount of money expends in taxes will receive a percentage return from the stumpage value of these lands when the forest crop will be harvested in the future. More than 160,000 acres of Wisconsin's cut-over lands were entered under the provisions of this new law during its first year of operation. Expert foresters throughout the country acclaim this new law as the most forward looking piece of forest land tax legislation ever enacted by an American legislature.

State Parks

In the regulation of state parks the new commission has inaugurated a policy of refusing to tolerate anything which will materially lessen the natural beauty of any state park or the enjoyment of the beauties that are there by students and lovers of nature. The commission believes that one of the best reasons for establishing and maintaining state parks is that every such tract becomes a conservation area where nature is allowed to regulate her own affairs without the interference of man. It is the intent of the commission that every area designated in Wisconsin as a state park shall remain forever an object lesson in conservation to the millions of people who enjoy these parks every year. Native flowers, shrubs, and trees, song birds, game birds, and wild game are safe in our state parks. The commission has taken pains to improve the sanitary conditions and the educational aspects in all the state parks, and they are all in better condition than ever before.

Wisconsin now has twelve regularly organized state parks, and the commission is doing all in its power to secure for another park the Copper Falls region, as authorized by the legislature. This combination of waterfalls and gor-

geous scenery in a small area makes this site most attractive and highly desirable as a state park; when the tract is secured the state will have a park entirely different from any of its other properties.

Work is going forward to secure several other areas which will become units in the state park program of Wisconsin.

One of these, Government Bluff, in Door County, between Green Bay and Sturgeon Bay, has been purchased from the War Department, with the small remaining balance in the parks purchase fund. The other two projects, the Northern Lakes region and the Kettle Moraine region, into which the commission is investigating, were both considered by the last legislature. Parks in these two areas will be highly desirable units of the state park system.

Fisheries

More scientific study and businesslike precision has characterized the propagation and distribution of fish during the past biennium. It is the intention of the department of fisheries not only to increase the numbers of fish raised and distributed by the state, but to so improve the quality of fish shipments that there will be a smaller mortality rate among the fish planted in Wisconsin lakes and streams. With this idea in mind, the department of fisheries has been distributing larger fish, which are hardier and which have a better chance of surviving after being planted in Wisconsin waters than have the smaller fry or fingerlings that have been planted in years heretofore.

The magnitude of the work of the department of fisheries can be realized when it is understood that last year more than 289,000,000 fish were distributed to Wisconsin waters. These fish included all of the more desirable game fishes, pike, trout, both lake and stream, bass, pickerel, muskellunge, whitefish, perch, etc. Each different kind of fish was planted in the Wisconsin waters which had been previously determined by scientific study to be best adapted for that particular kind of fish. Distribution work is carried on by the machinery of the fisheries department, which includes two large specially constructed automobile trucks, and an extra length railroad car, also specially constructed

to handle fish shipments. The Chicago and Northwestern railroad has cooperated with the department by furnishing free of charge the baggage cars to speed up the distribution work. In each different locality sportsmen or other interested individuals take care to see that the fish are properly planted.

To secure information as to how fish shipments have been handled in the past so that the distribution of fish in the future can be better regulated, the department of fisheries hired a field investigator to check up on this year's distribution. In his report the investigator tells of the conditions as he found them all over the state. It is thought that such an investigation will obviate the possibility of shipments going to improper persons or being poorly handled after receipt. The investigator also serves as a teacher of proper fish planting methods.

Commercial fishing and the removal of rough fish from lakes and streams also comes under the direction of the department of fisheries. A great deal of progress has been made in each of these two branches of endeavor particularly in the work of rough fish removal. The new commission has established a definite policy in regard to rough fishing, which prohibits the giving of exclusive contracts to any one fisherman, nor can any fisherman receive a contract for a longer period than one year. The commission believes that this new policy will lessen the danger of commercial fishermen profiteering unfairly upon the state, and certainly the results obtained from rough fishing during the past year have proven very satisfactory.

Law Enforcement

It is in the law enforcement phase of conservation work that the commission has made one of its greatest steps forward. A larger force of better trained wardens is in the field today than there has ever been before in the history of the state. Warden work is carried on today in an intelligent and fearless manner, and the results accomplished by this division have been more than satisfactory in the last biennium. In the second year of the biennium the warden force made the greatest number of arrests and convictions that have ever been made in a similar period of time. These

numbered 1513, a figure which will compare very favorably with the results obtained by the warden force of any state in the Union. Fines from the arrests made by the wardens during this second year of the biennium netted the school fund approximately \$54,000, and the sale of goods confiscated from law violators by the wardens brought nearly \$15,000 into the conservation fund.

Today the officials of the conservation commission feel proud of the warden force, and believe that while there is still room for improvement in some of the territories, all of them are being brought up to a high standard, and in the main the conservation wardens of Wisconsin are on the job and getting results. The commission's policy in seeking to prevent violations rather than to punish violators is working out very satisfactorily. Education by dissemination of conservation rulings and laws, warning by the conservation wardens by word of mouth and public statement, and their known and advertised presence in the communities as uniformed officers of the law are having an excellent effect. The commission believes that uniforming the men of the field force has had a decided deterrent effect upon law violators, and it has also had a good effect on the wardens wearing the uniforms. Today the conservation warden force in Wisconsin is a conscientious group of men, working for the best interests of conservation for the people of the state.

The day is long past when a recommendation from a "higher up" was sufficient to create a new game warden job for some friend or political henchman. The man who can qualify for a conservation warden's place today must be physically and mentally fit for the position. To give efficient service, a warden must be young enough to be active and ambitious, strong enough to stand hardships and long hours away from food, fire, and shelter, brave enough and firm to cope with habitual violators; he must be intelligent and quick thinking; and above all, he must have sound judgment. The applicant for a conservation warden's position today must pass a strict civil service examination and meet the demands of an exacting chief. As such men are found and as funds are available to meet their salaries and expenses, they will be added to the force of conservation wardens and

assigned to the duties of protecting the wild life of the state from the unlawful killer.

New Activities

The foregoing summarizes the progress made in the three older divisions of the work of the conservation commission. Of the four new activities projected by the commission, only one started operations before the biennium closed. This is the department of game, which has as its function the propagation and distribution of game birds in Wisconsin, just as the department of fisheries propagates and distributes fish. The new department is as yet small, but in time it will develop to the point where it will be among the more important activities of the commission.

Before the biennium closed a game farm had been established in Peninsula State Park, in Door county, under the supervision of the new department, and a start was made about June 1 in the raising of ring-neck pheasants. As the biennium closed the work was progressing very satisfactorily, and the results were such as to promise well for the future.

There are three other departments projected by the commission, a department of education and publications, a research bureau, and an advisory council. The department of education and publications is established in response to the need and demand for a wider public knowledge and understanding on conservation matters. It will be the intention of this department to educate the people of the state in conservation to the point where they will become "conservation conscious" and cooperative with the commission in all of its activities. Many publications and much publicity work will be needed to effect this program, and its success will be accumulative as the years pass by.

The research bureau is composed of men qualified by study and experience to be experts in the different matters pertaining to game diseases and other problems relative to the correct and scientific propagation and maintenance of a supply of wild game in our state. The members of this bureau are not paid, and generously devote their time and ability to the work of conservation in Wisconsin.

The advisory council is composed of thirty men, each of

them from a different part of the state, and it was created to assist the commission in establishing conservation policies. The members of this council, like the members of the research bureau, are unpaid, and devote their time to this work as a generous gift to the great movement of conservation.

No one could have been more helpful and more cooperative in building Wisconsin's conservation program than the legislators themselves. The governor and executive department, the attorney general's office, and other state officers and assistants have contributed time and effort. This cooperation has extended into many state departments. The department of agriculture, the state board of health, the railroad commission, the department of education, the highway and civil service commission, and many others are helping build the Wisconsin conservation program.

The College of Agriculture and the University of Wisconsin have lent their scientists and scientific knowledge to the work. Cooperation has been extended by the Lake States Experiment Station at St. Paul, and the Forest Products Laboratory at Madison, both Federal Government enterprises. The United States Department of Agriculture cooperated in all matters pertaining to forestry, fire protection, fish, game, and predatory animals.

With efficiency as the goal and common sense business methods as the means, the new state conservation commission of Wisconsin has worked out an organization in its short year of existence that is capable of handling all of the multitudinous problems of conservation work in this state. But the commission has not been satisfied with merely effecting an organization. It has formulated and acted upon policies and has already started many worthy conservation projects down the road toward an early and successful culmination.

RECOMMENDATIONS

FORESTRY

1. Continue to strengthen and expand the state effort in forest protection.

2. Establish state forests of suitable size and properly located in counties approving of such action by the state. To accomplish this, scattered forest lands now owned by the state should be sold and the money used to buy lands in the permanently located state forests, or exchanges made on the basis of equal values. The state should also buy tax titles from the counties to block up its state forest holdings.

3. Revise the forest crop law to iron out administrative details discovered during the first year of the operation of this law.

4. Increase the planting of desirable trees on state-owned lands at a rapid rate.

5. Increase the output from the state nursery in accord with the demand for planting stock from both private and public sources. This will eventually require additional nursery facilities.

6. Establish a state aid forestry program for counties.

7. Extend the work of education in proper forest practices among all owners of forest or prospective forest land.

8. Develop a system of roads and fire lanes in all state forests so that such areas will be more accessible and their protection made more feasible.

PARKS

1. Extend the system of state-owned park areas to include only the best of the naturally attractive areas in the state, together with a number of large areas of woodland on first class waters, either lakes or rivers.

2. Complete adequate sanitary, road, and trail improvements in every park, so that these public areas may be made accessible and safe for the health and comfort of visitors.

3. Acquire suitably sized areas of old growth timber along the state trunk highways, along well established trails between lakes and at other locations suitable for recreational use, such timber to be preserved and the areas made available as roadside parks.

FISHERIES

1. Purchase suitable areas on the Wisconsin side of the Mississippi river for the establishment of blue gill.

crappie, bass, and sunfish ponds, and lakes for rearing purposes.

2. Set aside parts of trout streams and certain areas of lakes to be known as fish refuges.

3. Encourage the building of trout rearing ponds in every county of the state where trout streams abound, as well as establishing rearing ponds for other kinds of fish wherever practical.

4. One new fish car to be added to our rolling equipment during the next biennium, to complete distribution equipment.

5. Resident license law be enacted that more money can be made available for rearing to larger size all kinds of fish for planting in lakes and streams.

6. Continue the intensive program of rough fish eradication in the inland waters of the state.

LAW ENFORCEMENT

1. Codify and simplify the fish and game laws so that they will be more readily usable and freer of loopholes.

2. Make an effort to unify the fish and game laws with those of our sister states, Minnesota and Michigan.

3. Make available sufficient funds to appoint as many new wardens as are necessary for different districts in the state, besides funds to provide about thirty extra wardens in the fall and fifteen extra wardens in the spring when the hunting and fishing seasons are at their height.

4. Post all large state game refuges according to the law; brush our fire lanes at least thirty feet wide on the boundaries of these refuges and employ refuge keepers wherever and whenever necessary to protect the game on and about the refuges.

5. Purchase necessary boats, engines, trailers, and other equipment to place the enforcement officers in a position to check illegal fishing and hunting in all localities.

6. Build a headquarters house for the Mississippi River district work at La Crosse on the Isle La Plume.

7. The commission looks with favor upon legislation which would result in pensioning the men who have been faithful in the department for a long term of years.

8. Purchase distinctive and attractive uniforms for all conservation wardens of a material which will not be duplicated and of a quality that will stand hard wear and can be worn in both warm and cold weather.

9. Increase wardens' salaries to the point where they will receive payment more commensurate with their work.

ADMINISTRATION

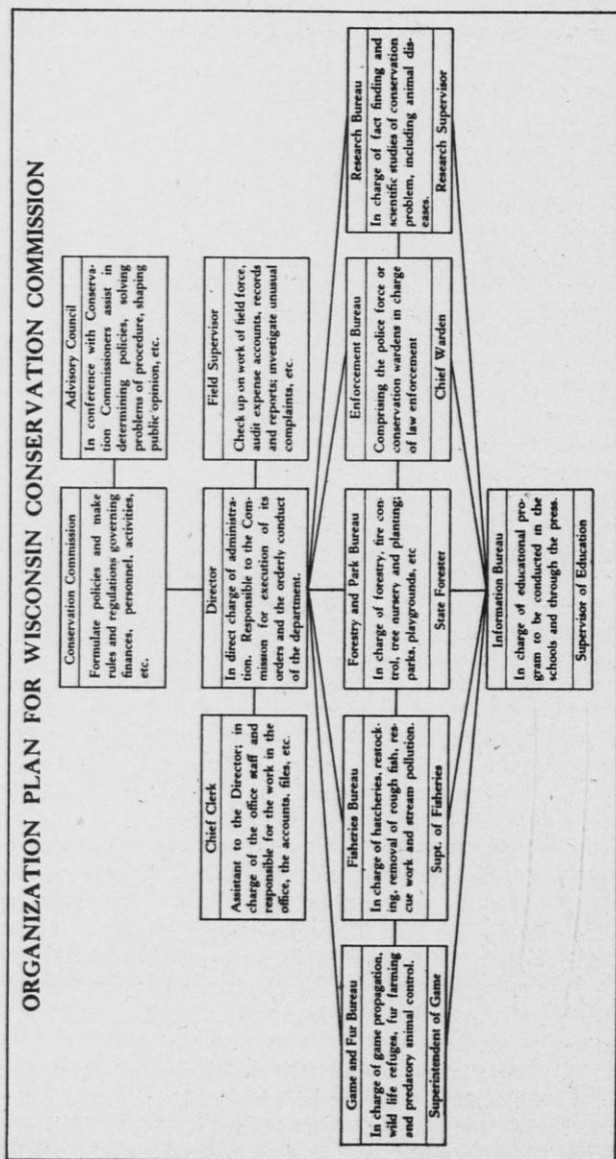
Because the work of conservation in Wisconsin has grown so tremendously in the past few years, and because of the thought that a broader viewpoint and wiser judgment should be secured, the last legislature changed the form of administration for conservation work in Wisconsin. Four and one-half years prior to August, 1927, the work of conservation had been placed under the direction of a one-man commission. This was changed because of the tremendous scope of the work and the different phases of the movement. The new conservation commission, which began to function in August, 1927, is composed of six unpaid commissioners, three of whom are chosen from the southern half of the state and three from the northern. It is this commission which today directs the policies of the conservation movement in Wisconsin.

The new type of management of conservation work in this state has been acclaimed throughout the United States as being probably the most efficient and far-reaching form of organization yet effected by any state. Other states have copied in part this form of administration, and many, many inquiries have come into the commission offices, asking for particulars and details as to the way in which Wisconsin directs its great work on conservation.

Having six men on the commission, each of whom comes from a different part of the state, which has its own particular conservation problems, makes it possible for practically all sections of the state to be represented in the body which formulates Wisconsin's conservation policies. This gives a breadth of viewpoint which would be impossible to attain without such an organization. Today all activities and policies of the conservation commission are considered from a business standpoint, from a legal standpoint, from a sentimental standpoint, from a practical standpoint, and from a sportsman's standpoint before they are enacted. It is only by a commission composed of several representative men that such a breadth of view and such a sympathetic understanding of conservation policies can be attained.

Organization

Wisconsin's conservation commission meets once a month at different points in the state for the consideration of problems relating to conservation work and for the establishment and directing of regulatory policies. The meetings are held at different parts of the state so that the commissioners may more conveniently attend, and also to make it possible to study the various conservation problems of Wisconsin at first hand. The officers of the commission are a chairman and a secretary.



A conservation director, chosen by the commission, is responsible to the commission for the operation of different conservation projects inaugurated by the commission, or by the several trained men directing conservation activities in the state. He is in charge of the commission offices, and the specialists at the head of the several departments are responsible to him. There is also an assistant to the director, who aids the conservation director and acts as office manager.

Five different departments constitute the working organization of the commission. Each of these departments, while separate in itself, correlates its work closely with the other departments, so that the result is an efficiently operated and interrelated group of independent projects under one director, working toward a common end, the conservation of Wisconsin's natural resources. Each of these separate departments has a superintendent especially trained in his own field, and he is directly responsible to the director and to the commission for the success of his own department.

Three of these separate divisions, the department of forests and parks, the department of fisheries, and the law enforcement department, are old established units of conservation activities. The two newer divisions, the department of game, and the department of education and publications, have barely begun their work, but in the future should rank with the older established departments, both in importance and in the scope of their activities. Two other branches of the commission's activities are incorporated in the research bureau and the advisory council.

It is the work of the administration force in the office at Madison to correlate these different activities and to carry on the office details and the huge correspondence of the commission. The duty of the administration force is to see that policies formulated and directed by the commission itself are inaugurated by the different departments and carried through to a successful conclusion.

The general administration work and correspondence in the commission offices in Madison are tremendous, and require a great deal of painstaking effort. It has only been by the establishment of a strictly businesslike system of administration that all of the work could be carried on. This system has been perfected within the last two years to a point where today the office work is done on machine-like schedule and is carried on satisfactorily to all.

Extra care and effort have been expended this past year in the collection of moneys due the commission, from its various activities. Prompt settlement of accounts due the commission means more money in the conservation fund. How vitally important this prompt settlement is to the commission can be realized when it is understood that last year by having a prompt accounting of all the money due the commission the conservation fund was enriched by approximately \$13,000 interest money—a much larger sum than it has ever received from this source in a similar length of time.

License Sale

The tremendous amount of office work can be illustrated by the fact that nearly 1,000,000 licenses of different kinds, permits, hunting tags, trap tags, etc., are issued and accounted for each year. All of these licenses and tags, even though they are sold to the users by subsidiary agencies, must be handled through the general office.

The work of the office, as far as the sale of licenses is concerned, has been enormously increased by the establishment of a new policy by the commission, that hunters, trappers, and fishermen holding licenses must also wear buttons. Each of these buttons is numbered serially and corresponds with the number on the license. It is thought by the commission that in the future the practice of wearing buttons will materially augment the income from license sale sources, because of the greater number of licenses which will be sold when this double method of checking has been fully established. Non-resident fishermen have worn buttons during the past year, and the practice will be extended to all holders of licenses sold by the conservation commission. This policy is in accord with the practice followed by most of the outstanding states in conservation work in the country.

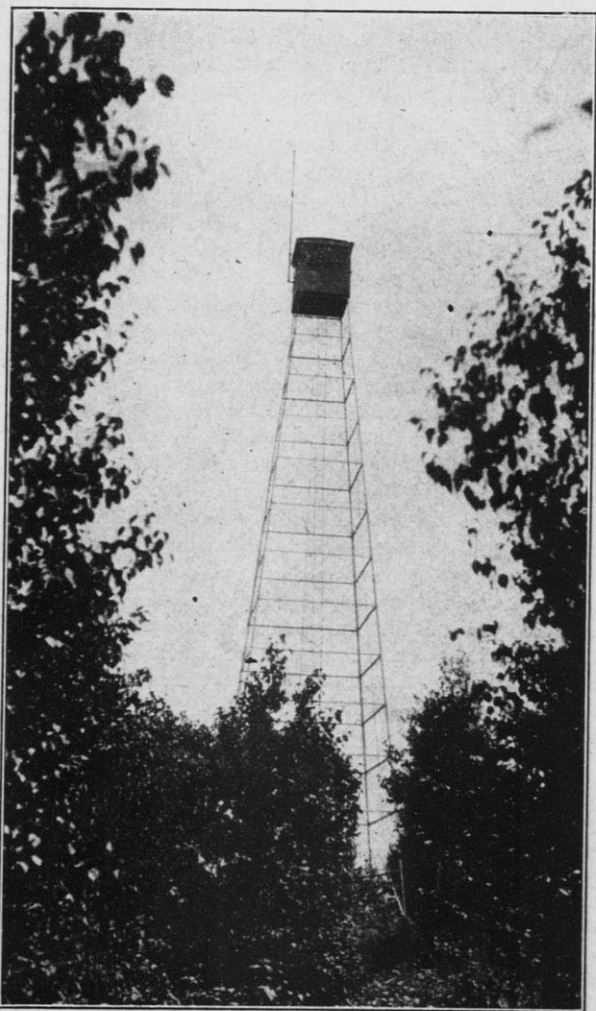
The personnel of the administrative force, in addition to the director, assistant to the director, and the five department heads, numbers fourteen. There are two field investigators, one of whom handles all fur farm matters, and the other of whom investigates and checks the commission's activities in general throughout the state. There are seven stenographers, a filing clerk, an auditor, two conservation clerks, and one general utility man who works in the commission offices in the Capitol Building.

