



# LIBRARIES

UNIVERSITY OF WISCONSIN-MADISON

## **Twenty-fifth biennial report of the State Conservation Commission of Wisconsin for the fiscal years ending June 30, 1955 and June 30, 1956. 1957**

Wisconsin. State Conservation Committee (1928-1956)  
Madison, Wisconsin: [s.n.], 1957

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

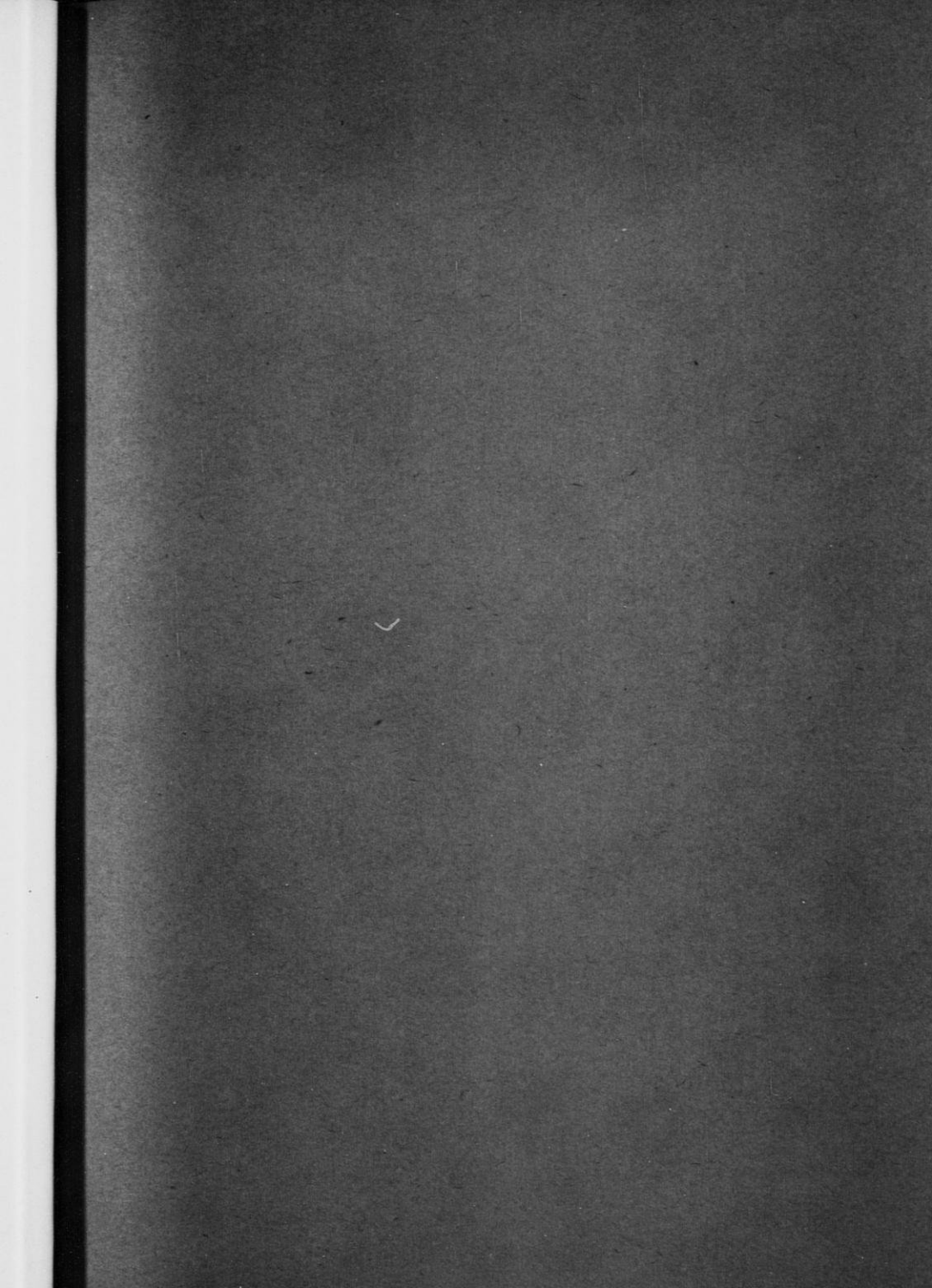
This material may be protected by copyright law (e.g., Title 17, US Code).