The two field investigators work out of the office at Madison. Each of them, in addition to his work of investigation and checking, has warden authority. One of these men handles all fur farm matters. Wisconsin has three different kinds of fur farm licenses, those issued for (1) muskrats, (2) beaver, and (3) general licenses, which include raccoon, mink, martin, fisher, otter, and skunk. Before licenses can be issued for the first two kinds of fur farms, the investigator must check over the lands covered by the application and estimate the number of animals living on the land. These animals are sold by the state to the applicant. This field investigator of fur farms also gives advice on fur farm matters, and is continually checking, not only the applications for new farms, but the activities of already established fur businesses.

The work of the other field investigator is varied and general. He supplements the work of the office in checking on expenditures in the field, and he also looks after the activities in the far distant parts of the state, which other officials do not always reach. This investigator also checks the court cases to see that proper remittances are made to various state funds, and that cases are properly handled by the different counties.

It can readily be understood how vitally important the work of the

administration force is to the conservation program when it is realized that the personnel of the office force has been more than doubled during this past biennium. At the beginning of the biennium there were but three stenographers, where there are now seven, and there were but two clerks where there are now four.



Fire Lookout at Tomahawk Lake. One of the new type steel towers.

FORESTRY

A rising tide of popular support for an adequate forestry program for Wisconsin has characterized the biennium ending June 30, 1928. This is clearly proven by the following events: (1) The favorable vote on the constitutional amendment at the spring election of 1927 authorizing special legislation for the taxing of forests. This amendment served as the foundation for the subsequent enactment of the Forest Crop Law. (2) The appointment of a special legislative interim committee on forestry and public lands. (3) The enactment of the Forest Crop Law. (4) Legislation providing for a county forestry program. (5) The revision of the laws relating to forest protection. (6) An enabling act increasing the size of proposed national forests in Wisconsin.

Forest restoration is no longer a sentimental subject. It is not a matter to be determined by snap judgment nor by those in an enthusiastic frame of mind over the beauties of nature or of the out-of-door life. It is becoming more and more a business matter to be solved in an orderly and sensible manner. Its development must be compatible with our industrial and social needs and with the character of our soil and our economic circumstances. At no period has this subject received the profound consideration that it is receiving at present. Certain economic forces have been at work and have compelled the attention of many groups to the possibilities of forests. New forests must be grown on lands suited primarily for such a crop, in order that such lands may produce something of value for the owner as well as for the community, and this fact is being recognized today more than it has ever been recognized before. No conservation program in a state like ours can be complete without forestry as the fundamental activity. Wood-using industries, with the pay rolls they afford, are sustained in the long run only by new forests. The idea that all land will be farmed after being cut over—a theory that held sway for several decades at least—is now definitely abandoned and new forests are recognized as a productive and necessary crop from the soil. The recreational industry finds in growing trees an asset that for years it paid little or no attention to. It is a case of new forests or nothing on millions of acres of land.

It is true that as a people we are now experiencing a falling per capita consumption of forest products, and we may expect this trend to continue for some time to come. This fact should not make us unduly pessimistic about the need for forest restoration. It should, however, have its place in our computations as to the adequacy of the program we set up and of the funds allotted to support such a program. Wood is still a fundamental in our civilization and substitutes

for wood will not solve the forest problem. While our population increases, our per capita wood requirements decrease, but it is significant that the actual number of uses to which wood is now put has never been greater in our history. Many of the present day substitutes for wood are inferior to wood and will in turn be replaced by wood. Time will tell where wood is superior and where substitutes are the best. A point of equilibrium will eventually be reached where the per capita requirements will remain fairly stationary. Over and above all these considerations, however, we know that trees and products from trees affect our affairs in so many ways that without them we would find ourselves in distress. Our forest needs must be provided for. These needs will not be satisfied by an indifferent or ill-kept forest, but only by a forest of good productivity—intelligently and scientifically managed.

Fire Protection

The primary present day contribution of the state toward forest restoration is in the protection of forest lands from so-called forest fires. This activity is based on the policy power inherent in the state, which is a well established and long recognized fundamental right of government. Ours is a naturally wooded region. We have trees that reproduce vigorously and grow rapidly—if we give them a chance. To encourage nature to reclothe the land with desirable forest trees requires first of all an adequate protection of such land from fire. These fires may be large or they may be small, but irrespective of size, they are destructive to new forests. Fire has destroyed nature's plan of reforestation in Wisconsin, as it has in all other states. As a matter of fact, the natural reproduction now existing over great areas in Wisconsin in the face of the indifference to fire which characterized the situation for many years is really amazing.

The plan of organization for protection from fire enlists the aid of the Federal, state, and county governments. The state takes the direct responsibility for the organization. The Federal Government aids with an allotment of funds and with a limited field inspection service. The counties aid in the proper selection of field men and in the payment of half of the cost of actual fire suppression. Eleven forest protection districts have been laid out, embracing a total of approximately 14,000,000 acres. Each district is in charge of a forest ranger employed the year around. He is responsible for all affairs in his district. The present biennium has witnessed the establishment of five of these districts and the rapid development of the detection system of lookouts and telephone lines in all districts. Efforts are continually being made to prevent fire in the first place, to detect fires as soon as possible should they occur, and to suppress them as promptly as possible. In addition to this public effort, considerable aid has been received from private individuals and concerns in the respective fire districts. Such aid is always encouraged. There is still an unlimited amount of work to be done in improving the

efficiency in the different forest protection districts, particularly in connection with the training of men for fire fighting, the improvement of fire suppression equipment, the reduction of specific fire risk, and the general education of the local people toward better protection. A list of the fire prevention districts with other information follows:

<i>District</i>	<i>Counties</i>	<i>District Ranger</i>	<i>Head-quarters</i>	<i>Area Acres</i>
1	Bayfield Douglas	H. E. Percy.....	Brule.....	1,790,000
2	Washburn Burnett	P. A. McDonald..	Spooner....	1,150,000
3	Vilas Iron	P. C. Christensen	Trout Lake..	1,150,000
4	Forest Florence	A. Kirkpatrick..	Crandon...-	830,000
5	Marinette Florence	J. A. Beitz.....	Dunbar....	960,000
6	Price Ashland	Ray Hassett....	Park Falls..	1,400,000
7	Sawyer Rusk	Leif Steiro.....	Hayward...-	1,475,000
8	Oneida Lincoln	Henry Freund...-	Rhinelande	1,380,000
9	Langlade Oconto Shawano	Chas. E. Baker..	White Lake..	1,125,000
10	Jackson Monroe	Earl Hilliker....	Tomah.....	1,220,220
11	Adams Juneau Wood	J. W. Blatchley..	Friendship..	1,200,000

Trees for Planting

Under this heading is included the operation of the state-owned coniferous nursery located at Trout Lake in Vilas county. This nursery produces trees for: (1) reforestation of state-owned lands; (2) sale for private forestry planting. The output for the year 1926 was 1,200,000 trees; for 1927, 1,600,000 trees; and during the 1928 season more than 2,000,000 trees were shipped out of the nursery to be planted in different reforestation areas throughout the state. Approximately half of these trees were planted on state-owned lands and half were shipped out for private planting. During the biennium

the capacity of the nursery was doubled and in the near future the output will run from three to five million trees annually. A further expansion of nursery facilities is contemplated if the demand for both public and private planting increases in accord with the growing interest in forestry. The prices and terms under which trees are shipped for private forestry planting may be had on request to the conservation commission.

In cooperation with the commissioners of public lands the work of looking after the state-owned lands has been continued. The state-owned lands are now primarily located within the limits of the forest protection districts and special attention can now be given to protecting these areas, both from fire and trespass. Each district ranger is instructed to pay special attention to those areas owned by the state itself. State lands were further improved during the biennium by the planting of approximately 1,400,000 pine trees at the rate of 1000 trees per acre.

Forestry Extension

The co-operative arrangement between the University of Wisconsin and the conservation commission for forestry education among farmers and other small landowners has been continued during the biennium. This work increases in importance each year as a better understanding of ways and means to apply the lessons of forestry is obtained. Numerous field demonstrations in the planting of trees and in the improving of woodlots were held and contacts made with many owners of forest land.

The commission likewise cooperated with the Land Economic Survey conducted by the State Department of Agriculture. This survey included an intense investigation of the soil, forest, water, and economic circumstances in Bayfield county, and the conservation commission was especially interested in a determination of the rate of tree growth by species and on the different classes of soil.

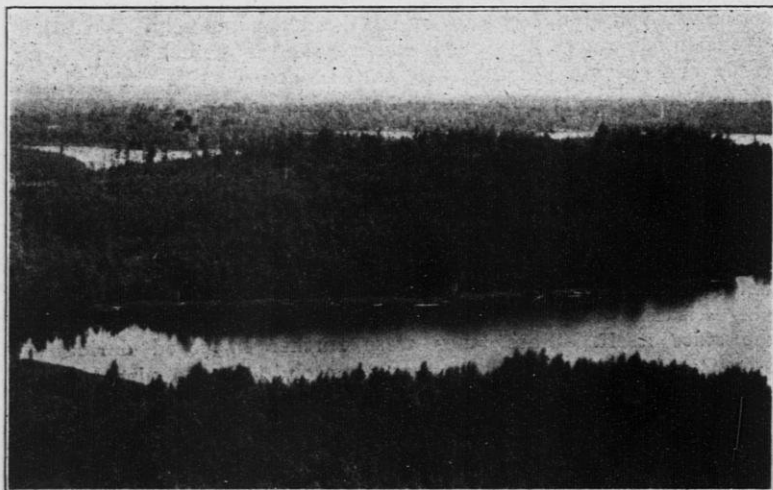
The conservation commission likewise aided in the Junior Forest Ranger program administered by the Boys' and Girls' club department of the College of Agriculture. This is an officially recognized work among boys of 14 to 16 years of age in tree planting and tree culture work and is part of the so-called 4-H program. A summer camp was conducted on state land at Wild Cat Lake in Vilas county and organized groups of Junior Forest Rangers are now located in a number of Wisconsin counties.

These three activities above mentioned are classed under the heading of forestry extension.

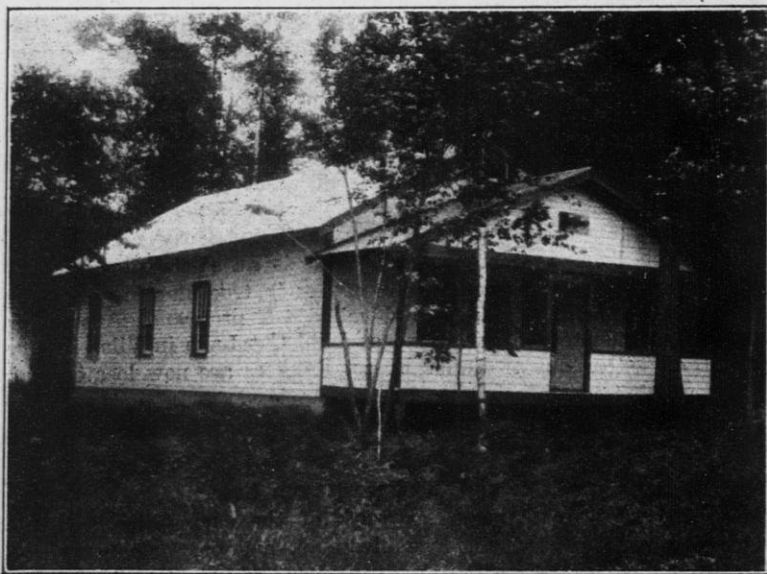
The Interim Committee and the Forest Crop Law

Turning now from the direct work of the commission to other advances in forestry during the biennium, and particularly to that part that has to do with the encouragement of private enterprise in forestry, we find the outstanding event to be the enactment of the Forest Crop Law by the legislative session of 1927.

Early in this session a special interim committee on forestry and



View from top of Lookout tower.



Ranger Station at White Lake.

public lands was appointed by the legislature. This committee consists of Senators Blanchard, Chairman, and Mueller, and Assemblymen Reis, Trembath, and Fronek. They set to work immediately after appointment. The session of 1925 had approved a proposed constitutional amendment relating to forest taxation. It had long been known that the method of annual taxation of forests was destructive to improved forestry practices. Under the direction of this forestry committee the approval of this proposed constitutional amendment was obtained early enough from the legislative session of 1927 so that the question could be submitted to the people at the spring election. The verdict of the people was favorable. Anticipating this verdict, groups of interested citizens met and formulated a proposed measure. The forestry committee called special hearings and this proposed measure was given full consideration. These hearings were well attended by the owners of land, lumber, paper, and pulp mill concerns or their representatives, county officials, and other citizens, and the final draft of this proposed law was recommended to the legislature. The legislature passed it, it was signed by the governor, and became Chapter 77 of the Wisconsin statutes—the so-called Forest Crop Law.

The Forest Crop Law is a cooperative measure between the owners of the land and the state. Under its terms the owner of not less than 160 acres (except farm woodlots) declares his land to be better suited for forestry than for any other purpose and that he intends to practice forestry thereon. Because of this intention of the owner, the state, with a view of encouraging forestry on such land, places the owner's taxes at a flat ten cents per acre per year, which is paid to the town treasurer. In order to compensate the town in which such lands may be located for what they might lose through the operation of this special tax law, the state becomes a partner in the transaction by also paying to the town treasurer a tax of ten cents per acre per year. A severance tax of ten per cent of the stumpage value of any forest products cut from any forest crop lands is provided for and the theory is that this ten per cent will reimburse the state for the advance payment made of the ten cents per acre per year to the local treasurer.

Every indication at the present points to the successful working out of this law and great things are expected of it. A large element in this success is due to the energetic and optimistic action of the conservation commission in connection with the administration of this law and the widespread favorable comment of the press, as well as the growing interest of landowners and county officials. The passage of this law was not the work of any one group but came through the efforts of many groups, all of whom were aware that a bold thrust had to be made for better forestry by cancelling the destructive effects of the annual ad valorem plan of taxes on the business of growing trees. It was likewise appreciated that all this had to be done without crippling the local communities in which such lands were located in their financial affairs. Approximately 175,000 acres were petitioned

for entry during the first year of administration, of which approximately 160,000 acres were finally approved as forest crop land.

In the long run the Forest Crop Law will accomplish the following results:

- (1) Provide a definite encouragement of forestry by private enterprise;
- (2) Stabilize local finances from lands of relatively low fertility;
- (3) Isolate lands that are truly forest lands and thereby put an end to the question as to whether such lands are agricultural or non-agricultural;
- (4) Aid in the solution of the delinquent tax question in many counties.

A recent opinion from the attorney general's office states that counties may enter land owned by them under the Forest Crop Law. This insures to any county a definite state aid on any lands they may acquire by the taking of tax deeds to delinquent descriptions, provided the county believes such lands are forest lands and are willing to manage them accordingly. Full consideration of this opinion will indicate that it has great possibilities as an aid in the solution of the delinquent tax situation, which has been a troublesome question, particularly in the northern counties, during the past few years.

Altogether, the Forest Crop Law is one of the most important pieces of forestry legislation that has ever been enacted in this state. The conservation commission realizes the inherent difficulty in the business of growing new forests by individuals or concerns, and with that thought in mind the benefit of the doubt is always given to the owner of land who seeks assistance through the operation of this law. The law is strongly recommended to all who own land suitable for forestry. The commission has great hopes for a rapidly expanding private forestry in this state. Aided by the encouraging features of this law, several substantial Wisconsin companies have embarked on definite forestry programs and industrial forestry is a very positive thing in the affairs of Wisconsin at the present time. Among the leaders in this industrial forestry movement are: (1) The Nekoosa-Edwards Paper Company, Nekoosa, Wisconsin; (2) The Goodman Lumber Company, Goodman, Wisconsin; (3) The Tomahawk-Kraft Paper Company, Tomahawk, Wisconsin. These companies have made especially noticeable progress during this biennium and their activities are intensive and include the planting of forest trees, selective logging, blocking up lands for forestry purposes by purchase, and the organization of definite forestry departments under charge of practical foresters. Other companies have started forestry operations, but not on the scale of those listed above. Among these companies are: (1) The Flanner Lumber Company, Blackwell, Wisconsin; (2) The Connor Lumber Company, Laona, Wisconsin; (3) The Cornell Woods Products Company, Cornell, Wisconsin; (4) The Holway Land Company, Wausau, Wisconsin; (5) The Yawkey-Bissel Lumber Company, White Lake, Wisconsin; (6) The Hold Lumber

Company, Oconto, Wisconsin. In addition to these companies, all of whom are the owners of large areas of land, there are many individuals whose interest in real, not apparent, forestry has increased during the biennium just closing.

The County Forestry Law

Sponsored by Assemblyman Fronck of Langlade county, the legislature of 1927 passed the county forestry law. Under the provisions of this act counties are authorized to practice forestry on any lands owned by them. This authority is subject to a referendum by the people of the county. Two counties, viz., Langlade and Adams, are now arranging their affairs for such a referendum, and other counties are bound to follow. This is a very constructive piece of forest legislation. The county forestry law is a fine thing for the counties to take advantage of and is recommended for their earnest consideration by the conservation commission.

Revision of Laws

As has already been noted, the laws relating to forest, marsh, and field fires and the protection therefrom were completely revised in the session of 1927. This revision defines and places the authority and responsibility for the prevention, detection, and suppression of such fires in the conservation commission. This revision provides for definite methods for the payment of fire fighters. It authorizes the establishment of forest protection districts and in other ways it gives Wisconsin an adequate law relating to the protection of lands from forest fires.



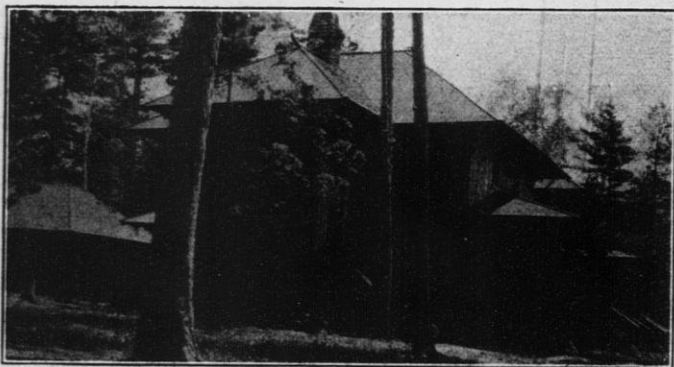
Planting of Norway pine twelve years old. The trees are fourteen feet high

National Forests in Wisconsin

During the biennium, as a result of prior congressional legislation which authorized an extension of the eastern national forests, an opportunity to consider such establishments in Wisconsin came to a pass. The legislature in 1927, by an enabling act, authorized the acquisition of not to exceed 500,000 acres for national forest purposes in Wisconsin. Considerable discussion followed and a number of prospective purchase areas were laid out by federal forest officials. Several of the counties have given their approval for the purchase of lands within their borders for such purposes. No actual purchases have been made, however, but the necessary approvals as provided by law, including that of the conservation commission, have been given. The final approval must come from the national forest reservation commission, and it is anticipated that in the near future such approval will be forthcoming.

Federal agencies are of great assistance in the successful operation of the forestry scheme in Wisconsin. Some federal money is appropriated for use in Wisconsin, and federal men have always been more than willing to give their time and advice to the solution of Wisconsin's problems. The Forest Product Laboratory at Madison and the Lake States Forest Experiment Station at St. Paul, Minnesota, have both been factors of vital importance in Wisconsin forestry.

Summed up, the biennium ending June 30, 1928, has been one of very substantial progress toward the accomplishment of adequate forest restoration in this state.



Forestry Headquarters at Trout Lake.

STATE PARKS

Wisconsin now possesses thirteen areas designated as state parks. This is one more than reported on for the preceding biennium. The additional area is known as Government Bluff, located near Sturgeon Bay in Door county. Its acquisition occurred at the close of the present biennium through purchase from the federal government, as provided for by a special act of Congress, of an area of approximately 1100 acres. This land was a reserve administered by the war department. It has a very pleasant frontage on Sturgeon Bay, with sharply rising ground from the water's edge, well covered with timber, both virgin and second growth. It will be a valuable addition to the state park system.

In other respects the biennium just closing witnessed a steady advance in park improvements. The road facilities are better now than they have ever been. The new road into the Nelson-Dewey park is just about completed, and improvements were made on the roads leading to, or in, the Peninsula, Devil's Lake, Cushing, Interstate, and Northern Forest parks particularly. The aid for state park roads provided in the state highway law is a very valuable and meritorious arrangement and is serving the people of Wisconsin in making these park areas more and more accessible. Improvements were also made in the sanitary facilities, especially on the Devil's Lake, Nelson-Dewey, and Interstate park areas. The supplies of drinking water are steadily being improved. Protective improvements at dangerous points were made at the Pattison and Peninsula parks. Additional picnic and camping equipment was installed in all of the parks.

It is the consensus of opinion that the summer visitors to the state parks are increasing. The increase was not as pronounced during the biennium herein reported on as it was a few years ago. No precise figures are available, but attempts are being made to get reports annually on attendance. The state parks of Wisconsin are free to all and visitors come and go as they please, so that at the best only an estimate of attendance can be made. Approximately 2,000 camping parties pitched tents in Interstate Park during the season of 1928. While the summer visitors are undoubtedly increasing, it is significant that the winter visitors are decreasing. Observation indicates that ten years ago more people spent time on the state parks during the winter than do at the present time.

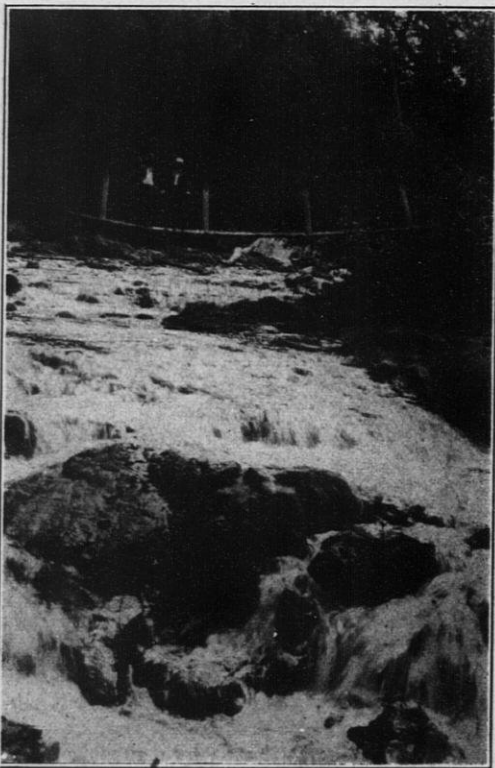
All the state parks are game refuges. The observations of the park superintendents indicate that while most of the areas are relatively small to serve as game refuges, this feature is meeting with success. For instance, mink have increased in numbers at Devil's

Lake park, deer are increasing in Peninsula park, and partridge have thrived in the Brule area. Of course, on the larger areas, such as the Peninsula and Northern Forest parks all kinds of wild creatures, including song birds, find splendid refuge, and this policy has resulted in a noticeable increase in their numbers. This contribution of the state park areas, while not a controlling one, is nevertheless an important item in game affairs.

Need More Parks

In addition to the present state parks, it is becoming increasingly evident that sizeable areas of natural wilderness, embracing lakes, rivers, forests, and wild life, are necessary in a well-rounded state park program.

Wisconsin is well located and possesses the requisite advantages of climate and scenery, good roads, and living accommodations to be the natural playground for the millions to the south of us. Our thousands of forested lakes and trout streams, the scenic and historic



View of Tyler's Fork in Proposed Copper Falls Park

north and east shores washed by Lake Superior and Lake Michigan respectively, the bluffs of the Mississippi on our west, unexcelled hunting and fishing, a fall forest coloring unequalled anywhere, and a cool, invigorating summer climate are some of the attractions offered to the tourist, whether of our own or an adjoining state. But in addition to that, there have been, and will continue to be, attractive public areas set aside at convenient places in the state, where these tourists may find good water, sanitary living conditions, and the rough comforts that one would expect on an outing. The tourist driving the large car as well as the man driving a small one will be provided for either at the regular hotels or resorts along the way, or in his own tent, should he care to carry one. In this general plan the state parks play an important part.

It is the opinion of the conservation commission that only the most outstanding, the most unique, or most historic areas in the state should be included in the state park system, and that these areas should be selected with the utmost care. Embracing so many attractive places for park purposes, it is obvious that the state cannot own and take care of them all. Therefore, it is felt that a series of county and township parks should eventually supplement the state park system, and these areas should be owned and managed by local bodies. While they will primarily serve local needs, they should nevertheless be public in their nature, so as to provide for the tourist and furnish him with a spot where he knows he will be welcome.

Wisconsin State Parks

Name of Park	Location	Area	How Acquired	Original Cost	Date Established
Peninsula.....	Fish Creek, Door county	3,400 acres	Purchase	\$104,232.41	1910
Devil's Lake.....	Baraboo, Sauk county	1,400 acres	Purchase	216,181.72	1911
Nelson-Dewey.....	Wyalusing, Grant county	1,650 acres	Purchase	46,139.88	1917
Pattison.....	Superior, Douglas county	660 acres	Donated	-----	1919
Interstate.....	St. Croix Falls, Polk county	580 acres	Purchase	22,577.75	1895
Perrott.....	Trempealeau, Trempealeau county	950 acres	Donated	-----	1917
Rib Hill.....	Wausau, Marathon county	160 acres	Donated	-----	1922
Brule.....	Brule, Douglas county	640 acres	Donated	-----	1906
Cushing.....	Delafield, Waukesha county	8 acres	Donated	-----	1915
Tower Hill.....	Iowa county	60 acres	Donated	-----	1922
Old Capitol.....	Belmont, Lafayette county	2 acres	Donated	-----	1923
Government Bluff.....	Sturgeon Bay, Door county	1,100 acres	Purchase	1,307.63	1928
Northern Forest.....	Trout Lake, Vilas county	Approx. 100,000 acres	Purchase	Approx. 350,000.00	1925

FISHERIES

In artificial fish propagation, as in most other phases of conservation, Wisconsin has always been among the leaders of the several states. Fish culture work has been carried on continuously in this state since 1873, in which year the sum of \$500 was appropriated to be expended under the direction of the United States Commissioner of Fisheries for the artificial propagation of fish for our lakes and streams. As was usual with most fish propagation enterprises at that time, salmon received the bulk of attention, and as near as can be estimated, 20,000 salmon were hatched at a private hatchery located at Waterville, in Waukesha county, and planted in lakes around Madison and Lake Geneva. The following year, under Chapter 253 of the Session Laws of 1874, there was appointed a commissioner of fisheries and the legislature appropriated \$360 to carry on the fisheries work.

From the feeble efforts of those early days in the '70's of last century to the last year of the past biennium, when more than 289,000,000 fish were distributed by the Wisconsin conservation commission, is a long, long journey, and it is a journey freighted with successes and failures, with advances and setbacks, occasioned by an ever groping and ever experimental method of work. From the beginning, when Wisconsin was one of the first states to establish fish commissions, to the present, when Wisconsin still stands well out among the leaders in this work, scientific experiment has always characterized Wisconsin's work in fish culture. The work has expanded, and the results accomplished have increased with the years.

The first hatchery for the artificial propagation of fish in this state was established in the year 1875. It was located about five miles out of the city of Madison, and at that time it was known as the Nine Springs Hatchery. Later its name was changed to the Madison Hatchery, under which name it is still in operation. Every year millions upon millions of rainbow and brown trout eggs are collected from the fine stock of brood fish held in the ponds on the grounds at this hatchery.

Twenty-two Hatcheries

Today Wisconsin has twenty-two hatcheries in operation, at Madison, Bayfield, Wild Rose, Minocqua, Delafield, St. Croix Falls, Sturgeon Bay, Sheboygan, Osceola, Lakewood, Hayward, Westfield, Spooner, Eagle River, Tenney Park, Sparta, Eau Claire, Brule, Haugen, Wisconsin Rapids, Birchwood, and Wausaukee. It is in these hatcheries that the tremendous numbers of fish are raised each year by the Wisconsin conservation commission, and it is from these

hatcheries that the shipments of fish are made to every part of the state to keep Wisconsin's waters well stocked with these fine food fishes which made the Badger State famous throughout the country as a mecca for fishermen.

Aside from the practical use as breeding and rearing places for fish, Wisconsin's fish hatcheries serve another purpose to the people of the state. Almost all of them are beauty spots, and many of them have been so arranged that there are ample facilities for sightseers to visit and picnic. That the people of the state appreciate this extra service of the hatchery sites is shown by the great numbers who visit the hatcheries every day during the spring, summer, and fall. The St. Croix Falls, Bayfield, Wild Rose, and Madison hatcheries particularly illustrate this use, and as many as 15,000 people have been seen on the grounds of any one of these hatcheries on a single Sunday during the summer season. It is particularly on account of this use of the hatcheries that the department of fisheries takes so much care in keeping the buildings well painted and sanitary and the grounds attractive.

Improvements have been made in all of the hatcheries during the past biennium. All the hatchery buildings in the state have been repainted during this past two years, and there have been major improvements in working equipment at several of them. At the Bayfield hatchery a 1300 foot 24-inch pipe line has been installed to furnish an adequate supply of good water for hatching and rearing purposes. At Delafield all the bass ponds have been repaired with concrete walls, and at the Madison hatchery two concrete raceways have been constructed through the old open pond. The old pond has been filled in, which adds a great deal to the beauty of the grounds, as well as providing space for holding ponds. At Wild Rose the car barn which has housed the large railroad fish car owned by the commission has been lined and arranged so that now the fish car can be painted by the men at the hatchery when necessary. A new and modern hatchery building has been built at Westfield, which brings that hatchery up to par among trout hatcheries of the state.

Distribution of trout from hatcheries to the railroads has been tremendously speeded up during the past biennium by the purchase of two new specially constructed automobile trucks, to carry the cans of fish from the hatcheries to the railroad. Each of these trucks can carry in one load 100 cans of fish, so that one trip by the two trucks can bring the 200 cans which the railroad fish cars will hold from the hatcheries to the tracks.

The benefits of using these trucks can be shown by using the example of the St. Croix Falls Hatchery. Trout distributed from this hatchery must be taken to Hudson, about forty miles away. As it takes about 45 minutes to load 100 cans with fish, and at least two hours to haul them the 40 miles, the trucks had to be constructed in such a way that each can could be supplied with air from the time the fish were put in until they were delivered to the railroad station. Each of these trucks is supplied with a special air compressing unit,

with pipe lines running lengthwise back and forth across the body of the truck, so that an air pipe line could be put into each can in its place on the two shelves which run the full length of the truck, as well as on the floor. Before the loading process is begun, the air tank on board the car is pumped up to about 125 to 150 pounds pressure, and as soon as the first can of fish is put on the truck, a rubber tube supplied with a square piece of basswood on the end is placed in the can. The air passes through the pores of the wood and introduces oxygen into the water in very fine bubbles. It is necessary to introduce this oxygen into the cans in this way to prevent all the oxygen from immediately going out, as it would if the air were merely blown into the can through an open tube in large bubbles.

Similar aerating devices are used on the railroad fish cars, three of which were used by the commission during the past biennium. The commission owns one railroad fish car, the Badger No. 2, and the Chicago and Northwestern Railroad graciously furnishes two baggage cars to the commission, free of charge, to use in this distribution work. By the use of these scientific, up-to-date aerating devices, fish can be distributed to any part of the state from the large hatcheries, and can arrive in excellent condition. The speed with which shipments of fish can be taken from the hatcheries to the railroad cars because of the new delivery trucks makes it possible to reach practically any point in the state within 24 hours after the fish are taken from the hatchery ponds.

Propagate Many Fishes

Nearly all kinds of fine food fishes that live in fresh water are distributed by the commission. Brook, brown, rainbow, and lake trout, and whitefish are hatched for our cold water streams and lakes and for Lake Superior, Green Bay, Lake Michigan. Bass, blue gills, pike, muskellunge, pickerel, white bass, perch, bullheads, and many other kinds of pan fish belonging to the sunfish family, are dis-



One of the new specially constructed trucks used in fish distribution.

tributed by the commission, either from the different hatcheries, or from the different fish rescue operations carried on by the commission on the overflowed lands of the Mississippi and Wisconsin rivers. Thirteen of Wisconsin's hatcheries devote much, if not all, of their attention to the propagation and distribution of different kinds of trout, and it is almost entirely due to the activities of these different hatcheries that Wisconsin retains its enviable reputation as a state for trout fishing. Wall-eyed pike, different kinds of basses, muskellunge, whitefish, perch, and pickerel are raised in other Wisconsin hatcheries. Appended to this report is a statement by hatcheries of the numbers of fish raised and distributed from each hatchery for each of the two years in the past biennium.

During the biennium just preceding the last one, the artificial propagation of muskellunge was carried on in an extensive experimental way at the Minocqua hatchery. Results obtained from this experimentation were so satisfactory that they warranted the development of this work as a regular part of the activities of the department of fisheries. Wisconsin is probably more famous as a muskellunge state than any other state in the country, so it is altogether proper that the department of fisheries should strive to maintain this enviable reputation.

Much difficulty is encountered in the propagation of muskellunge, because the eggs of these fish are so delicate. During the last year of the past biennium enough eggs were taken to hatch out more than 135,000 muskellunge. Most of these were planted as fry, but approximately 2,000 were held in the rearing ponds at the Minocqua hatchery until they reached the muskellunge fingerling size, which is approximately nine inches. Because small muskies grow so fast and because they must be fed on live fish, obtaining food for them is one of the biggest problems in muskellunge propagation. Two men have been kept busy continually searching the country around the Woodruff hatchery to find enough live rough fish minnows to feed the small muskellunge in the rearing ponds there. If muskellunge rearing is to develop in Wisconsin, it may be necessary in the future to ship carloads of rough fish minnows from the southern part of the state to the northern hatcheries, where the fish will always be raised.

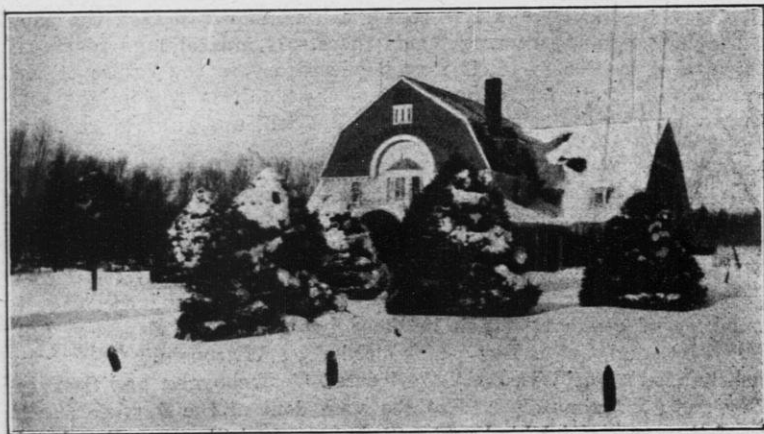
Commercial Fish Propagation

Wisconsin is the only one of the Great Lakes states that carries on very extensive commercial fish propagation work. Commercial fishing in the outlying waters has always been an important industry in Wisconsin, and it is the intention of the department of fisheries to perpetuate this industry, which can be done only by increasing the numbers of commercial fish in those parts of Lake Superior, Lake Michigan, and Green Bay which border on Wisconsin. Commercial fish hatcheries of Wisconsin are located at Sheboygan and Sturgeon Bay and approximately half of the work done at the Bayfield station is of the commercial kind. The Sheboygan and Sturgeon Bay hatcheries each have a capacity of about 16,000,000 lake trout and 50,000,000

whitefish eggs, and there are also millions of whitefish and lake trout distributed from the Bayfield hatchery each year. The Bayfield station received help from the United States Bureau of Fisheries each year to the extent of from one to two million lake trout that are hatched at the Federal hatchery at Duluth for planting in Wisconsin waters.

Because practically every kind of the finer varieties of food fishes are found in Wisconsin waters, the commission does not believe that it would be wise to introduce new varieties, but for the benefit of the commercial fisheries, experiments have been carried on at the Bayfield plant in the introduction of Pacific salmon for the waters of Lake Superior. This experiment was carried on for approximately five years, preceding the present biennium, but during the last two years no work has been done along this line, because it has been impossible to get any more salmon eggs from the west. However, although the experiment had gone on for five years, it is only occasionally that one of the salmon is caught by any of the commercial fishermen in Lake Superior.

It is probably in the removal of rough fish from Wisconsin waters that the conservation commission has made its greatest progress during the past two years. A new policy regarding the eradication of rough fish was adopted by the new commission early in its history, and today the interest of the commission is directed entirely toward the removal of detrimental rough fishes rather than to the interests of rough fishermen. No more are exclusive contracts given for certain waters, nor are any contracts made for a longer period of time than one year. It is thought by the commission that competition among the rough fishermen will lead to larger catches and that the short contract will make each fisherman get all he can in the way of rough fish from a certain body of water during the time of his



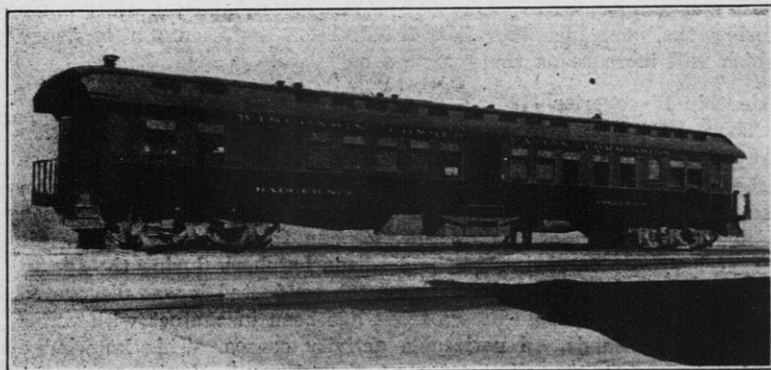
Winter Scene at Bayfield Hatchery.

contract. Certainly the results obtained under the new policy during the one year of its operation have justified the hopes of the commission. In the lakes around Madison, for instance, more rough fish have been removed during this one year than there had been in any five year period before. A tremendous number of rough fish, particularly carp, have been removed from Madison lakes this year, and the state's share of the income derived from the sale of these rough fish reaches quite a respectable figure.