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.





*Agree*

17  
6  
5  
**Twenty-Fifth**

**Biennial Report**  
**of the**  
**Wisconsin State**  
**Conservation Commission**

RECEIVED  
31759  
DIV. OF WISCONSIN  
LIBRARIES



Publication 612-57

## LETTER OF TRANSMITTAL

HONORABLE VERNON W. THOMSON  
Governor of Wisconsin  
Madison, Wisconsin

Sir: In compliance with the provisions of section 14.61 of the state statutes, we have the honor to submit, for your consideration, the report of the State Conservation Commission of Wisconsin concerning its work for the biennial period ending June 30, 1956, as well as certain recommendations, which we trust will meet with your approval.

Respectfully submitted,

### STATE CONSERVATION COMMISSION

LEONARD J. SEYBERTH,  
Chairman

ARTHUR R. MACARTHUR,  
Secretary

GUIDO R. RAHR

A. W. SCHORGER

CHARLES F. SMITH

RUSSELL D. STOFFER

Jan. 10, 1957

STANDARD

## TABLE OF CONTENTS

	Page
CONSERVATION COMMISSION -----	5
ADMINISTRATION -----	6
GAME MANAGEMENT -----	11
FOREST PROTECTION -----	36
FORESTS AND PARKS -----	43
FOREST MANAGEMENT -----	71
ENGINEERING -----	91
INFORMATION AND EDUCATION -----	97
LAW ENFORCEMENT -----	106
FISH MANAGEMENT -----	109
CLERICAL -----	137
FINANCE -----	138

TWENTY-FIFTH BIENNIAL REPORT

OF THE

**STATE CONSERVATION  
COMMISSION**

OF

**WISCONSIN**

**For the Fiscal Years Ending June 30, 1955  
and June 30, 1956**



**MADISON, WISCONSIN**

**1957**

## CONSERVATION COMMISSION

LEONARD J. SEYBERTH, Eau Claire  
Chairman

ARTHUR R. MACARTHUR, Janesville  
Secretary

GUIDO R. RAHR, Manitowoc  
A. W. SCHORGER, Madison

CHARLES F. SMITH, Wausau  
RUSSELL D. STOUFFER, Shell Lake

## CONSERVATION DEPARTMENT

L. P. VOIGT

Director

JOHN A. BEALE  
Chief State Forester

C. A. BONTLY  
Finance

W. T. CALHOUN  
Information and Education

G. S. HADLAND  
Law Enforcement

C. L. HARRINGTON  
Forests and Parks

LULU M. KORN  
Clerical

GEORGE SPRECHER  
Assistant Director

NEIL LEMAY  
Forest Protection

LAURENCE F. MOTL  
Engineering

EDWARD SCHNEBERGER  
Fish Management

J. R. SMITH  
Game Management

S. W. WELSH  
Forest Management .

## Conservation Commission

The six-member Conservation Commission is the policy-making body whose judgment, perspective and effort have guided the progress of the Conservation Department. Its non-salaried members are appointed by the Governor by and with the consent of the Senate for a term of six years, two appointments being made every two years.

In keeping with Section 23.09 of the Statutes, the Commission is charged with the responsibility: "to provide an adequate and flexible system for the protection, development and use of forests, fish and game, lakes, streams, plant life, flowers and other outdoor resources in the state of Wisconsin." As authorized by statute, it makes such rules and regulations, inaugurates such studies, investigations and surveys, and establishes such services as it deems necessary to carry out the provisions and purposes of the Conservation Act.

Formal meetings of the Commission are held once a month, usually on the second Friday. All meetings of the Commission are open to the public.

Policies developed by the Commission over the years and those adopted from time to time are reviewed and codified by the Information and Education Division and will eventually be compiled in a single volume for ready reference and guidance.

In order to obtain firsthand knowledge of the state's natural resources and developments, many personal inspections are made by individual commissioners throughout the year.