Fish Rescue Work

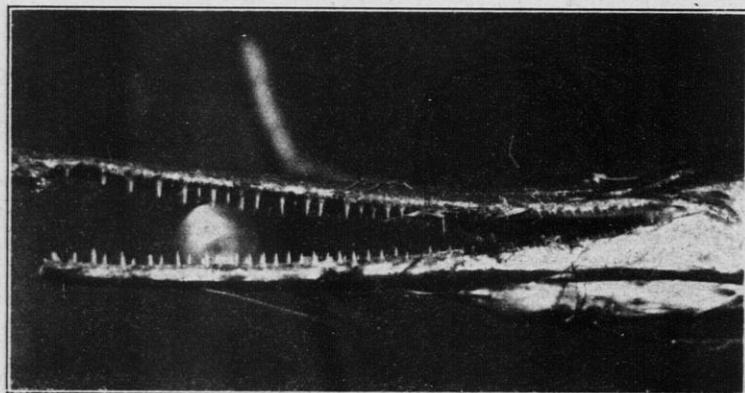
Among the activities of the department of fisheries other than the propagation and distribution of trout from the hatcheries is the fish rescue work which is carried on each year when conditions make it possible, from the overflowed lands in the Mississippi, Fox, and Wisconsin river valleys. The tremendous demand for fish rescued every year by the commission makes this operation one of continually increasing importance. During the second year of the past biennium the commission rescued 14,707,700 miscellaneous fishes from land-locked sloughs in the Mississippi river valley. This work is carried on by special crews of men who travel up and down the river valleys, wading into the land-locked pools which have been caused by the receding waters in the river. Although the commission distributed more than 14,000,000 fish rescued in this way, this number is infinitesimal when compared with the number returned to the Mississippi River. Were it not for the work of the fisheries department of the Wisconsin conservation commission and the fisheries departments of the federal government and of the other states bordering the river, hundreds of millions of fish would perish every year in these land-locked pools. While some of the fish rescued are large, most of them are of a size well adapted to planting in inland lakes and streams where they have a good chance of growing to a catchable size.

The scientific precision and businesslike efficiency that characterizes



The Badger No. 2 Fish car.

the operations of the fisheries department were more in evidence during the past biennium than in any previous time in its history. Methods of fish propagation have been employed, and the chances for loss in fish culture have been largely minimized by the application of scientific methods, arrived at from research work carried on by the department of fisheries. One of the most important tendencies during the past biennium has been the holding of fish until they are of a fingerling or larger size before distributing them, rather than planting fish in the small fry stage. Numbers of casualties among small fish are considerably greater than when the larger fish are planted. Consequently, it is the intention of the department of fisheries to



Head of a gar pike, one of our most destructive rough fish.

distribute and plant fish which are larger and can be caught by Wisconsin citizens as soon as possible. More pains have been expended upon rearing fish than ever before. Rearing ponds have been built and maintained at many of the hatcheries, and the start made during the past biennium in this direction represents a tendency which will increase as the years go on.

Scientific Discoveries

There have been two outstanding discoveries made along scientific propagation lines during the past biennium by the department of fisheries. One of them concerns the length of time which male sperm remains active after it comes in contact with water, during which period fertilization of the female egg can take place. Microscopic researches were carried on in the Madison hatchery during the spring of 1927, and from the extensive research conducted it was discovered that after the milt from brown trout has been in contact with water for sixteen seconds, all noticeable activity ceases. This knowledge is invaluable to the elimination of the element of chance in the fertilization of trout eggs, and its use can be appreciated by the

wonderful results the Wisconsin conservation commission has had in trout culture recently. By use of this knowledge, milt, which contains the male sperm, can be introduced into the dry pan with the female eggs at just the right time before water is added so that a maximum fertilization will take place. This tends to eliminate one of the greatest reasons for the tremendous loss in natural reproduction of fish, which was the lack of timeliness in fertilization.

The other discovery is of particular importance to Wisconsin. It grew out of what was called the iodine experiment in the waters of the Madison hatchery. It had been noted that some of the small fish in rearing ponds at this hatchery had goitrous infections. Fish in Wisconsin waters are particularly subject to such infections, as they are also in the waters of the upper peninsula of Michigan, and in Minnesota. With the cooperation of university scientists, the Wisconsin conservation commission carried on an experiment which is still continuing, and which consists of placing certain amounts of iodine or iodine compounds in the waters of certain rearing ponds. Other ponds are left without iodine. The iodine treatment was begun about the time that the small fish began to feed, as the goitrous growths do not appear until fish have reached this stage of development. No trace of this goitrous growth could be found in the fish in the water which had been treated with iodine, and the treated fry grew more rapidly than the uncontrolled fry till at the age of six months they were found to be four times as large as the untreated fry at the same age. Very few treated fry died, whereas in the twenty years previous practically all the fry which were hatched at this hatchery had died, unless they were removed to other waters. The thyroid from the fry of the treated group was found to be smaller with no traceable infection, while the untreated group showed general infection. From this study it is concluded that iodine prevents the appearance of this goitrous condition in trout fry in Wisconsin waters. This knowledge will prove to be very valuable in regulating water conditions in the rearing ponds of Wisconsin hatcheries in the future.

One tremendous advance made by this department in the furnishing of information by which to regulate trout distribution is the check up which was inaugurated during the past season. A field investigator checked up on practically all of the shipments of fish for the commission, investigating the waters in which they were planted and the kind of treatment the shipments received at the hands of the people who had ordered them. This field investigator also acted as a teacher of proper methods of fish planting. Trout shipments in the future will be distributed in the light of the knowledge received by the investigation carried on by this man during the past year.

The activities of the fisheries department of the conservation commission have grown proportionately to those of the other departments, and it is expected that the growth will continue during the next biennium. At the present time the commission is planning to build hatcheries at Crystal Springs, near Antigo, at Fort Atkinson, and at

some other place in the southeastern part of the state. These three new hatcheries and additions to and improvements in the existing hatcheries will probably place Wisconsin in the lead among mid-western states in fish culture work.

Perhaps even more during the past biennium than at any time previously the federal bureau of fisheries has cooperated with the Wisconsin department in furthering the work of fish propagation and distribution. At all times the advice and experience of Federal men has been at the disposal of the Wisconsin commission, and there have been many times when the Federal and State men have worked together. This cooperation is particularly evident in the Mississippi river rescue work.

The following is a list of the hatcheries and the superintendents of all hatcheries which have permanent men in control:

Wisconsin Fish Hatcheries

Hatchery	Superintendent
Madison	Frank Meade
Bayfield	Chris Faulkner
Wild Rose	Fred Hewitt, Jr.
Minocqua	Wendel Anderson
Delafield	Robert Lowerre
St. Croix Falls	Ben Durkee
Sturgeon Bay	Percy Weaver
Sheboygan	John Maag
Osceola	Locy Stewart
Lakewood	Henry Larson
Hayward	Cliff Hill
Westfield	Ernest Hackman
Spoooner	Fred Bishop
Eagle River	William Miller
Tenney Park	Frank Meade
Sparta	Frank Suthers
Eau Claire	Lawrence Hoverman
Brule	Fred Walquist
Wisconsin Rapids	Fred Leisch
Haugen	Henry Milke
Birchwood	Leon Jensen
Wausaukee	

Besides the general program of rough fish eradication in Wisconsin waters which is carried on by contractual arrangements between the conservation commission and commercial fishermen, the legislature specifically ordered work to be done in removing rough fish from certain northern waters and from the Lake Winnebago district. From the northern waters during the biennium the commission has removed 312,000 pounds of undesirable fish, most of which were suckers. The accompanying table tells of the work done in the Winnebago district.

**ROUGH FISHING OPERATIONS, DECEMBER, 1927,
TO DECEMBER 30, 1928**

Removal of Rough Fish from Northern Waters

		No. of Suckers
From May 14 to May 26...	Big St. Germain.....	14,430
From May 14 to May 26...	Lost Lake.....	3,860
From May 14 to May 26...	Twin Lake.....	20,550
From May 14 to May 26...	Stone Lake.....	4,825
From May 14 to May 26...	Sand Lake.....	2,000
From May 14 to May 26...	Lake Vieux Desert.....	22,360
Total.....		68,015

68,015 suckers at 3 lbs. to the fish—204,045 lbs.

Removal of Rough Fish from the Winnebago District

	Law- yers	Suck- ers	Gar- fish	Sheep- head	Dog- fish	Carp	Total	
Dec.....	3,803	185	1,496	35	150	20	5,898—	5,689
Jan.....	3,549	245	1,037	25	134	25	5,015—	5,015
Feb.....	1,854	414	372	26	31	2	2,671—	2,699
March.....	1,321	135	103	23	30	7	1,619—	1,619
June.....	6	415	11	5,552	-----	14	5,998—	5,998
July.....	5	903	11	8,714	34	79	9,746—	9,746
Aug.....	7	1,139	9	7,846	7	101	9,109—	9,109
Sept.....	171	810	4	3,224	35	58	4,302—	4,302
Oct.....	3,044	2,054	68	4,718	269	43	10,196—	10,196
Nov.....	201	338	28	2,667	9	1	3,244—	3,244
Dec.....	2,700	102	114	-----	8	-----	2,924—	2,924
	16,661 ×3	6,740 ×3	3,253 ×3	33,830 ×3	707 ×3	350 ×3	60,422—	60,541 ×3
	49,983 #	20,220 #	9,759 #	98,490 #	2,121 #	950 #		181,623 #

181,623 # Winnebago
204,045 # Northern Waters

385,668 # Rough fish

LAW ENFORCEMENT

The financial success of conservation work in Wisconsin must of necessity be largely due to the vigilance and efficiency of the law enforcement division of the commission. This is true because conservation work in Wisconsin pays its way out of the money it earns from the sale of licenses and tags, from its share of the rough fishing revenue, from the sale of confiscated goods, etc. Having an efficient force of conservation wardens in the field and actively on the job is a tremendous stimulant to the sale of licenses, which augments the revenue of the commission, making possible further activities. Of course the number of confiscations is due entirely to the efficiency of the warden force. Wisconsin's conservation wardens benefit one other state department particularly. All of the revenue derived from fines imposed upon convicted game law violators goes into the state school fund.

Probably greater advances have been made during the last biennium in the law enforcement division of the commission than in any other single department. A larger force of better trained wardens is in the field today than ever before, and the work of Wisconsin's conservation wardens now compares very favorably with that of any similar force of men in any state in the Union.

An appointment to a position as conservation warden today depends entirely upon the mental, moral, and physical fitness of the applicant. All men who become conservation wardens today must pass what is probably the most comprehensive examination given by the state civil service commission, and in addition to passing the examination, must meet the demands for an exacting chief and stand up under two actual tests of warden work, one of them in the company of an older, experienced man on the force, and the other one by themselves. Knowledge of the subject is absolutely essential to secure a passing grade in the deputy conservation warden examination, and any man who can make a good mark on the examination is thoroughly acquainted with the subject of conservation.

Civil Service Examination

The examination consists of four parts. The second part is the written test, which is held by local examiners of the civil service commission in the various county seats. The sets of questions and a list of eligible candidates are sent to each of the local examiners by the Madison office of the civil service commission, and notice is also sent to each eligible candidate. This written quiz consists of 250 questions, by far most of which concern conservation and law enforcement matters. These questions are formulated by officials of the



A. J. Robinson, Conservation Warden at Rhineland, who led the field force in number of arrests during 1927-28. This picture shows the complete new conservation warden uniform.

civil service commission, with the help of the chief conservation warden. The third part of the examination is visual, in which each candidate attempts to classify thirty marked birds—game, song, and unprotected—and approximately twenty pelts of animals. All of these birds and animals are native to Wisconsin, and complete knowledge of them is essential to the successful performance of a warden's duties. In this visual part of the examination, besides the identification of the stuffed birds and animal pelts, each candidate must name and classify thirty-five varieties of fish from a book of colored plates, and he must identify by name approximately sixty-five native birds and animals, also from colored plates. The fourth, and last, part of the examination is oral, conducted by the secretary of the civil service commission and the chief warden. This oral quiz is to determine the personal fitness of the candidate for the work of a conservation warden, and is truly comprehensive in scope.

After a man has been certified by the civil service commission as having passed the examination, he is given a trial appointment by the chief warden to work for sixty days with an older warden. If the candidate makes good on this appointment, he is sent out alone for three months, and if he proves satisfactory on this tryout, he is recommended for regular employment.

It can readily be seen that a man who can qualify under this strict examination must be well fitted for the position of deputy conservation warden, and also must be of the type of man whom any group of law enforcement officials would be glad to include. The conservation commission today feels proud of its enforcement staff, and while it realizes that there is still room for improvement in places, all of the territories are being brought up to a high standard, and Wisconsin's conservation wardens today are on the job and getting results. As good men are found and as funds are available, the warden force will be increased to the point where the state will be thoroughly patrolled.

Two Kinds of Violators

There are two kinds of violators with whom the conservation wardens must cope. The first of these, and the one which presents the least problem, is the case of the unintentional violator. The commission's policy of seeking to prevent violations rather than to punish violators is working out very satisfactorily with this type of violator. Education by the publication of conservation rulings and laws, warnings by the conservation wardens by word of mouth and by their known and advertised presence in the communities as uniformed officers of the law is having an excellent effect in deterring the casual violator.

It is with the habitual and intentional violator that the warden has his biggest problem. These men cannot be altered from their course by warning, and the only recourse left to the officer is arrest and conviction. That the conservation wardens have been on the job and getting results during the past biennium can be seen by a study of

the figures of the numbers of arrests made during the last biennium, as compared with the preceding ones. In the whole state of Wisconsin during the first year of the biennium preceding the last one, there were only 605 arrests made. During the year just past the wardens made 1513 arrests in the state. This increase is due, not so much to the increase in the size of the force, because there has not been a large increase, as it is to the vigilance and painstaking efforts of the wardens.

The greatest handicap in preventing game law violations in Wisconsin at the present time is the attitude taken by some of the courts of the state towards game law violators. In some counties it is almost impossible to secure conviction of a violator, and in a few instances, even district attorneys look upon game violations as natural and of no importance. The commission is not inclined to be critical when judges and prosecuting officers show leniency to men in court who have made their first mistakes. But the commission is critical, and it believes rightfully critical, when there is evidence of desire on the part of a court or prosecuting officer to favor and cater to the habitual and willful violator and his friends. This attitude of the courts is a controlling factor in some sections of the state, but fortunately this attitude is becoming less rather than greater. Eventually this attitude may be entirely eradicated, and it is thought that if it is eradicated it will be due to a change in public opinion. There is no force like public opinion to bring reluctant officers and representatives of the law into line, and the commission appeals to the better instincts of the people of the state, individually and in groups, to bring about this pressure of public sentiment upon wayward courts and prosecuting officers.

Warden Changes

During the last biennium many changes have taken place in the organization of the law enforcement division of the commission. New wardens have been stationed in some places, and other wardens have changed districts. The changes during the past biennium are as follows:

Warden F. A. Stiglbauer was placed at Oconomowoc, to replace Warden E. M. Tuttle, who died.

Warden Ernest Swift, who had been in the forest division of the commission at Crandon, replaced Warden W. W. Wismer at Hayward. Warden Wismer had resigned.

Warden E. L. Alderman was placed at Portage, a district which had needed a warden for many years.

Warden Arthur Baie was assigned to the post at Marinette to replace Warden Edward Apel, who was moved to Eau Claire to replace the late Charles Little.

Warden Louis Giesen was assigned to work with Fountain City as his headquarters. He assists in the extensive Mississippi river work.

Warden Stewart Hayner was placed at Three Lakes, a district which had been without a warden and which needed one badly.

Warden H. L. Haugen was placed at Loretta, another new district. Warden E. P. Johnson was assigned to the Ladysmith district to replace Louis Soule, who resigned.

Warden A. J. Peterson was placed at Racine, to succeed Warden John Kupper, who had been killed while on duty in a railroad crossing accident.

Warden W. H. Riebe was assigned to Eagle River to replace Warden H. J. Oberholtzer.

Warden James Edick was assigned to Crandon to fill the position after Warden Ernest Swift had been transferred to Hayward.

Warden A. P. Vander Kelen was assigned to Door county, with Sturgeon Bay as his headquarters, a new district which has a great deal of work for a warden.

Warden Lawrence Hope was placed at Hammond to succeed Warden Andrew Hope, who had died.

Wardens Harry Hosford and Dan Trainor were assigned to the districts at Medford and Princeton respectively, both of which were new stations for wardens.

These new assignments have been made by the conservation commission in answer to a general demand for more enforcement officers. The commission makes the assignments to the territories where the need seems greatest. As good men are found and as funds are available to pay their salaries and expenses, wardens will be assigned to many more districts in the state. Among the districts which will receive immediate attention are Fond du Lac, Richland Center, La Crosse, Kenosha, Wausau, Florence, Goodman, Solon Springs, Mauston, Menomonie, and Star Lake.

While many of the changes effected in the personnel of the enforcement division have been transfers, there have been ten new permanent appointments made. At the beginning of the biennium there were forty-eight officers in the warden force and at the end of it there were fifty-eight.

At many times during the past biennium the law enforcement division has felt the helpful hand of cooperation of the Federal warden service. Particularly in laws controlling fur farms and the trapping of fur bearing animals and the sale of furs has this cooperation been helpful. Another specific instance in which the federal and state wardens have worked together has been in the migratory bird treaty act. The time and experience of Federal game wardens have always been at the disposal of the chief warden, and the two different agencies have worked in absolute harmony for the better enforcement of the fish and game laws.

The best way by which an understanding of the work of the law enforcement division of the conservation commission can be reached is by a study of the individual records of the men.

**Individual Wardens Records
1926-1927**

Warden	District	Cases	Won	Lost	Fines	Costs	Seizures	Jail Sentences
Mac Kenzie	Antigo	17	17		\$907.50	\$140.03	9	
Boomer	Oshkosh	23	23		1,250.00	176.54	4	1-60 days
Elliott	Whitewater	46	46		1,831.50	309.82	3	1-10 days
Fess	Madison	15	14	1	600.00	184.07	6	1-30 days
Lanning	Black River Falls	10	9	1	500.00	58.95	37	1-90 days
Weaver	Woodruff	8	8		350.00	31.80	21	
Wismer	Hayward	3	2	1	100.00	8.30	16	
Alderman	Portage	28	28		1,425.00	205.04	13	1-90 days
Apel	Eau Claire	43	43		2,000.00	393.17	100	1-30 days 1-40 days 1-60 days 1-90 days
Baie	Marinette	32	28	4	725.00	148.65	19	
Bosworth	Merrill	8	7	1	600.00	62.70	2	
Cole	Wisconsin Rapids	6	5	1	230.00	33.29	2	
Cranston	Wausau	20	16	4	530.00	58.60	12	3-30 days 3-40 days
Curtis	Viroqua	13	10	3	600.00	29.92	6	1-30 days 2-40 days
Devine, B.	Webster	16	15	1	726.00	156.33	20	
Devine, T.	Spooner	8	8		300.00	32.00	5	
Diedrich	Milwaukee	17	15	2	1,260.00	104.42	5	
Dockham	Baraboo	18	18		650.00	92.60	5	1-30 days
Dunham	Oshkosh	20	20		950.00	84.01	3	
Egan	Manitowoc	12	12		605.00	42.33	1	
Emberson	De Soto	1		1			5	
Fisher	Oconto Falls	26	26		1,110.00	94.51	17	2-90 days
Fosnot	Tomahawk	13	12	1	500.00	101.35	3	1-4 mo. 1-7 mo.
Gettleman	Milwaukee	3	3		200.00	33.16		
Giesen	Fountain City	5	5		250.00	7.80	9	
Gray	Milton	24	24		1,160.00	144.05	1	
Gruebner	Sheboygan	5	5		275.00	40.21	2	
Grey	Ashland	5	5		200.00	12.20	14	1-60 days
Hall	Darlington	5	5		250.00	27.95	5	
Happle	Iron River	38	32	6	1,050.00	69.99	25	6-30 days 1-60 days

Individual Wardens Records—Continued

Warden	District	Cases	Won	Lost	Fines	Costs	Seizures	Jail Sentences
Hayner	Three Lakes	9	8	1	\$425.00	\$47.10	11	
Haugen	Draper	25	23	2	830.00	90.18	67	4-30 days 2-60 days
Hendrickson	Two Rivers	1	1		50.00	3.55		
Hilliker	Tunnel City	8	8		325.00	75.69	1	1-90 days
Hope, Andrew	Hudson	20	18	2	825.00	112.50	5	1-30 days
Hornberg	Stevens Point	16	16		1,005.00	225.73	11	1-60 days
Jakoubek	Phillips	14	11	3	675.00	109.30	17	1-90 days
Jeske	Appleton	10	10		300.00	45.64	2	
Johnson, E. P.	Ladysmith	6	6		325.00	15.84	17	
Johnson, T. J.	Whitehall	14	14		1,050.00	117.31	14	
Kabat	La Crosse	13	6	7	505.00	15.59	20	
Koeler	Fennimore	34	32	2	1,575.00	396.06	18	2-90 days
Kramer	Polar	26	26		1,000.00	138.50	17	1-30 days 1-45 days
Lange	La Crosse	6	1	5	50.00	2.50	6	
Lee	Luck	4	4		300.00	32.20	2	
Long	Mellen	33	33		1,800.00	89.00	25	3-60 days
McNaughton	Superior	31	29	2	1,530.00	181.62	35	
Peterson	Racine	5	4	1	150.00	13.74		
Powell	Bayfield	5	5		150.00	25.69	3	1-30 days
Raeth	Milwaukee	4	4		150.00	16.33	16	
Randall	Waupaca	10	8	2	410.00	26.10	4	
Reade	Horicon	21	13	8	775.00	86.39	7	
Riebe	Eagle River	12	11	1	625.00	55.86		1-30 days 1-60 days 2-30 days 1-60 days
Rheume	Mercer	23	21	2	850.00	110.05	23	
Sampson	Stoughton	23	23		975.00	219.64	11	
Robinson	Rhineland	37	36	1	1,175.00	111.17	7	9-30 days 1-60 days 4-30 days
Scolman	Rice Lake	28	25	3	1,000.00	104.10	11	
Smith	Green Bay	6	6		250.00	54.82	1	
Soule	Ladysmith	20	19	1	775.00	40.38	16	
Stigbauer	Laona	3	3		150.00	20.05	4	
Tie	Shawano	37	37		1,610.00	388.29	19	1-30 days 1-60 days 2-60 days
Tiedeman	Thorp	72	69	3	3,300.00	428.52	31	1-2 mo. 1-60 days
Worden	Plainfield	13	13		800.00	69.14	4	1-60 days 1-9 mo.

Tuttle.....	Oconomowoc.....	20	18	2	525.00	102.51	1	
Armstrong.....	Park Falls.....	8	8		355.00	17.50	16	1-30 days
Branch.....	Special Warden.....	1	1		50.00	3.75	2	
Carlson.....	Special Warden.....	3	3		100.00	17.25		
Chase.....	Oshkosh.....	6	6		325.00	23.25		
Clawson.....	Cranson.....	5	4	1	\$150.00	\$ 15.70	2	
Hamblin.....	Hayward.....	7	6	1	255.00	14.00	2	
Hassett.....	Park Falls.....	1	1		50.00	4.10	10	
Long, F. J.....	Sayner.....	2	1	1	50.00	25.96	7	
Mader.....	Special Warden.....	3	1	2	50.00	3.20	6	
McDonald, P. A.....	Special Warden.....	1	1		50.00	3.00		
O'Brien.....	Special Warden.....	2	2		100.00	24.97	4	
Orth.....	Special Warden.....	2	2		100.00	3.20	4	
Otto.....	Argonne.....	12	12		450.00	155.90	10	2-30 days
Percy.....	Brule.....	5	3	2	150.00	6.15	4	
Peters.....	Eagle River.....	9	3	6		3.00	9	2-60 days
Reder.....	Special Warden.....	2	2			1.35	4	1-30 days
Reed.....	Special Warden.....	3	3		75.00	10.00	4	
Swift.....	Laona.....	28	28		550.00	169.90	10	2-30 days 1-40 days
Tiedeman, Kenneth.....	Special Warden.....	12	11	1	550.00	56.42	1	
Weaver, P. E.....	Special Warden.....	1	1		100.00	10.00		
Henriquez.....							2	
Totals.....		1,210	1,121	89	\$50,885.00	\$7,023.48	893	

Per cent of cases won..... 92.6%
 Per cent of cases lost..... 7.4%
 Per cent of seizures to cases won..... 79.6%
 Average fine per case won..... \$45.39

Individual Wardens Records 1927-1928

Warden	District	Cases	Won	Lost	Fines	Costs	Seizures	Jail Sentences
MacKenzie.....	Antigo	11	10	1	\$575.00	\$79.20	2	1-25 days 1-90 days
Boomer.....	Oshkosh	32	30	2	1,125.00	170.19	21	1-60 days 1-30 days
Elliott.....	Whitewater	55	55		3,455.00	393.07	14	1-30 days
Fess, Edw.....	Madison	25	24	1	1,015.00	210.17	4	1-60 days
Lanning.....	Black River Falls	9	9		100.00	7.30	10	7-30 days
Weaver, E. M.....	Woodruff	12	12		500.00	53.95	36	

Hassett	Park Falls	1	1		50.00	3.00	1	2-30 days
Hayner	Three Lakes	30	26	4	1,125.00	213.71	11	
Hendrickson	Two Rivers	2	2		150.00	4.34	1	1-30 days
Haugen	Draper	51	51		2,025.00	238.75	59	3-90 days 1-60 days 6-30 days
Hilliker	Tomah	12	12		500.00	82.38	2	
Hope, A.	Hudson	1	1		50.00	6.50		
Hope, L.	Hammond	26	19	7	825.00	115.74	18	2-90 days 1-60 days 2-30 days 1-6 mo. 2-60 days 1-60 days 3-30 days 1-60 days 1-30 days
Hornberg	Stevens Point	21	21		1,125.00	225.62	4	
Hosford	Medford	16	15	1	500.00	48.21	23	1-60 days 3-30 days 1-60 days 1-30 days
Jakoubek	Phillips	18	17	1	850.00	99.63	22	1-60 days 1-30 days
Jeske	Appleton	9	8	1	250.00	12.00	1	1-90 days
Johnson, E. P.	Ladysmith	31	30	1	1,400.00	206.18	54	2-30 days
Johnson, F. J.	Blair	16	16		625.00	90.28	13	1-60 days 1-30 days
Kabat	La Crosse						1	
Keeler	Fennimore	15	14	1	700.00	262.09	7	
Kramer	Antigo	39	34	5	1,350.00	165.40	16	1-45 days 4-30 days 2-30 days
Lange	La Crosse	6	6		200.00	8.15	17	1-1 year 1-9 mo. 1-90 days 12-60 days 2-30 days
Lee	La Crosse	39	38	1	1,500.00	261.76	16	
Long, F. J.	Sayner	4	4		175.00	23.90	2	
Long, John	Mellen	14	14		600.00	49.87	10	1-90 days 1-60 days
McNaughton	Superior	16	16		600.00	41.80	19	
Morris	Special Warden	2	2		50.00	21.27		
Miller	La Crosse	1	1		50.00	3.16	1	1-30 days
Nixon, Bert	Special Warden	2	2		100.00	11.48		
Nixon, R. A.	Special Warden							
Norem, H. E.	Special Warden	5	5		100.00	22.26	1	1-30 days

Individual Wardens Records—Continued

Warden	District	Cases	Won	Lost	Fines	Costs	Seizures	Jail Sentences
Otto.....	Argonne.....	22	21	1	\$575.00	127.92	8	4—30 days
Percy.....	Brule.....	4	4		100.00	6.85	7	
Peterson, A. J.....	Racine.....	29	29		1,247.50	159.18	3	
Peterson, Carl.....	Special Warden							
Powell.....	Bayfield.....	4	2	2	50.00	9.95	2	
Raeth.....	Milwaukee.....	11	9	2	450.00	72.07	18	
Randall.....	Waupaca.....	11	10	1	550.00	100.70	4	
Reabe.....	Horicon.....	31	29	2	1,201.00	180.36	9	1—9 mo.
Rheaume.....	Mercer.....	27	26	1	1,525.00	120.19	11	2—60 days
Riebe.....	Eagle River.....	29	25	4	925.00	229.87	22	1—60 days
Robinson.....	Rhineland.....	65	64	1	1,725.00	329.28	48	4—30 days
Sampson.....	Stoughton.....	39	38	1	1,625.00	502.31	9	1—60 days
Schalbe.....	Special Warden	1	1				1	3—30 days
Scolman.....	Rice Lake.....	15	15		600.00	72.40	10	9—30 days
Smith, I. G.....	Green Bay.....	21	21		1,325.00	156.28	12	1—30 days
Smith, P. R.....	Star Lake.....							1—45 days
Steiro.....	Draper.....	10	10		100.00	7.75	3	1—35 days
Stevenson.....	Prairie du Chien.....	2	2		100.00	11.26	2	1—60 days
Stiglbauer.....	Oconomowoc.....	27	26	1	875.00	154.70	2	6—30 days
Swift.....	Crandon.....	17	17		685.00	148.70	11	
Tic.....	Shawano.....	53	49	4	2,885.00	405.21	26	2—30 days
Riedeman.....	Thorp.....	22	22		1,025.00	106.46	16	
Trainer.....	Special Warden	1	1		50.00	4.48		1—60 days
Trastek.....	Special Warden	1	1					
Vander Kelen.....	Sturgeon Bay.....	15	15		635.00	84.93	10	1—30 days
Weaver, P.....	Sturgeon Bay.....	2	2		50.00	4.14	3	2—30 days
Worden.....	Plainfield.....	18	17	1	705.00	89.20	11	1—60 days
	Totals.....	1,438	1,365	73	\$57,068.50	\$8,623.82	941	3—60 days

Per cent of cases won..... 94.9%
 Per cent of cases lost..... 5.1%
 Per cent of seizures to cases won..... 68.9%
 Average fine per case won..... \$38.95

ANTICIPATED ACTIVITIES

With the desire to encourage sympathetic cooperation and intelligent appreciation of conservation problems in Wisconsin, the commission just at the close of the last biennium organized two new departments which will function as integral units of the commission. These two departments, the department of game and the department of education and publications, are highly important to a comprehensive and systematic conservation program.

The first of these two departments, aside from its projected activities in the propagation and distribution of native and introduced game birds, the introduction of game animals, and the furnishing of food and protection to our native birds and animals, desires to encourage a wiser use of all our wild life, regardless of its sporting value. Its intention is to preserve among the other valuable resources of the state the presence of our picturesque and highly interesting game for the future.

The department of game as one of its first functions established a game farm in Peninsula Park, in Door county. The first activity of this department will be the development of a program of ring-neck pheasant propagation and distribution, because it is by the propagation of pheasants that the best immediate results may be obtained. However, extensive experiments will be made in rearing native partridge, grouse, prairie hens, ducks, wild turkeys, and quail. All of this activity, of course, will have to come gradually over a period of years, and the department's activities will expand in the future to the point where the new department of game will be just as important to the work of conservation in Wisconsin as the department of fisheries is at the present time.

The function of the department of education and publications is of a dual nature, as its work divides naturally into two major divisions—conservation education within the state and advertising Wisconsin's natural resources outside the state. Naturally, these two functions of the department will overlap considerably, but in general the material prepared for within the state consumption is educational, while that furnished by the department for consumption outside the state has as its main purpose the advertising of Wisconsin's recreational resources.

This department, aside from doing the general publicity work for the commission, will maintain contacts with schools and other educational groups throughout the state, and will handle all the publication work for the conservation commission. This latter includes the publishing of bulletins, reports, pamphlets, books, and it is anticipated that a regular monthly publication will be issued, beginning sometime

in the near future. The purpose of this department can be summed up in the statement that its work is to make the people of Wisconsin "conservation conscious" and by so doing to develop a frame of mind favorable to the successful culmination of the conservation commission's extensive program.

The establishment of a research bureau fits in closely with the work of these other two new departments. This bureau consists of a fact-finding group of technical men and skilled scientists who serve the state without pay because of their sincere interests in conservation problems. As time goes on this research bureau will prove to be more and more valuable in carrying out the programs of the other bureaus and departments. Should disease threaten the wild life, fish, game, trees, or shrubs of the state, this bureau will determine the cause and seek a remedy.

The establishment of this new bureau reflects a tendency prevalent throughout the United States of scientific investigation of matters and problems of conservation. That Wisconsin has already established such a bureau shows that the conservation commission is anxious to further the cause of conservation in every way it can, scientifically and practically.

The research bureau derives a great benefit from the work of federal investigators. There are many federal agencies engaged in research studies and fact finding, and the results of their work is always available for the use of the research bureau of the Wisconsin commission. In many cases the federal agencies have provided all of the basic work upon which can be builded a specific study of a particular problem relating to Wisconsin. In the future the cooperation of federal research agencies and state research agencies will become increasingly more important, just as the cooperation of all federal conservation activities with all state conservation activities will become more closely associated.

FINANCIAL STATEMENT
of
STATE CONSERVATION COMMISSION

Fiscal years of
July 1, 1926 to June 30, 1927
and
July 1, 1927 to June 30, 1928

FIRST YEAR OF BIENNIUM

July 1, 1926 to June 30, 1927

OPERATION

Appropriation.....	\$245,675.00	
Unexpended balance.....	27,901.25	
Refunds.....	100.00	
One half of rough fish receipts.....	19,750.58	
Total disbursements.....		\$282,660.18
Unexpended balance.....		10,766.65
	<u>\$293,426.83</u>	<u>\$293,426.83</u>

CLASSIFICATION OF DISBURSEMENTS

Administration.....	\$41,153.62	
Forestry.....	8,153.19	
Parks.....	20,963.89	
Wardens.....	133,690.66	
Fisheries.....	78,698.82	
		<u>\$282,660.18</u>

DETAIL OF DISBURSEMENTS

ADMINISTRATION

Salaries.....	\$24,511.86	
Supplies.....	3,087.00	
Printing.....	4,094.57	
Postage.....	3,712.18	
Telephone and telegraph.....	955.30	
Express, freight and drayage.....	288.47	
State car expense.....	1,192.30	
Employee's expenses.....	3,286.69	
Advertising.....	25.25	
		<u>\$41,153.62</u>

FORESTRY

Salaries and labor.....	\$4,244.62	
Supplies.....	2,320.25	
Employee's expenses.....	1,588.32	
		<u>\$8,153.19</u>

PARKS

Salaries and labor.....	\$8,989.54	
Supplies.....	10,813.42	
Employee's expenses.....	129.25	
Telephone.....	85.75	
Insurance.....	1,445.93	
		<u>\$20,963.89</u>

PARKS

Peninsula Park.....	\$8,488.93	
Devils Lake Park.....	5,271.25	
Northern Forest Park.....	2,884.48	
Tower Hill Park.....	788.61	
Interstate Park.....	1,854.96	
Nelson Dewey Park.....	438.59	
Pattison Park.....	283.27	
Belmont Park.....	833.20	
Cushing Memorial Park.....	87.50	
Perrot Park.....	33.10	
		<u>\$20,963.89</u>

WARDENS

Salaries.....	\$86,655.54	
Railroad fares.....	1,787.38	
Hotel expense.....	14,900.68	
Livery expense.....	178.60	
Mileage.....	11,387.67	
Other expense.....	2,984.97	
State car expense.....	10,726.99	
Auto supplies.....	2,352.06	
Gas and oil.....	444.54	
Provisions and supplies.....	1,298.89	
Telephone.....	452.05	
Insurance.....	521.29	
		<u>\$133,690.66</u>

FISHERIES

Salaries and labor.....	\$36,651.99	
Fish food.....	15,902.81	
Supplies.....	14,399.27	
Employee's expenses.....	8,082.16	
Telephone.....	606.51	
Drayage.....	1,700.06	
Insurance.....	1,356.02	
		<u>\$78,698.82</u>

FISHERIES

Madison Hatchery.....	\$6,144.77	
Bayfield Hatchery.....	8,854.47	
Minocqua Hatchery.....	2,145.53	
Delafield Hatchery.....	2,819.84	
Wild Rose.....	7,089.08	
Sturgeon Bay Hatchery.....	4,007.17	
Sheboygan Hatchery.....	3,695.57	
Osceola Hatchery.....	11,198.44	
Eagle River Hatchery.....	186.40	
Spooner Hatchery.....	103.86	
Westfield Hatchery.....	1,686.22	
Hayward Hatchery.....	742.83	
Lakewood Hatchery.....	196.17	
Wisconsin Rapids Hatchery.....	571.74	
Eau Claire Hatchery.....	1,034.37	
Sparta Hatchery.....	1,094.02	
Brule Hatchery.....	121.12	
Birchwood Hatchery.....	491.57	
Oshkosh Hatchery.....	134.54	
Tenny Park Hatchery.....	134.34	
St. Croix Falls Hatchery.....	9,581.62	
Collection of spawn.....	5,643.16	
Distribution of fish.....	11,021.99	
		<u>\$78,698.82</u>

REPAIRS AND MAINTENANCE

Appropriation.....	\$21,650.00	
Unexpended balance.....	676.83	
Refunds.....	100.00	
Total disbursements.....		22,408.73
Unexpended balance.....		18.10
	<u>\$22,426.83</u>	<u>\$22,426.83</u>

CLASSIFICATION OF DISBURSEMENTS

Administration.....	\$32.40	
Forestry.....	3,219.01	
Parks.....	5,602.75	
Wardens.....	412.86	
Fisheries.....	13,141.71	
		\$22,408.73

PARKS

Peninsula Park.....	\$2,285.07	
Devils Lake Park.....	1,194.85	
Northern Forest Park.....	988.40	
Tower Hill Park.....	306.51	
Interstate Park.....	500.32	
Nelson Dewey Park.....	174.00	
Pattison Park.....	116.50	
Belmont Park.....	37.10	
		\$5,602.75

FISHERIES

Madison Hatchery.....	\$1,666.64	
Bayfield Hatchery.....	2,684.31	
Minocqua Hatchery.....	544.37	
Delafield Hatchery.....	1,063.61	
Wild Rose Hatchery.....	1,790.57	
Sturgeon Bay Hatchery.....	698.83	
Sheboygan Hatchery.....	566.04	
Osceola Hatchery.....	2,023.93	
Eagle River Hatchery.....	20.70	
Spooner Hatchery.....	49.70	
Eau Claire Hatchery.....	6.10	
Oshkosh Hatchery.....	5.00	
St. Croix Falls Hatchery.....	1,962.25	
Distribution of fish.....	59.66	
		\$13,141.71

PROPERTY AND IMPROVEMENTS

Appropriation.....	\$34,650.00	
Unexpended balance.....	644.60	
Total disbursements.....		\$33,570.69
Unexpended balance.....		1,723.91
	\$35,294.60	\$35,294.60

CLASSIFICATION OF DISBURSEMENTS

Administration.....	\$240.38	
Forestry.....	841.04	
Parks.....	10,678.28	
Wardens.....	1,083.02	
Fisheries.....	20,727.97	
		\$33,570.69

PARKS

Peninsula Park.....	\$859.76	
Devils Lake Park.....	3,975.48	
Northern Forest Park.....	193.14	
Tower Hill Park.....	15.87	
Interstate Park.....	2,591.32	
Nelson Dewey Park.....	2,013.19	
Pattison Park.....	653.28	
Belmont Park.....	142.80	
Cushing Memorial Park.....	198.14	
Perrot Park.....	35.30	
		\$10,678.28

FISHERIES

Madison Hatchery.....	\$1,212.80
Bayfield Hatchery.....	414.13
Minocqua Hatchery.....	252.67
Delafield Hatchery.....	617.29
Wild Rose Hatchery.....	1,791.26
Sturgeon Bay Hatchery.....	661.24