In January, 1956, the Commission elected Leonard J. Seyberth as its chairman to succeed Guido Rahr, and elected Arthur R. MacArthur to replace Commissioner Seyberth as secretary.

Two commissioners, Arthur R. MacArthur of Janesville and Russell D. Stouffer of Shell Lake, were appointed by Governor Kohler to succeed Commissioners Douglas Hunt and John O. Moreland, whose terms expired on July 27, 1955.

## **Administration**

### **Conservation Director**

The Conservation Director, employed by and responsible to the Conservation Commission, is the administrative head of the Conservation Department. He assumes the responsibility for the execution of the Commission policies; exercises the powers of the Commission in the interim of its meetings but subordinate thereto, but is not delegated with authority to make rules and regulations. He is the appointing authority for personnel of the department.

### **Assistant Conservation Directors**

The primary responsibilities delegated to the Director's assistants include the following:

Assistant Director—responsible for general supervision of fish management, game management, law enforcement, information and education, engineering, and finance divisions; responsible for legal services, legislative program, relations with commission, advisory boards, executive office and those of an intra-departmental nature.

Chief State Forester—general supervision over the three forestry divisions: forest protection, forest management, and forests and parks; responsible for the state's forestry planting program and the forest inventory survey; serves as chairman of the Research Advisory Board.

## **STAFF SERVICES**

### **Assistant Secretary, Conservation Commission**

During the biennium as in the past, the Secretary of the Commission was provided with the services of an Assistant Secretary to aid him in carrying out the secretarial functions delegated to him as an officer of the Commission.

The Assistant Secretary under the supervision of the Director circularizes members of the Commission with material for consideration at their meetings or material of an informational nature, prepares the agenda for the Commission meetings, records the meetings with the aid of a tape recorder, and prepares the minutes for circularization. Maintaining records of all Commission actions, providing services to Commissioners upon request, and furnishing jurats are among the many additional duties performed by the Assistant Secretary.



## **Executive Secretary, Forestry Advisory Committee**

The executive secretary of the Forestry Advisory Committee directs the work of the Committee in a manner mutually satisfactory to the Committee and the Conservation Commission. He assumes responsibility for fostering sound working relationships between the forest industries of Wisconsin and the Commission; acts as liaison in promoting sound forestry legislation, forestry research programs, and forestry education and publicity. Investigations are undertaken and programs inaugurated at the direction of the Committee and in cooperation with the Department.

Meetings of the Committee are scheduled and conducted by the executive secretary who prepares the agenda and reports the Committee's findings and recommendations, advisory in nature, to the Commission. During the interim, Committee members are contacted individually by the executive secretary, problems discussed, studies initiated, and research undertaken.

## **Personnel Office**

The purpose of the departmental personnel office has been to establish, maintain and coordinate an integrated over-all personnel program for the entire Conservation Department. In any organization employing nearly one thousand permanent employes who perform a tremendous variance of skilled, professional and technical duties, it is in the interest of sound administration that specialists assume the responsibilities of coordinating such a well-rounded personnel program. The head of the personnel office also has general responsibility for specialized administrative projects and studies.

Among the regular personnel functions assigned to the personnel office are the following: the recruitment, selection and placement of personnel, job classification and job evaluation, training, job promotions, employe morale, supervision of centralized personnel records, formulation of personnel policies and procedures and relations with the Bureau of Personnel.

The personnel office is represented on the Personnel Council, a subcommittee of the Personnel Advisory Committee, and through regular meetings, not only gains experience and valuable data on public personnel management, but can provide information which may be of mutual interest to other operating departments and the Bureau of Personnel.

## **Legal Counsel**

The legal counsel performs work of a legal nature relating to the administration and enforcement of the conservation laws; analyzes legal documents and instruments before execution by the department; examines titles and closes land purchases; prepares legal documents and serves as consultant to departmental personnel in legal matters related to the performance of their duties; drafts commission orders; prepares recommended legislation of the department; provides the public with legal interpretation of conservation laws through personal contact and correspondence; examines

claims pertaining to bounties, and deer and bear damage; conducts formal and informal hearings in connection with the administration of the conservation laws and issues decisions based on such findings.