WISCONSIN CONSERVATION COMMISSION

Sheboygan Hatchery.....	\$6.35	
Osceola Hatchery.....	2,402.82	
Eagle River Hatchery.....	83.00	
Westfield Hatchery.....	50.25	
Hayward Hatchery.....	233.16	
Eau Claire Hatchery.....	2,380.84	
Sparta Hatchery.....	839.70	
Brule Hatchery.....	820.95	
Birchwood Hatchery.....	788.82	
St. Croix Falls Hatchery.....	4,042.06	
Collection of spawn.....	1,722.38	
Distribution of fish.....	2,408.25	
		<u>\$20,727.97</u>

BOUNTIES

Total disbursements.....		\$60,684.00
		<u>\$60,684.00</u>

EMERGENCY FIRE WARDENS

Total disbursements.....		\$11,709.92
		<u>\$11,709.92</u>

PARK PURCHASE FUND

Unexpended balance.....	\$2,023.07	
Receipts for year.....	5,207.25	
Disbursements.....		\$5,183.89
Unexpended balance.....		2,046.43
	<u>\$7,230.32</u>	<u>\$7,230.32</u>

CLASSIFICATION OF DISBURSEMENTS

Supplies.....		\$5,183.89
		<u>\$5,183.89</u>

LAND EXCHANGE FUND

Unexpended balance.....	\$25,000.00	
Disbursements.....		<u>\$25,000.00</u>
Unexpended balance.....		\$25,000.00
	<u>\$25,000.00</u>	<u>\$25,000.00</u>

SANITATION—Interstate Park

Unexpended balance.....	\$1,513.85	
Disbursements.....		\$1,513.85
	<u>\$1,513.85</u>	<u>\$1,513.85</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$1,026.80
Supplies.....		487.05
		<u>\$1,513.85</u>

FIRE PREVENTION AND CONTROL—WEEKS LAW

Unexpended balance.....	\$6,884.21	
Reimbursed by U. S. Gov't.....	25,121.50	
Refunds.....	71.76	
Disbursements.....		\$15,330.54
Unexpended balance.....		16,746.93
	<u>\$32,077.47</u>	<u>\$32,077.47</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$10,448.85
Supplies.....		2,672.42
Employee's expenses.....		2,209.27
		<u>\$15,330.54</u>

BIENNIAL REPORT

59

FIRE PROTECTION

Appropriation.....	\$25,000.00	
Unexpended balance.....	21.93	
Disbursements.....		\$25,021.88
Unexpended balance.....		.05
	\$25,021.93	\$25,021.93

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$18,215.38
Supplies.....		2,178.99
Employee's expenses.....		4,443.56
Printing.....		183.95
		\$25,021.88

DEVILS LAKE BOAT FUND

Unexpended balance.....	\$2,130.36	
Receipts for year.....	1,404.20	
Disbursements.....		\$949.69
Unexpended balance.....		2,584.87
	\$3,534.56	\$3,534.56

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$614.12
Supplies.....		335.57
		\$949.69

REMOVAL OF ROUGH FISH—NORTHERN WATERS

Unexpended balance.....	\$9,120.16	
Refund.....	9.00	
Disbursements.....		\$8,045.88
Unexpended balance.....		1,083.28
	\$9,129.16	\$9,129.16

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$4,978.02
Supplies.....		2,219.39
Employee's expenses.....		721.47
Drayage.....		127.00
		\$8,045.88

FOREST NURSERY

Appropriation.....	\$4,000.00	
Unexpended balance.....	2,415.21	
Refund.....	48.00	
Disbursements.....		\$6,461.28
Unexpended balance.....		1.93
	\$6,463.21	\$6,463.21

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$3,268.13
Supplies.....		2,684.52
Employee's expenses.....		487.18
Printing.....		21.45
		\$6,461.28

REMOVAL OF ROUGH FISH—WINNEBAGO WATERS

Appropriation.....	\$10,000.00	
Unexpended balance.....	1,671.52	
Rough fish receipts.....	995.26	
Disbursements.....		\$5,809.01
Unexpended balance.....		6,857.77
	\$12,666.78	\$12,666.78

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$3,871.65
Supplies.....		1,404.73
Employees expenses.....		523.63
Drayage.....		9.00
		<u>\$5,809.01</u>

MISSISSIPPI RIVER FISH RESCUE WORK

Unexpended balance.....	\$5,024.38	
One half rough fish receipts.....	19,750.58	
Refund.....	242.10	
Disbursements.....		\$16,401.66
Unexpended balance.....		<u>8,615.40</u>
	<u>\$25,017.06</u>	<u>\$25,017.06</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$11,542.51
Supplies.....		3,601.48
Employee's expenses.....		1,168.77
Telephone.....		54.90
Drayage.....		34.00
		<u>\$16,401.66</u>

POLLUTION OF STREAMS

Appropriation.....	\$10,000.00	
Unexpended balance.....	4,507.81	
Disbursements.....		\$12,375.44
Unexpended balance.....		<u>2,132.37</u>
	<u>\$14,507.81</u>	<u>\$14,507.81</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$9,408.77
Supplies.....		298.34
Employee's expenses.....		2,493.18
Printing.....		175.15
		<u>\$12,375.44</u>

PARK ROADS

Appropriation.....	\$50,000.00	
Unexpended balance.....	62,899.28	
Disbursements.....		\$50,740.65
Unexpended balance.....		<u>62,158.63</u>
	<u>\$112,899.28</u>	<u>\$112,899.28</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$19,066.43
Supplies.....		31,509.99
Employees expenses.....		164.23
		<u>\$50,740.65</u>

GOVERNMENT REFORESTATION FUND

Unexpended balance.....	\$4,121.29	
Receipts for year.....	3,655.21	
Disbursements.....		\$4,893.70
Unexpended balance.....		<u>2,882.80</u>
	<u>\$7,776.50</u>	<u>\$7,776.50</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$2,750.50
Supplies.....		1,918.54
Employee's expenses.....		224.66
		<u>\$4,893.70</u>

FIRE LOSS—VILAS COUNTY HOUSE

Unexpended balance.....	\$180.00	
Disbursements.....		\$177.72
Unexpended balance.....		2.28
	<u>\$180.00</u>	<u>\$180.00</u>

CLASSIFICATION OF DISBURSEMENTS

Supplies.....		\$177.72
		<u>\$177.72</u>

FIRE LOSS—NETS—MINOCQUA HATCHERY

Unexpended balance.....	\$311.40	
Disbursements.....		\$311.40
Unexpended balance.....		
	<u>\$311.40</u>	<u>\$311.40</u>

FIRE LOSS—TOMAHAWK LAKE CABIN

Unexpended balance.....	\$3,150.00	
Disbursements.....		1,707.23
Unexpended balance.....		1,442.77
	<u>\$3,150.00</u>	<u>\$3,150.00</u>

CLASSIFICATION OF DISBURSEMENTS

Supplies.....		\$1,707.23
		<u>\$1,707.23</u>

EMERGENCY APPROPRIATION FROM CONSERVATION FUND

Equipping Additional Fire Districts

Unexpended balance.....	\$40,000.00	
Disbursements.....		\$29,553.74
Unexpended balance.....		10,446.26
	<u>\$40,000.00</u>	<u>\$40,000.00</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$5,839.22
Supplies.....		22,920.77
Employee's expenses.....		793.75
		<u>\$29,553.74</u>

EMERGENCY APPROPRIATION FROM CONSERVATION FUND

Land for Hatchery—Marquette County

Unexpended balance.....	\$5,900.00	
Disbursements.....		\$5,900.00
	<u>\$5,900.00</u>	<u>\$5,900.00</u>

CLASSIFICATION OF DISBURSEMENTS

Land.....		\$5,900.00
		<u>\$5,900.00</u>

EMERGENCY APPROPRIATION FROM CONSERVATION FUND

Additional Conservation Wardens

Unexpended balance.....	\$25,000.00	
Disbursements.....		\$25,000.00
	<u>\$25,000.00</u>	<u>\$25,000.00</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries.....		\$16,718.62
Employee's expenses.....		8,256.38
Supplies.....		25.00
		<u>\$25,000.00</u>

EMERGENCY APPROPRIATION FROM CONSERVATION FUND

Mississippi River Fish Hatchery Sites

Unexpended balance.....	\$20,000.00	
Disbursements.....		\$20,000.00
Unexpended balance.....		<u>\$20,000.00</u>
	<u>\$20,000.00</u>	<u>\$20,000.00</u>

CHAPTER NO. 358 LAWS OF 1925

Fish Hatchery in Eau Claire County

Unexpended balance.....	\$3,500.00	
Disbursements.....		\$3,500.00
	<u>\$3,500.00</u>	<u>\$3,500.00</u>

CLASSIFICATION OF DISBURSEMENTS

Salaries and labor.....		\$665.00
Supplies.....		2,750.79
Employee expenses.....		84.21
		<u>\$3,500.00</u>

RECEIPTS

Nonresident fishing licenses.....	\$196,745.90
Fish shipping coupons.....	10,284.20
Nonresident hunting licenses.....	14,025.00
Resident hunting licenses.....	167,114.79
Settler's hunting licenses.....	191.02
Duplicate licenses.....	225.00
Great Lakes fishing licenses.....	7,948.50
Mississippi River fishing licenses.....	2,596.00
Rough fish.....	39,501.16
Confiscations.....	14,935.58
Warden fees.....	2,289.31
Trapping licenses.....	18,784.18
Trap tags.....	18,790.30
Deer tags.....	23,665.00
Set line licenses.....	1,990.26
Guide licenses.....	554.00
Fish Dealer licenses.....	1,100.00
Clamming licenses.....	1,140.00
Decoy bands.....	1,117.66
Miscellaneous.....	12,572.71
Interest on fund.....	13,402.43
Refunds.....	663.76
Insurance receipts.....	311.40
Park leases and rentals.....	5,207.25
Devils Lake Boat fund.....	1,404.20
Fire control (Weeks Law).....	25,193.26
Reforestation receipts.....	3,655.21
	<u>\$585,408.08</u>

CONSERVATION FUND

Unexpended balance.....	\$522,279.53	
Receipts.....	567,375.28	
Interest on fund.....	13,402.43	
Refunds on disbursements.....	663.76	
Insurance receipts.....	311.40	
Disbursements.....		\$512,083.68
Bounties.....		60,684.00
Refunds on receipts.....		2,270.48
Unexpended balance.....		<u>528,994.24</u>
	<u>\$1,104,032.40</u>	<u>\$1,104,032.40</u>

BIENNIAL REPORT

63

July 1, 1927 to June 30, 1928

OPERATION

Unexpended balance.....	\$ 10,766.65	
1927 excess receipts.....	50,000.00	
Disbursements—Administration.....		\$ 912.47
Disbursements—Forestry.....		313.29
Disbursements—Parks.....		4,758.92
Disbursements—Fisheries.....		7,473.41
Disbursements—Wardens.....		7,686.23
Unexpended balance.....		39,622.33
	\$ 60,766.65	\$ 60,766.65

OPERATION—ADMINISTRATION

Appropriation.....	\$ 42,933.00	
Disbursements.....		\$ 40,444.93
Unexpended balance.....		2,488.07
	\$ 42,933.00	\$ 42,933.00

DETAIL OF DISBURSEMENTS

Salaries.....	\$ 21,214.71	
Supplies.....	4,744.99	
Printing.....	6,428.46	
Postage.....	2,738.14	
Telephone and telegraph.....	842.46	
State car expense.....	1,441.50	
Express, freight and drayage.....	298.08	
Advertising.....	31.50	
Employee's expenses.....	3,617.56	
		\$ 41,357.40

OPERATION—FORESTRY

Appropriation.....	\$ 67,400.00	
Refund.....	115.00	
Disbursements.....		\$ 46,073.01
Unexpended balance.....		21,441.99
	\$ 67,515.00	\$ 67,515.00

DETAIL OF DISBURSEMENTS

Salaries and labor.....	\$ 30,728.44	
Employee's expense.....	5,772.87	
Supplies.....	8,326.13	
Printing.....	925.83	
Advertising.....	78.15	
Insurance.....	554.88	
		\$ 46,386.30

OPERATION—PARKS

Appropriation.....	\$ 23,805.00	
Disbursements.....		\$ 20,628.59
Unexpended balance.....		3,176.41
	\$ 23,805.00	\$ 23,805.00

DISBURSEMENTS BY PARKS

Parks administration.....	\$ 1,976.34	
Peninsula Park.....	4,007.91	
Devils Lake Park.....	7,067.18	
Northern Forest Park.....	1,815.96	
Nelson Dewey Park.....	723.12	
Interstate Park.....	6,500.33	
Tower Hill Park.....	716.24	
Pattison Park.....	955.07	
Belmont Park.....	861.70	
Cushing Memorial Park.....	156.02	
Brule Park.....	16.87	
Perrot Park.....	343.39	
Game Farm—Parks.....	247.38	
		\$ 25,387.51

DETAIL OF DISBURSEMENTS

Salaries and labor.....	\$ 17,682.58	
Supplies.....	5,974.98	
Employee's expenses.....	402.66	
Printing.....	45.38	
Telephone.....	100.50	
Insurance.....	1,181.41	
		<u>\$ 25,387.51</u>

OPERATION—WARDENS

Appropriation.....	\$214,140.00	
Refund.....	4.78	
Disbursements.....		\$171,388.57
Unexpended balance.....		<u>42,756.21</u>
	<u>\$214,144.78</u>	<u>\$214,144.78</u>

DETAIL OF DISBURSEMENTS

Salaries.....	\$110,436.68	
Railroad fares.....	1,604.11	
Hotel expense.....	21,212.69	
Mileage.....	11,962.67	
Livery.....	11.96	
Other expense.....	3,163.72	
State car expense.....	5,316.68	
Car allowance.....	11,150.00	
Gas and oil.....	6,554.79	
Supplies.....	6,592.98	
Telephone.....	615.75	
Insurance.....	205.58	
Advertising.....	32.00	
Express and drayage.....	54.78	
Game Farm—wardens.....	160.51	
		<u>\$179,074.80</u>

OPERATION—FISHERIES

Appropriation.....	\$110,614.00	
Refund.....	39.65	
Disbursements.....		\$106,463.03
Unexpended balance.....		<u>4,190.62</u>
	<u>\$110,653.65</u>	<u>\$110,653.65</u>

DISBURSEMENTS BY HATCHERIES

Fisheries administration.....	\$ 5,904.59	
Madison Hatchery.....	8,315.30	
Bayfield Hatchery.....	10,548.89	
Minocqua Hatchery.....	3,018.86	
Delafield Hatchery.....	3,323.27	
Wild Rose Hatchery.....	9,564.58	
Sturgeon Bay Hatchery.....	4,468.76	
Sheboygan Hatchery.....	3,590.27	
Osceola Hatchery.....	12,916.06	
Westfield Hatchery.....	1,679.83	
Hayward Hatchery.....	750.89	
St. Croix Falls Hatchery.....	11,865.41	
Eau Claire Hatchery.....	1,905.58	
Sparta Hatchery.....	2,027.14	
Spooner Hatchery.....	14.06	
Eagle River Hatchery.....	109.30	
Oshkosh Hatchery.....	79.36	
Brule Hatchery.....	935.41	
Lakewood Hatchery.....	21.91	
Birchwood Hatchery.....	209.31	
Wisconsin Rapids Hatchery.....	729.16	
Marinette Hatchery.....	620.97	
Tenny Park Hatchery.....	368.17	
State Fair Exhibit.....	114.01	
Collection of fish.....	18,717.92	
Distribution of fish.....	5,904.59	
		<u>\$113,936.44</u>

DETAIL OF DISBURSEMENTS

Salaries.....	\$ 62,886.27	
Fish food.....	18,267.55	
Supplies.....	16,342.81	
Employees expenses.....	11,813.49	
Drayage.....	2,013.52	
Telephone.....	908.42	
Printing.....	34.69	
Insurance.....	1,669.19	
		<u>\$113,986.44</u>

REPAIRS AND MAINTENANCE

Appropriation.....	\$ 28,825.00	
Unexpended balance.....	18.10	
Disbursements.....		\$ 16,632.22
Unexpended balance.....		12,210.88
	<u>\$ 28,843.10</u>	<u>\$28,843.10</u>

CLASSIFICATION OF DISBURSEMENTS

Forestry.....	\$668.56	
Fisheries.....	14,352.38	
Parks.....	1,258.05	
Wardens.....	353.23	
		<u>\$16,632.22</u>

DISBURSEMENTS BY HATCHERIES

Madison Hatchery.....	\$1,963.58	
Bayfield Hatchery.....	3,192.09	
Minocqua Hatchery.....	697.48	
Delafield Hatchery.....	756.75	
Wild Rose Hatchery.....	2,804.39	
Sturgeon Bay Hatchery.....	90.39	
Sheboygan Hatchery.....	404.63	
Osceola Hatchery.....	1,917.63	
Westfield Hatchery.....	41.77	
Hayward Hatchery.....	284.45	
St. Croix Falls Hatchery.....	701.50	
Eau Claire Hatchery.....	22.88	
Brule Hatchery.....	50.00	
Birchwood Hatchery.....	37.15	
Tenny Park Hatchery.....	58.18	
Collection of fish.....	619.12	
Distribution of fish.....	592.65	
Eagle River Hatchery.....	7.74	
Sparta Hatchery.....	110.00	
		<u>\$14,352.38</u>

DISBURSEMENTS BY PARKS

Peninsula Park.....	\$133.58	
Devils Lake Park.....	931.19	
Inter State Park.....	106.10	
Pattison Park.....	18.50	
Brule Park.....	49.50	
Perrot Park.....	19.18	
		<u>\$1,258.05</u>

PROPERTY AND IMPROVEMENTS

Appropriation.....	\$89,625.00	
Unexpended balance.....	1,723.91	
Refund.....	1.88	
Sale of automobiles.....	1,062.73	
Disbursements.....		\$66,533.44
Unexpended balance.....		25,880.08
	<u>\$92,413.52</u>	<u>\$92,413.52</u>

CLASSIFICATION OF DISBURSEMENTS

Administration.....	\$309.18	
Forestry.....	20,952.76	
Parks.....	11,389.68	
Wardens.....	7,991.94	
Fisheries.....	25,889.88	
		<u>\$92,413.52</u>

DISBURSEMENTS BY PARKS

Parks administration.....	\$180.38	
Peninsula Park.....	940.88	
Devils Lake Park.....	2,618.95	
Northern Forest Park.....	4,381.92	
Nelson Dewey Park.....	76.27	
Interstate Park.....	1,187.30	
Tower Hill Park.....	25.90	
Pattison Park.....	1,009.37	
Belmont Park.....	78.14	
Cushing Memorial Park.....	808.05	
Perrot Park.....	82.52	
		<u>\$11,389.68</u>

DISBURSEMENTS BY HATCHERIES

Fisheries administration.....	\$597.64	
Madison Hatchery.....	1,840.62	
Bayfield Hatchery.....	1,129.97	
Minoqua Hatchery.....	2,142.77	
Delafield Hatchery.....	5,488.35	
Wild Rose Hatchery.....	536.46	
Sturgeon Bay Hatchery.....	52.65	
Sheboygan Hatchery.....	90.39	
Osceola Hatchery.....	1,523.20	
Westfield Hatchery.....	383.06	
Hayward Hatchery.....	449.04	
St. Croix Falls Hatchery.....	1,178.83	
Eau Claire Hatchery.....	993.84	
Sparta Hatchery.....	31.53	
Spooner Hatchery.....	40.80	
Eagle River Hatchery.....	103.19	
Brule Hatchery.....	874.43	
Lakewood Hatchery.....	12.00	
Birchwood Hatchery.....	312.37	
Wisconsin Rapids Hatchery.....	12.00	
Tenny Park Hatchery.....	8.65	
Collection of fish.....	967.45	
Distribution of fish.....	7,120.64	
		<u>\$25,889.88</u>

BOUNTIES

Disbursements.....	\$81,461.00	
		<u>\$81,461.00</u>

EMERGENCY FIRE WARDENS

Disbursements.....	\$10,506.62	
		<u>\$10,506.62</u>

Unexpended balance.....	\$2,046.43	
Reverted from Land Exchange Fund.....	25,000.00	
Receipts for year.....	4,780.26	
Disbursements.....		\$5,557.63
Transferred to 20.20-6b.....		3,000.00
Transferred to 20.20-6d.....		17,000.00
Unexpended balance.....		6,269.06
	<u>\$31,826.69</u>	<u>\$31,826.69</u>

DETAIL OF DISBURSEMENTS

Supplies.....	\$5,557.63	
		<u>\$5,557.63</u>

BIENNIAL REPORT

67

LAND AND IMPROVEMENTS WESTFIELD HATCHERY

Appropriation—Land	\$2,000.00	
Appropriation—Improvements	1,000.00	
Disbursements—Land		\$1,300.00
Unexpended balance		1,700.00
	\$3,000.00	\$3,000.00

STATE PARK RECREATION

Appropriation	\$5,000.00	
Receipts	2,287.92	
Disbursements		\$2,732.61
Unexpended balance		4,555.31
	\$7,287.92	\$7,287.92

DETAIL OF DISBURSEMENTS

Salaries		\$2,445.25
Supplies		287.36
		\$2,732.61

COPPER FALLS PARK

Appropriation	\$17,000.00	
Unexpended balance		\$17,000.00
	\$17,000.00	\$17,000.00

FIRE PREVENTION AND CONTROL CLARK-McNARY LAW

Unexpended balance	\$16,746.93	
Reimbursed by U. S. Gov't	19,825.98	
Refunds	26.94	
Disbursements		\$21,880.65
Unexpended balance		14,719.20
	\$36,599.85	\$36,599.85

DETAIL OF DISBURSEMENTS

Salaries		\$8,653.59
Supplies		11,074.45
Employees expenses		1,753.87
Printing		398.74
		\$21,880.65

DEVILS LAKE BOAT FUND

Unexpended balance	\$2,584.87	
Receipts for year	1,852.90	
Disbursements		\$1,280.16
Unexpended balance		3,157.61
	\$4,437.77	\$4,437.77

DETAIL OF DISBURSEMENTS

Salaries		\$576.00
Supplies		704.16
		\$1,280.16

LAND AND HATCHERY IN RACINE, WALWORTH OR KENOSHA COUNTY

Appropriation	\$10,000.00	
Disbursements		\$21.40
Unexpended balance		9,978.60
	\$10,000.00	\$10,000.00

DETAIL OF DISBURSEMENTS

Employees expenses		\$21.40
		\$21.40

WISCONSIN CONSERVATION COMMISSION

ROUGH FISH—NORTHERN WATERS

Appropriation.....	\$15,000.00	
Unexpended balance.....	1,083.28	
Disbursements.....		\$4,875.82
Unexpended balance.....		11,207.46
	<u>\$16,083.28</u>	<u>\$16,083.28</u>

DETAIL OF DISBURSEMENTS

Salaries.....	\$3,567.50	
Supplies.....	1,201.76	
Employees expenses.....	106.56	
		<u>\$4,875.82</u>

NEW HATCHERY—LANGLADE COUNTY

Appropriation.....	\$4,000.00	
Unexpended balance.....		\$4,000.00
	<u>\$4,000.00</u>	<u>\$4,000.00</u>

NEW HATCHERY—FORT ATKINSON

Appropriation.....	\$3,000.00	
Unexpended balance.....		\$3,000.00
	<u>\$3,000.00</u>	<u>\$3,000.00</u>

FOREST NURSERY

Appropriation.....	\$14,500.00	
Unexpended balance.....	1.93	
Disbursements.....		\$12,601.81
Unexpended balance.....		1,900.12
	<u>\$14,501.93</u>	<u>\$14,501.93</u>

DETAIL OF DISBURSEMENTS

Salaries.....	\$6,588.58	
Supplies.....	5,450.56	
Employees expenses.....	562.67	
		<u>\$12,601.81</u>

ROUGH FISH—WINNEBAGO WATERS

Appropriation.....	\$20,000.00	
Unexpended balance.....	6,857.77	
Rough fish receipts.....	432.09	
Disbursements.....		\$9,450.12
Unexpended balance.....		17,839.74
	<u>\$27,289.86</u>	<u>\$27,289.86</u>

DETAIL OF DISBURSEMENTS

Salaries.....	\$5,495.75	
Supplies.....	3,724.42	
Employees expenses.....	223.95	
Drayage.....	6.00	
		<u>\$9,450.12</u>

MISSISSIPPI RIVER FISH RESCUE WORK

Unexpended balance.....	\$8,615.40	
Disbursements.....		\$765.87
Repealed by Legislature — 1927.....		7,849.53
	<u>\$8,615.04</u>	<u>\$8,615.40</u>

DETAIL OF DISBURSEMENTS

Supplies.....		\$729.80
Employees expenses.....		36.07
		<u>\$765.87</u>

BIENNIAL REPORT

69

STREAM POLLUTION

Unexpended balance.....	\$2,132.37	
Disbursements.....		\$2,031.85
Repealed by Legislature—1927.....		100.52
	<u>\$2,132.37</u>	<u>\$2,132.37</u>

DETAIL OF DISBURSEMENTS

Salaries.....	\$416.98	
Printing.....	1,475.18	
Employees expenses.....	139.69	
		<u>\$2,031.85</u>

HATCHERY—EAU CLAIRE

Appropriation.....	\$4,000.00	
Disbursements.....		\$1,395.91
Unexpended balance.....		2,604.09
	<u>\$4,000.00</u>	<u>\$4,000.00</u>

DETAIL OF DISBURSEMENTS

Supplies.....	\$1,313.03	
Salaries.....	82.88	
		<u>\$1,395.91</u>

REMODELLING HATCHERY AND ADDITIONAL WELLS—WESTFIELD

Appropriation—Remodelling.....	\$3,500.00	
Appropriation—Wells.....	500.00	
Disbursements—Remodelling.....		\$5.68
Disbursements—Wells.....		236.55
Unexpended balance—Remodelling.....		3,494.32
Unexpended balance—Wells.....		263.45
	<u>\$4,000.00</u>	<u>\$4,000.00</u>

DETAIL OF DISBURSEMENTS

Supplies.....	\$242.23	
		<u>\$242.23</u>

HORICON RIVER DAM

Appropriation.....	\$10,000.00	
Unexpended balance.....		\$10,000.00
	<u>\$10,000.00</u>	<u>\$10,000.00</u>

HORICON MARSH REFUGE

Appropriation.....	\$25,000.00	
Unexpended balance.....		\$25,000.00
	<u>\$25,000.00</u>	<u>\$25,000.00</u>

EMERGENCY APPROPRIATION FROM CONSERVATION FUND

Equipping additional fire districts

Unexpended balance.....	\$10,446.26	
Disbursements.....		\$10,387.66
Unexpended balance.....		67.60
	<u>\$10,446.26</u>	<u>\$10,446.26</u>

DETAIL OF DISBURSEMENTS

Salaries.....	\$3,914.05	
Supplies.....	6,226.62	
Employees expenses.....	237.99	
		<u>\$10,387.66</u>

WISCONSIN CONSERVATION COMMISSION

EMERGENCY APPROPRIATION FROM CONSERVATION FUND

Mississippi Hatchery sites		
Unexpended balance.....	\$20,000.00	
Unexpended balance.....		\$20,000.00
	\$20,000.00	\$20,000.00
PARK ROADS		
Appropriation.....	\$50,000.00	
Unexpended balance.....	62,158.63	
Refund.....	309.75	
Disbursements.....		\$80,129.80
Unexpended balance.....		32,338.58
	\$112,468.38	\$112,468.38
DETAIL OF DISBURSEMENTS		
Salaries.....	\$10,499.37	
Supplies.....	69,630.43	
		\$80,129.80
REFORESTATION FUND		
Unexpended balance.....	\$2,882.80	
Receipts.....	1,112.30	
Disbursements.....		\$1,324.97
Unexpended balance.....		2,882.80
	\$3,995.10	\$3,995.10
DETAIL OF DISBURSEMENTS		
Supplies.....	\$442.51	
Employees expenses.....	53.96	
Salaries.....	828.50	
		\$1,324.97
FIRE LOSS—VILAS COUNTY HOUSE		
Unexpended balance.....	\$2.28	
Disbursements.....		\$2.28
	\$2.28	\$2.28
DETAIL OF DISBURSEMENTS		
Supplies.....	\$2.28	
		\$2.28
FIRE LOSS—NETS, MINOCQUA HATCHERY		
Unexpended balance.....	\$311.40	
Disbursements.....		\$311.40
	\$311.40	\$311.40
DETAIL OF DISBURSEMENTS		
Supplies.....	\$311.40	
		\$311.40
FIRE LOSS—TOMAHAWK LAKE CABIN		
Unexpended balance.....	\$1,442.77	
Disbursements.....		\$1,236.43
Unexpended balance.....		206.34
	\$1,442.77	\$1,442.77
DETAIL OF DISBURSEMENTS		
Supplies.....	\$1,236.43	
		\$1,442.77

BIENNIAL REPORT

71

CHAPTER 360, LAWS OF 1927

Unexpended balance.....	\$517.50	
Disbursements.....		\$517.50
	\$517.50	\$517.50

DETAIL OF DISBURSEMENTS

Supplies.....	\$517.50	
		\$517.50

Chapter 282, Laws of 1927

Appropriation.....	\$991.57	
Disbursements.....		\$991.57
	\$991.57	\$991.57

DETAIL OF DISBURSEMENTS

Salaries.....	\$991.57	
		\$991.57

RECEIPTS

Nonresident fishing licenses.....		\$205,937.77
Fish shipping coupons.....		9,410.20
Nonresident hunting licenses.....		5,849.90
Resident hunting licenses.....	157,446.15	
Settler's hunting licenses.....		128.50
Duplicate licenses.....		242.00
Great Lakes fishing licenses.....		8,805.00
Mississippi River fishing licenses.....		2,947.50
Rough fish.....		45,622.81
Confiscation.....		14,156.82
Warden fees.....		3,246.96
Trapping licenses.....		19,816.75
Trap tags.....		19,467.66
Deer tags.....		1,381.50
Set line licenses.....		1,997.90
Guide licenses.....		588.00
Nursery.....		2,837.18
Fish dealer licenses.....		1,275.00
Camming licenses.....		1,675.00
Park leases and rentals.....		4,780.26
Park recreation.....		2,287.92
Devils Lake Boat receipts.....		1,852.90
Fire Control (Weeks Law).....		19,852.92
Decoy bands.....		1,091.90
Interest.....		13,303.36
Refunds.....		390.80
Miscellaneous.....		13,736.72
Refrestation receipts.....		1,112.30
		\$561,191.68

CONSERVATION FUND

Unexpended balance.....	\$528,994.24	
Receipts.....	546,385.22	
Interest on fund.....	13,303.36	
Refunds on disbursements.....	390.80	
Disbursements.....		\$576,152.20
Bounties.....		81,461.00
Refunds of receipts.....		6,192.48
Unexpended balance.....		425,267.94
	\$1,089,073.62	\$1,089,073.62

DEPARTMENT OF FISHERIES

DISTRIBUTION, 1927

Hatchery	Variety of fish	Number
Madison	Rainbow (Misc.) Trout	225
Bayfield	Brook Trout	1,029,080
	Brown Trout	1,127,900
	Lake Trout	4,072,600
Wild Rose	Salmon	185,000
	Brook Trout	65,000
	Brown Trout	663,000
	Rainbow Trout	500,000
St. Croix Falls	Brook Trout	4,411,000
	Brown Trout	115,000
	Rainbow Trout	100,000
Osceola	Brook Trout	859,700
	Brown Trout	150,000
Westfield	Brook Trout	298,000
	Brown Trout	50,000
Lakewood	Brook Trout	150,000
Hayward	Brook Trout	209,200
Wausaukee	Brook Trout	200,000
Wisconsin Rapids	Rainbow Trout	234,000
Brule	Brook Trout	200,000
Sparta	Brook Trout	290,000
	Brown Trout	10,000
Eau Claire	Brook Trout	360,000
	Brown Trout	144,000
Hayward	Wall Eyed Pike	18,000,000
Minocqua	Wall Eyed Pike	35,279,000
	Black Bass Fry	150,000
	Black Bass Fingerling	525
	Muskellunge Fry	134,500
	Muskellunge Fingerling	1,414
Delafield	Wall Eyed Pike	48,000,000
	Black Bass	98,000
Eagle River	Wall Eyed Pike	33,920,000
Spooner	Wall Eyed Pike	25,200,000
Birchwood	Wall Eyed Pike	32,400,000
Haugen	Wall Eyed Pike	22,950,000
Sheboygan	Lake Trout	9,400,000
	Whitefish Fry	10,300,000
Sturgeon Bay	Lake Trout	16,000,000
	Whitefish Fry	3,000,000
Tenney Park	Wall Eyed Pike	None
Gills Landing	Pickeral Fingerling	181,200
Mississippi River	Miscellaneous Fish	14,707,700
Neeah	Perch and White Bass	3,863,700
Chippewa River	Pickeral	1,000
U. S. Fisheries Station	Brook Trout	178,020

DISTRIBUTION, 1928

Hatchery	Variety of fish	Number
Madison	Brown Trout	51,800
	Brook Trout	500,000
Bayfield	Brown Trout	700,000
	Lake Trout	3,925,000
Wild Rose	Brown Trout	829,000
	Rainbow Trout	400,000
St. Croix Falls	Brook Trout	4,543,900
	Brook Trout	878,500
Osceola	Brown Trout	235,900
	Brook Trout	300,000
Westfield	Brown Trout	209,200
	Brook Trout	205,500
Hayward	Wall Eyed Pike Fry	16,200,000
	Rainbow Trout	140,000
Wisconsin Rapids	Brook Trout	145,050
Brule	Brook Trout	252,800
Sparta	Brown Trout	239,000
	Brook Trout	299,600
Eau Claire	Brook Trout	198,400
	Wall Eyed Pike Fry	37,380,000
Minocqua	Black Bass Fry	130,000
	Pickeral	60,000
	Muskellunge	1,743
	Wall Eyed Pike Fry	22,950,000
Delafield	Black Bass Fry	12,800
	Black Bass Fingerling	7,800
	Blue Gills or Roach	15,600
	Wall Eyed Pike Fry	28,640,000
	Wall Eyed Pike Fry	13,500,000
Spooner	Wall Eyed Pike Fry	18,900,000
Birchwood	Lake Trout Fry	9,500,000
Sheboygan	Lake Trout Fry	75,000
	Whitefish	950,000
Sturgeon Bay	Pike	1,500,000
	Wall Eyed Pike	16,800,000
Tenney Park	Pickeral	52,575
Gills Landing	Perch	64,000
Neenah	White Bass	64,000
	Pickeral	68,000
Green Lake	Miscellaneous	3,699
	Rescued Fish (Perch)	120,000
Green Bay	Brook Trout	45,000
U. S. Fisheries Station		

**SUMMARY OF FOREST AND MARSH FIRES FOR
THE YEAR 1926 AS REPORTED BY
DISTRICT FOREST RANGERS**

During the year 238 fires were reported by the district forest rangers in the organized fire districts. No reports were received from town chairmen in unorganized territory.

The spring months, as the following tables will indicate, proved to be the season of greatest hazard from forest fires. A short, but rather severe, dry spell developed in the months of April and May when approximately 75 per cent of the fires occurred and the looked-for dry time in October failed to materialize entirely. The fall was exceptionally rainy, cold and of very limited fire hazard. Altogether the fire season of 1926 was of about normal proportions.

District	No. of Fires	% of Fires	Acres Burned	Damage
1-----	38	16.0	35,266	\$ 108,822.00
2-----	29	12.2	9,049	2,278.00
3-----	25	10.5	5,958	4,305.00
4-----	37	15.5	10,040	40,970.00
5-----	81	34.0	16,831	None given
6-----	28	11.8	7,391	52,795.00
Total -----	238	100.0%	84,535	\$ 209,170.00

FIRES BY CAUSES

District	Lightning	R. R.	Clearing	Logging	Camping	Smokers	Incendary	Misc.	Unknown
1-----	0	9	2	0	1	6	0	1	19
2-----	0	2	11	0	0	1	0	0	15
3-----	0	8	2	0	2	4	0	1	8
4-----	0	1	3	0	2	14	0	0	24
5-----	0	14	8	0	15	14	0	2	28
6-----	0	6	5	2	0	5	0	0	10
Total -----	0	40	36	2	20	32	0	4	104
% -----		16.8	15.2	0.8	8.4	13.4		1.7	43.7

FIRES BY MONTHS

District	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1-----	0	15	20	0	1	0	0	2	0
2-----	0	12	17	0	0	0	0	0	0
3-----	0	1	21	2	1	0	0	0	0
5-----	0	3	33	0	1	0	0	0	0
5-----	0	7	61	9	2	0	0	2	0
6-----	0	11	17	0	0	0	0	0	0
Total -----	0	49	169	11	5	0	0	4	0
% -----		20.6	71.0	4.6	2.1			1.7	

FIRES BY AREA CLASSES

District	A	B	C	D	E
	Under $\frac{1}{4}$ acre	$\frac{1}{4}$ to 10 acres	11 to 100 acres	101 to 1,000 acres	1,000 acres and over
1.....	4	6	12	10	6
2.....	0	7	13	7	2
3.....	1	5	10	6	3
4.....	0	4	15	14	4
5.....	0	13	39	24	5
6.....	0	7	13	6	2
Total.....	5	42	102	67	22
%.....	2.1	17.6	42.8	28.1	9.4

**SUMMARY OF FOREST AND MARSH FIRES FOR
THE YEAR 1927 AS REPORTED BY
DISTRICT FOREST RANGERS**

During the year 229 fires were reported by the district forest rangers in the organized fire districts. No reports were received from town chairmen in unorganized territory, but reports were received from one additional fire district which had been organized during the year.

As usual, the months of April, May and June and August, September and October showed to be the season of greatest hazard. No prolonged dry spell occurred during the year but there were intermittent dry periods of short duration. As a general proposition the risk during this season was a little below normal and while a considerable number of fires occurred, considering the weather circumstances, the area burned over was materially less than had been reported for a number of years, as well as the damage incurred.