In addition, the legal counsel serves as administrative assistant to the assistant director.

### **Supervisor of Inventory**

The Supervisor of Inventory is the custodian of the department's records of physical property. His duties include: the maintenance of records necessary to assign responsibility for department-owned nonexpendable property and for distribution of departmental property in the best interests of the organization, the maintenance of insurance on department-owned property, and the processing of insurance claims. He investigates and makes recommendations for procedures to be used in property control.

The department's annual physical inventories are taken under the supervision of the Supervisor of Inventory.

### **Wisconsin Conservation Congress**

The Wisconsin Conservation Congress, during the last biennium, acting as an advisory body to the Wisconsin Conservation Commission, continued its effective role providing recommendations and suggestions to the Commission in regard to fishing, hunting and trapping regulations.

The Congress consists of three regular delegates and two alternates who are elected at public hearings held in each of the 71 counties of the state in May of each year.

The Executive Council, implementing its activities, recommended continuation of the several study committees for the purpose of advising the Council on recommendations to the Wisconsin Conservation Commission. The following study groups were continued: Big Game, Waterfowl, Trout, Fish, Upland Game, Fur, and Education and Public Relations. In addition, two members of the Congress were appointed as members of the Commercial Fisheries Advisory Committee.

The Executive Council, following established procedure, held four meetings during each year and each study committee met at least three times during each year. The staggered terms of the election of county Congressmen was proven most satisfactory and was continued.

Under the new rule making procedure established by the Legislature, the Congress was able to more effectively debate the merits of recommendations made by the Wisconsin Conservation Commission, and it was generally felt that this procedure has been most helpful and effective in establishing regulations based upon research and sound management.

At the state-wide meeting of the Congress on June 4, 1956, Executive Councillors were elected and they, in turn, elected Mr. Ed Morse, Jr., of Grant County, Chairman; Mr. Glen L. Garlock of Forest County, Vice-Chairman; and Mr. John M. Hammer of Dunn County, Secretary-Treasurer.

### **Forestry Advisory Committee**

The Wisconsin Forestry Advisory Committee, created for the purpose of encouraging a better understanding of forestry development on the part of the wood-using industries and the Commission and to furnish an advisory medium for the Commission for a coordinated forestry program, has served in a most effective manner since its inception in 1948.

Membership on the Committee consists of four representatives of the Forest Industries Information Committee, two representatives of the Timber Producers Association, one representative of the Wisconsin County Boards Association, one representative of the Northern Hemlock and Hardwoods Manufacturers Association, and one representative of farm woodland owners.

The forestry inventory program, one of the Committee's first recommendations, was successfully undertaken and work on the project continued throughout the biennium.

Meetings of the Committee are held at various times and locations throughout the year, with at least one meeting being scheduled jointly with the Commission.

Members of the organization during the biennium were: F. G. Kilp, Chairman, Ivan Branham, Vice-Chairman, Folke Becker, George Corrigan, Fred Grunwald, Allan Haukom, John D. Mylrea, and A. E. Swanke.

### **Great Lakes Commercial Fishery Advisory Committee**

The Great Lakes Fishery Advisory Committee, created in 1951 to advise and assist the Conservation Commission in matters relating to the commercial fishing industry and to serve as liaison among the commercial fishermen, sportsmen, and the Commission, has fulfilled its mission in a most satisfactory manner. Its present membership consists of two commercial fishermen and one sportsman from Lake Superior, two commercial fishermen from Green Bay, two commercial fishermen and one sportsman from Lake Michigan, and one wholesale fish dealer. The sportsmen representatives are appointed by the Conservation Congress.

Study is made by members of the Committee of needed, pending, and present legislation pertaining to the commercial fishing industry in Wisconsin. Investigations of a research nature, conducted during the interim of the meetings, aid in the establishment of regulations on a scientific basis. The Committee's efforts have resulted in promoting better public relations and a mutual understanding between the commercial fishermen and the public.

Cliff Wenniger of Algoma has served as the Committee's chairman during the biennium. Other members of the Committee include: Emory Jones, Vice Chairman, Cornucopia; Marcel Schwarz, Secretary, Sheboygan; Ever Bodin, Bayfield; Joseph Cayner, Port Washington; Joe DeWitt, Suamico; Hiram Hansen, Bayfield; Frank Korchak, Marinette; Alex Meunier, Sturgeon Bay; Ray McDonald, Kenosha.

## Game Management

The game management division is responsible for the maintenance, development, and safeguarding of the wildlife resources of the state. Since its reorganization was effected in 1949-50, when five management areas (now identical with law enforcement, fishery, and forestry area administrative plans) were created, further organizational adjustments have resulted in a more efficient handling of wildlife problems on a local basis, a closer contact with the public, and smoother interdivisional cooperation.

The game management division has a staff of 166 permanent personnel. Its numerous line and staff responsibilities include such functions as general game administration; preparation of hunting and trapping regulations; wildlife propagation and stocking; land lease and purchase; maintenance and development of public hunting grounds; administration of licensed game, deer, and fur farms, and shooting preserves; all game research; carrying on of miscellaneous game projects; and rendering various services in informing the public of game management services. Game management expenditures for these activities totaled more than two million dollars during the biennium.

### Game Regulations

The establishment of open and closed seasons on all game species and fur-bearing animals by the Wisconsin Conservation Commission makes necessary a considerable amount of field investigation and surveys in order that sound management methods may result. Annually, thorough investigation of the status of game is undertaken by game managers and research men to insure the adoption of the needed game seasons and regulations. In establishing seasons, fish and game hearings are held in each of the 71 counties to ascertain public opinion and obtain the recommendations of those concerned. Ever-increasing hunting pressure causes a constant revision in game management practices to meet changing wildlife conditions.

### Public Hunting and Fishing Grounds

Our public hunting grounds program, beginning in 1938 with one area of 1,280 acres, has expanded to more than 100 units totaling more than 400,000 acres annually during the last six years. Ever aware that it is the responsibility of game management to provide public hunting areas which will serve most people, and to apply sound wildlife management practices to such units, game managers seek the best of wildlife habitats including desirable wetland areas to save them from destruction. Trees and shrubs, and food patches, are planted for food and cover, watershed control practices are undertaken, and dikes and other water control structures are installed in water areas. Among other activities on lands, whether leased, purchased, or provided by grant, are the stocking of pheasants and other

game, winter feeding, and fire protection. Damage to private property incidental to public hunting is paid if it occurs on leased areas. School taxes are paid on land acquired for hunting purposes. Public hunting grounds controlled and operated by the game management division are as follows:

Year	Acreage	Number of Areas
1954-55.....	445,852	136
1955-56.....	425,022	149

During the biennium for the fiscal years ending June 30, 1955, and June 30, 1956, a total of 8,207 acres in 27 counties at a cost of \$152,806.50 was purchased. Other lands provided for public hunting are shown on the following map. These are forest crop lands which total more than 2½ million acres.

**PUBLIC HUNTING AND FISHING GROUNDS**  
As of June 30, 1956





PUBLIC HUNTING AND FISHING GROUNDS AS OF JUNE 30, 1956

County	Name	Acreage	Game Species Prominent
Adams	Big Spring	2,005	Pheasant, rabbits.
	Coloura	4,374	Ruffed grouse, deer, rabbits & ducks.
Ashland	Hoffman Lake	5,561	Deer, ruffed grouse, woodcock & snowshoe hare.
	White River	960	Deer, ruffed grouse, woodcock & snowshoe hare.
Barron	New Auburn	525	Pheasants, ruffed grouse, woodcock, ducks, rabbits.
Bayfield	Flag River	600	Trout fishing, deer, ruffed grouse, woodcock & showshoe hare.
Brown	Holland	1,008	Pheasants, Hungarian partridge, rabbits & ruffed grouse.
	Sensiba	450	Pheasants, ducks, ruffed grouse, rabbits, & squirrels.
	Suamico	815	Pheasants, ruffed grouse, rabbits & squirrels.
Buffalo	Tiffany	7,377	Waterfowl, deer, squirrels, ruffed grouse, fur-bearers & fishing.
Burnett	Crex Meadows	18,325	Waterfowl, ruffed grouse, sharp-tailed grouse & deer.
	Danbury	1,233	Sharp-tailed grouse, ruffed grouse, deer & snowshoe hare.
	Fish Lake	4,913	Waterfowl, sharp-tailed grouse, ruffed grouse & deer.
	Namekagon Barrons	5,687	Sharp-tailed grouse, ruffed grouse, deer & snowshoe hare.
	Kiezer Lake	1,329	Waterfowl, ruffed grouse, deer, rabbits, squirrels & fishing.
	Kohler-Peet	3,329	Deer, ruffed grouse, sharp-tailed grouse, snowshoe hare & fishing.
	Sand Creek	286	Deer, ruffed grouse & fishing.
Calumet	Brillion	7,118	Pheasants, Hungarian partridge, rabbits, ducks, raccoon & squirrels.
	New Holstein	1,345	Pheasants, Hungarian partridge, rabbits, raccoon & squirrels.
Chippewa	Hallie	880	Pheasants, rabbits & ruffed grouse.
	Jim Falls	1,443	Pheasants, rabbits & ruffed grouse.
Columbia	French's Creek	3,067	Pheasants, ducks, rabbits, ruffed grouse, quail, deer, fur-bearers, squirrels, woodcock & raccoon.
	Jennings Creek	410	Pheasants, rabbits, deer, woodcock, fishing, squirrels, ruffed grouse, fur-bearers, ducks, raccoon & quail.
	Mud Lake	505	Ducks, pheasants, squirrels, ruffed grouse, fur-bearers, rabbits, quail, woodcock & raccoon.
	Pine Island	2,288	Geese, ducks, quail, rabbits, squirrels, deer & pheasants.
	Portage	938	Pheasants, rabbits, squirrels, ruffed grouse, quail, ducks & raccoon.
Dane	Black Earth Creek	38	Fishing.
	Deansville	2,408	Pheasants, rabbits, squirrels, Hungarian partridge, ducks, raccoon, fur-bearers, & woodcock.
	Leuten	1,060	Pheasants, rabbits, squirrels, ducks, fur-bearers & raccoon.
	Mazomanie	9,660	Pheasants, quail, raccoon, rabbits, ducks, squirrels, deer, ruffed grouse, woodcock, fur-bearers & fish.
Dodge	Horicon Marsh	10,857	Waterfowl, pheasants, rabbits, raccoon & deer.
	Shaw Marsh	632	Pheasants, ducks, rabbits & squirrels.
	Theresa Marsh	4,347	Pheasants, Hungarian partridge, rabbits, squirrels & ducks.
	Westford	880	Pheasants, ducks, geese & rabbits.
	Wildcat Swamp	1,586	Pheasants, Hungarian partridge, raccoon, rabbits & squirrels.
Douglas	Douglas Co. Grouse Management	2,760	Sharp-tailed grouse, ruffed grouse, deer & snowshoe hare.
Dunn	Dunnville	3,600	Ducks, pheasant, rabbits & grouse.
	Elk Mound	4,159	Pheasants, rabbits, squirrels & ducks.
Eau Claire	Augusta	1,800	Ruffed grouse, deer, ducks & rabbits.
	Pleasant Valley	2,198	Pheasants, rabbits, ducks & woodcock.
Florence	Spread Eagle	3,288	Sharp-tailed grouse, ruffed grouse, & deer.



**PUBLIC HUNTING AND FISHING GROUNDS AS OF  
JUNE 30, 1956—Continued**

<i>County</i>	<i>Name</i>	<i>Acreage</i>	<i>Game Species Prominent</i>
Fond du Lac	Brandon	1,627	Pheasants, ducks, rabbits & squirrels.
	Eden	2,200	Pheasants, Hungarian partridge & squirrels.
	Eldorado	1,550	Pheasants & rabbits.
	Kettle Moraine State Forest	5,000	Rabbits, squirrels, pheasants & Hungarian partridge.
	Rush Lake R.O.W.	19	Ducks & fishing.
	St. Cloud	3,402	Pheasants, ducks, geese, rabbits, Hungarian partridge, ruffed grouse, woodcock & squirrels.
Forest Grant	Supple Marsh	321	Waterfowl.
	Little Rice	1,520	Waterfowl.
	Montfort	3,773	Pheasants, fish, rabbits, squirrels, raccoon, quail, Hungarian partridge, fur-bearers, ruffed grouse.
Green	Albany	1,760	Pheasants, fish, ducks, fur-bearers, squirrels, rabbits, raccoon, quail, Hungarian partridge & woodcock.
	Brodhead	3,135	Pheasants, fish, ducks, squirrels, raccoon, fur-bearers, rabbits, quail, Hungarian partridge & woodcock.
	Brooklyn	4,534	Pheasants, fish, rabbits, squirrels, quail, ducks, raccoon, Hungarian partridge & woodcock.
	Browntown	4,221	Pheasants, rabbits, squirrels, fur-bearers, ducks, fish, raccoon, quail, Hungarian partridge, woodcock, ruffed grouse & deer.
	New Glarus	3,273	Pheasants, rabbits, squirrels, fur-bearers, raccoon, quail, ducks, Hungarian partridge, fish, ruffed grouse & woodcock.
Green Lake	Silver Creek	2,621	Pheasants, rabbits, ducks & squirrels.
	Avoca	3,934	Pheasants, ducks, quail, ruffed grouse, woodcock, rabbits, raccoon, fur-bearers & deer.
Iron	Big Island	960	Waterfowl, deer, rabbits, ruffed grouse & snowshoe hare.
	Hay Creek—Hoffman Lake	9,057	Waterfowl, fur-bearers, deer, rabbits & ruffed grouse.
Jackson	Underwood	1,602	Deer & ruffed grouse.
Jefferson	Central Wisconsin Conservation Area (Black River Falls Unit)	60,118	Grouse, deer, rabbits & waterfowl.
	Jefferson Marsh	2,860	Pheasants, rabbits, ducks, squirrels, raccoon, Hungarian partridge, quail & deer.
	Princess Point	5,148	Pheasants, ducks, geese, rabbits, squirrels, Hungarian partridge, woodcock, raccoon & deer.
	Waterloo	7,114	Pheasants, rabbits, squirrels, ducks, Hungarian partridge & raccoon.
Juneau	Central Wisconsin Conservation Area (Meadow Valley Unit)	57,000	Grouse, deer, rabbits & waterfowl.
Kenosha	New Munster	1,996	Pheasants, rabbits, woodcock, fish, squirrels, Hungarian partridge, fur-bearers & raccoon.
	Paris	3,261	Pheasants, fur-bearers, ducks, woodcock, Hungarian partridge, raccoon, squirrels & rabbits.
	Salem	1,079	Pheasants, ducks, fish, fur-bearers, rabbits, squirrels, Hungarian partridge, raccoon & woodcock.
	Bangor	6,820	Pheasants, quail, rabbits & squirrels.
La Crosse	Van Loon	4,642	Pheasants, ducks, quail, squirrels, deer & raccoon.
Lafayette	Argyle	2,921	Fish, pheasants, squirrels, ducks, rabbits, fur-bearers, raccoon, quail, Hungarian partridge, ruffed grouse & woodcock.
	Spafford Creek	4,170	Pheasants, fish, rabbits, squirrels, ducks, fur-bearers, raccoon, quail, Hungarian partridge, ruffed grouse, woodcock & deer.
	Yellowstone	1,890	Squirrels, rabbits, fish, pheasants, raccoon, fur-bearers, quail, ducks, ruffed grouse, deer & woodcock.

**PUBLIC HUNTING AND FISHING GROUNDS AS OF  
JUNE 30, 1956—Continued**

County	Name	Acreage	Game Species Prominent
Langlade	Ackley Grouse Management	1,680	Sharp-tailed grouse, ruffed grouse, deer & woodcock.
	Woods Flowage	82	Waterfowl, ruffed grouse & deer.
Lincoln	New Wood	1,600	Deer, rabbits, ruffed grouse, woodcock & waterfowl.
Manitowoc	Collins	9,334	Pheasants, Hungarian partridge, rabbits, raccoon, squirrels, waterfowl & deer.
	Two Rivers	470	