District	No. of Fires	% of Fires	Acres Burned	Acreage burned per fire	Reported Damage
1.....	46	20.	2,237	49	\$ 2,790.00
2.....	26	11.3	1,602	61	68.00
3.....	28	12.2	428	15	395.00
4.....	34	14.8	3,075	90	2,454.95
5.....	58	25.3	2,897	49	1,201.00
6.....	17	7.4	1,276	75	2,293.00
8.....	20	9.	678	34	250.00
Total.....	229	100%	12,193	53	\$ 9,451.95

FIRES BY CAUSES

District	Lightning	R.R.	Log-ging	Clearing	Camp Fires	Smok-ers	In-cend-ary	Misc.	Un-known	Total
1-----	0	3	2	10	1	3	2	0	25	46
2-----	0	2	0	4	1	3	2	1	13	26
3-----	0	2	0	7	6	4	0	0	9	28
4-----	0	0	11	2	2	3	2	0	14	34
5-----	0	12	0	7	3	13	3	2	18	58
6-----	0	2	0	5	1	3	0	2	4	17
8-----	0	4	0	7	1	3	0	0	5	20
Total-----	0	25	13	42	15	32	9	5	88	229

FIRES BY MONTHS

District	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1-----	0	11	8	8	0	4	4	11	0
2-----	1	14	4	1	1	1	1	3	0
3-----	1	1	2	1	2	3	13	5	0
4-----	0	0	1	11	0	9	11	2	0
5-----	0	7	7	10	0	12	11	10	1
6-----	0	3	0	1	0	1	1	11	0
8-----	0	7	2	7	0	2	0	2	0
Total-----	2	43	24	39	3	32	41	44	1
%-----	9	18.8	10.5	17.0	1.3	14.0	17.9	19.2	.4

FIRES BY AREA CLASSES

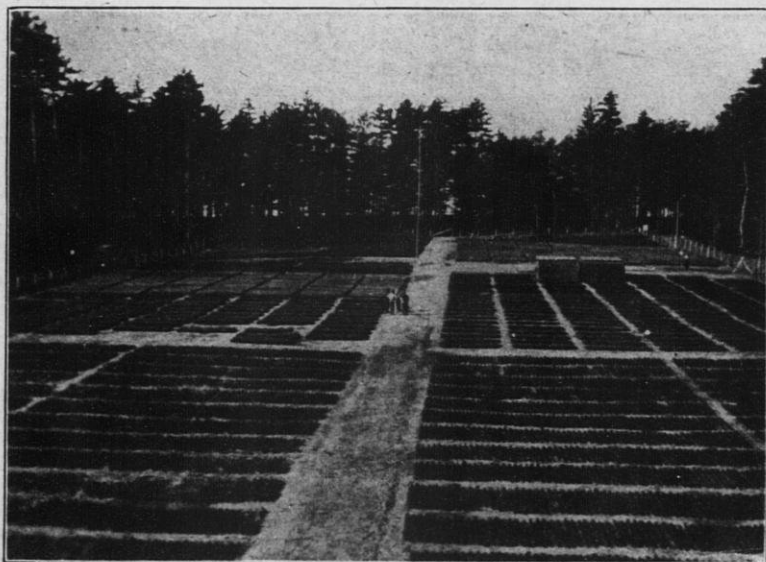
District	A Under $\frac{1}{4}$ acre	B $\frac{1}{4}$ to 10 acres	C 11 to 100 acres	D 101 to 500 acres	E 500 acres and over
1-----	0	22	17	7	0
2-----	0	9	13	4	0
3-----	2	17	9	0	0
4-----	1	10	16	7	1
5-----	1	23	25	9	0
6-----	0	9	7	0	1
8-----	1	8	11	0	0
Total-----	5	98	98	27	2
%-----	2.2	42.6	42.6	11.7	.9

TREES SHIPPED FROM TROUT LAKE NURSERY IN 1927

Species	For Private Plantings	For State Plantings
White Pine.....	300,250	3,000
Norway Pine.....	524,645	576,000
Scotch Pine.....	30,695	-----
Norway Spruce.....	134,218	-----
White Spruce.....	45,357	-----
Blue Spruce.....	3,085	-----
Total.....	1,038,250	579,000
Grand Total.....		1,611,250

TREES SHIPPED FROM TROUT LAKE NURSERY IN 1928

Species	For Private Plantings	For State Plantings
White Pine.....	366,875	22,050
Norway Pine.....	533,325	609,650
Jack Pine.....	37,850	-----
Scotch Pine.....	53,800	5,000
Norway Spruce.....	139,914	100
Totals.....	1,131,764	636,800
Grand Totals.....		1,768,564



View of Nursery at Trout Lake.

**FOREST PLANTING STOCK DISTRIBUTED FROM
TROUT LAKE NURSERY IN 1928**

County	Norway Pine	White Pine	Scotch Pine	Jack Pine	Norway Spruce	Total
Adams	4,000	1,000	4,800	1,500	1,300	12,600
Ashland	200	100		100	2,000	2,400
Bayfield	5,900	8,100	1,000	4,600	2,000	21,600
Burnett	500	200	200	100		1,000
Barron	1,000					1,000
Brown					500	500
Buffalo	3,600	6,500			300	10,400
Chippewa	3,800	2,000	600			6,400
Calumet	800	500			2,000	3,300
Clark		1,700			1,100	2,800
Columbia	4,700				500	5,200
Dunn	2,450	2,950	900			6,300
Douglas	19,350	1,000	10,500			30,850
Dane	7,800	8,150	2,100	1,900	1,264	21,214
Door	26,450	21,250				47,700
Dodge	4,300	4,300	600		400	10,200
Eau Claire	2,700	3,000	1,500	500	600	8,300
Forest	26,850	58,350			50	85,250
Fond du Lac	6,900	9,200				16,100
Green Lake	3,200	1,400			200	4,800
Green		1,100			200	1,300
Grant	2,950	3,450		400		6,900
Iron	3,000		1,000			4,000
Jackson	500	200			3,000	3,700
Jefferson	4,100	2,100	100	100	2,200	8,600
Juneau	500	5,000				5,500
Kenosha	900	4,200	200	200		5,500
Kewaunee		2,400	400			2,800
Lincoln	52,900	40,600	1,000	10,000	55,000	159,500
La Crosse	200	1,200				1,400
Langlade	4,200	2,400				6,600
Marinette	56,000	23,000		2,000	4,000	85,000
Monroe	3,700	16,050			2,500	22,250
Manitowoc	600	1,600	600	300	1,000	4,100
Milwaukee	26,525	9,275	4,900	3,100	2,438	46,238
Marathon	16,300	1,100	1,600		200	19,200
Marquette	9,950	5,500	250			15,700
Ozaukee	18,600	12,750	550	1,500	4,000	37,400
Outagamie	2,400	1,700			20	4,120
Oconto				1,000		1,000
Oncida	27,250	8,850	1,650	100	3,144	40,994
Pierce	22,600					22,600
Polk	1,000	500				1,500
Portage	17,900	3,500	500	500		22,400
Price	27,300				25	27,325
Racine	2,700	1,100	200	1,100	2,200	7,300
Rock	2,200	3,000			1,035	6,335
Rusk	7,400	1,600				9,000
Sauk	6,950	4,350	1,300		350	12,950
St. Croix	8,950	550	600	500	1,750	12,350
Sheboygan	6,100	2,300	1,600	1,400	4,000	15,400
Sawyer	8,000	8,600	1,000			17,600
Shawano	2,400	3,400			4,000	9,800
Trempealeau	1,800	1,500			1,000	4,300
Vilas	582,600	11,000	3,550	45,500	776	643,426
Vernon	250	150	100			500
Washburn	1,800	3,300	300			5,400
Waupaca	15,300	11,000	2,600	3,100	600	32,600
Waukesha	14,400	17,150	4,700	1,100	6,300	43,600
Washington	6,300	10,100	150	100	20,150	36,800
Walworth	500	500			1,000	2,000
Winnebago	5,700	9,300	1,700	500	3,000	20,200
Waushara	3,650	10,000	2,300	1,650	1,500	19,100
Wood	6,600	3,850	3,500		2,512	16,462
Total output of Nursery						1,768,564

REPORT, FOREST PROTECTION AFFAIRS FOR 1928

General

The fire season of 1928 was one of normal to light risk. A rather backward April was followed by a sharp, dry spell in May. During this dry spell almost 70 per cent of the fires occurred. The summer was cool with well distributed rains; the fall months were unusually wet. Little or no risk occurred in October when trouble is generally expected. Altogether 430 fires were reported, burning over 44,139 acres, and causing a damage of \$27,627.00. The appended tables will give full information on the fires occurring and other details relating to expenditures and comparisons. It will be noted that almost half the area burnt over occurred in District No. 9. This is a new district started in the spring of 1928 and a considerable part of this area burned over was marsh land. One fire occurring in December burned over almost 5,000 acres of marsh. The total area burned over (44,139 acres, above mentioned) includes both forest and marsh land. The field force consisted of 11 rangers, 24 seasonal men, 371 emergency fire wardens and look-out men as needed.

Progress During 1928

The limits of the area protected from running fire was enlarged materially during 1928. The area included within all forest protection districts at the end of 1927 was 8.6 million acres; at the end of 1928, 12.5 million acres. The organization of three new districts in the spring of 1928 thus brought under protection an additional 3.9 million acres. In addition, work was commenced in another district embracing one million acres, which will come under full protection during 1929. The equipment in the various districts was increased as follows: 5 ranger offices and garage buildings erected, 22 look-outs constructed, 227 miles of telephone line built. The number of Evinrude pumps, hose for same and Indian fire pumps doubled, and the supply of hand tools, such as shovels, axes, pails, etc., was materially increased. The road-side fire prevention signs were renewed or new set-ups made in all districts.

Public Relations

In every district the local town and county officers are cooperating with the rangers toward better fire prevention and control. The feeling is wide-spread among the local citizens that these running fires must be stopped. With the state taking hold of the job and developing a definite and organized program, stability and method replace uncertainty and disarray. The gradual working out of the burning permit law brings a needed regulation in the use of out-door fires in all districts. The commission and the district ranger have had the aid of county school superintendents, county agents and other public officers in the fire prevention campaign.

In addition the word of better prevention has been carried into every nook and corner of the upper counties by lumbermen, land-

owners, summer resort keepers, by the press and many other agencies, and the effect of this drive of the past five years has resulted in a new conception of the forest fire problem by the local people. Common observation indicates that people in general are much more careful today than they have ever been before; that large fires are decreasing, and that we are on the way to solve the fire problem and bring it under control.

Work for 1929

The following summary indicates the line of progress for 1929:

1. Get all forest protection districts fully organized and the fire detection systems completed.
2. Increase the boundaries of districts so as to include all land requiring protection.
3. Increase equipment in each district, especially by the addition of a suitable number of light fire-fighting squad cars. Keep all equipment in good shape and have same ready for all emergencies.
4. Organize and train local fire fighting squads, particularly in the use of fire fighting equipment.
5. Study improved methods of fire fighting; of areas of special risk, and the improvement of fire fighting equipment and assembly.
6. Improve the district bookkeeping systems, the district maps, and all check-ups on fires and expenses incurred in fire suppression.
7. Improve the enforcement of the burning law, the inspection of locomotive spark arresting devices and other forest protection laws.
8. Improve public relations, prepare exhibits for local fairs, keep road-side fire prevention signs in good shape and improve same. Maintain suitable contacts with county boards, county officials, schools, the county agent, highway and railroad workers and land owners in general.
9. Maintain close inspection and frequent contacts with the field force of seasonal and emergency wardens.

SUMMARY OF FOREST AND MARSH FIRES

For the year 1928

AS REPORTED BY DISTRICT FOREST RANGERS

District	No. of Fires	% of Fires	Acres Burned	Acreage burned per fire	Reported Damage
1.....	59	13.6	4,601	78	\$2,961.60
2.....	44	12	1,811	38	1,250.00
3.....	50	11.5	3,495	69	2,386.00
4.....	35	8	6,186	175	650.00
5.....	76	17.6	2,162	28	2,596.50
6.....	26	6	767	33	1,049.00
7.....	23	5	1,037	45	987.50
8.....	53	12	1,883	35	1,883.00
9.....	52	12	21,606	415	12,803.85
11.....	12	2.3	591	49	1,060.00
Total.....	430	100%	44,139	103	\$27,627.45

FIRE BY CAUSES

Dist.	Fisher- men	R. R.	Log- ging	Clear- ing	Camp Fires	Smok- ers	Incend- iary	Misc.	Un- known	Total
1	0	18	1	6	3	6	1	3	21	59
2	0	7	3	11	2	10	2	2	7	44
3	0	11	1	11	8	8	0	1	10	50
4	0	3	2	14	2	0	0	0	14	35
5	16	12	2	2	5	13	4	3	19	76
6	0	3	0	4	4	3	7	0	5	26
7	0	0	2	6	0	0	8	0	7	23
8	0	4	0	14	4	20	4	1	6	53
9	0	8	3	9	10	4	4	2	12	52
11	0	0	0	1	0	2	0	0	9	12
Total	16	66	14	78	38	66	30	12	110	430

FIRE BY MONTHS

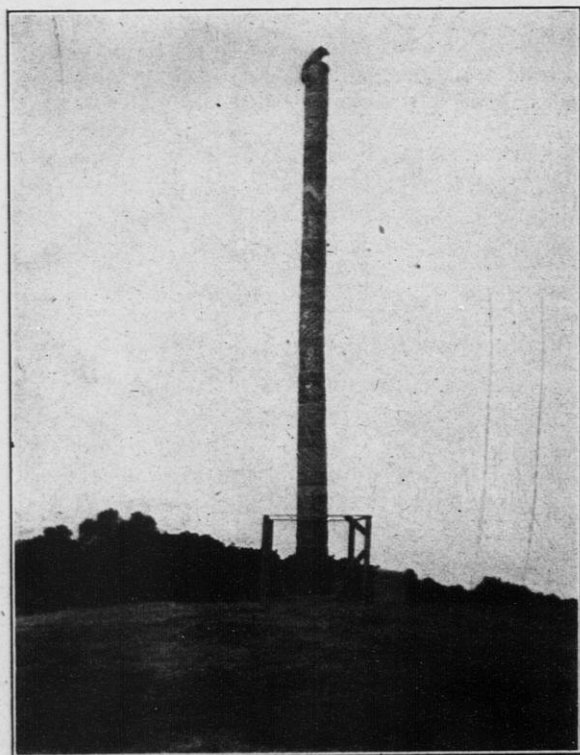
District	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	0	11	42	5	1	0	0	0	0
2	1	6	29	6	0	0	0	1	1
3	0	1	38	5	1	1	0	3	1
4	0	0	24	9	0	2	0	0	0
5	0	6	44	16	2	4	3	0	1
6	0	1	20	4	0	0	0	1	0
7	0	3	15	3	0	0	0	1	1
8	0	3	42	6	0	1	1	0	0
9	0	4	32	9	1	0	3	0	3
11	0	1	3	2	1	1	0	1	3
Total	1	36	289	65	6	9	7	7	10
%		8	67	15	4	2	1	1	2

FIRES BY AREA CLASSES

District	A	B	C	D	E
	Under $\frac{1}{4}$ acre	$\frac{1}{4}$ to 10 acres	11 to 100 acres	101 to 500 acres	500 acres and over
1	4	28	20	5	2
2	9	14	14	7	0
3	14	13	16	6	1
4	0	5	22	5	3
5	7	35	30	4	0
6	0	12	13	1	0
7	0	9	10	4	0
8	1	19	29	4	0
9	0	12	24	9	7
11	0	7	3	2	0
Total	35	154	181	47	13
%	8	36	42	11	3

COSTS AND AREAS BURNED

Year	Total Cost of Protection	Area Under Protection in Millions Acres	Cost per Acre in Cents	No. of Fires	Area Burned Over	Acreage Per Fire	Area Under Protection in Million Acres	% of Area Burned	Damage
1924-----	\$ 32,688.63	3.0	\$1.09	248	76,466	309	3.0	2.5	29,056
1925-----	57,978.44	7.2	.80	415	273,084	660	7.2	3.8	403,560
1926-----	81,151.96	7.2	1.13	238	84,535	359	7.2	1.2	209,170
1927-----	98,617.81	8.6	1.15	229	12,193	53	8.6	.14	9,452
1928-----	137,751.90	12.5	1.10	430	44,139	103	12.5	.35	27,627
Total..	\$408,188.83			1,560	490,417				678,865
Ave....	81,678.00	7.7	1.06	312	98,083	314	7.7	1.6	135,773

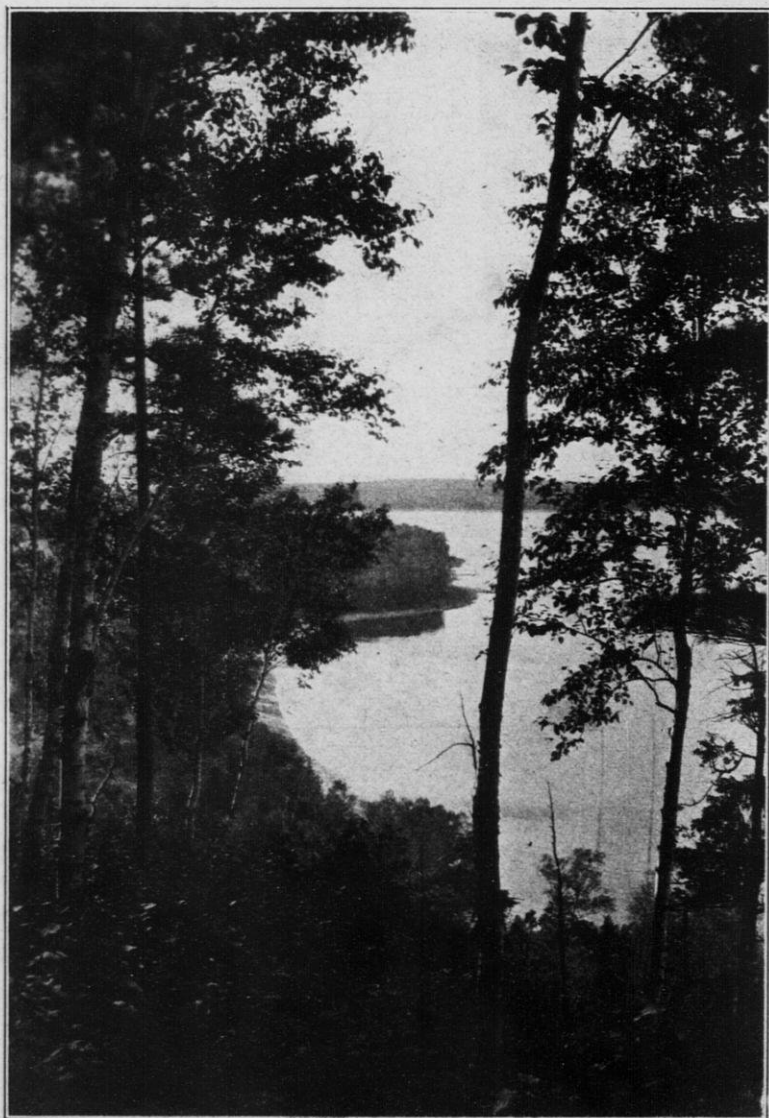


Totem pole in Peninsula State Park.

FOREST PROTECTION DISTRICTS

Personnel—Equipment, 1928

	Fire District Number											Total
	1	2	3	4	5	6	7	8	9	10	11	
Seasonal men in field.....	5	1	4	2	2	3	3	3			1	24
Emergency men in field.....	70	60	60	16	24	35	30	42	28		6	371
Telephone lines in miles												
State owned metallic.....			3	2	42	3	5	20	5			80
State owned ground.....	95	60	198	47	138	17	6	15	8			584
State wire rented poles.....	8			37		66	1		3			115
Commercial circuits.....	35		17		330	52			18		1	453
Lookout Towers												
Erected 1928.....	2				1		4	4	4	3	4	22
Previously erected.....	7	6	10	7	9	8		5		1	1	54
Co-op Lookouts.....						1			3		1	6
Evinrude Pumps.....	2	2	3	2	2	3	2	1	2	1	1	21
Hose in feet.....	1,500	1,500	2,400	2,000	5,000	3,000	2,000	1,000	2,000	1,000	1,030	22,430
Telephone poles used.....	3,040	2,440	6,464	1,667	5,184	682	386	1,225	352			21,440
Trucks.....	2	1	1	1	1	1	1	1	1	1	1	12
Shovels.....	500	552	1,300	515	760	790	256	500	485	144	475	6,277
Axes.....	40	30	46	27	72	90	60	110	60	60	49	644
Pails.....	200	100	84	145	160	300	50	250	60	60	60	1,469
Pyrene Cans.....	25			9	30	2						68
Smith Fire Pumps.....	100	120	100	119	118	80	100	150	110	50	48	1,095
Saws.....	2		6	1	2		20	5	21	20	20	97
Trailers.....	1		2	1	1	1	1	1	3			11
Tanks.....	1	1		2	2	1		1	2	1	1	13
Lanterns.....	24		30	45	60	60	30	55	30	18	30	382
Back Fire Torches.....	200	100	50	60	60	48	37	50	200	60	50	915
Tool Boxes.....	30	12	66	19	30	43	25	30	24	1		280
Buildings.....	7	1	8	2	1	1	1	3	2	1		27



Shanty Bay Shoreline, Peninsula Park.

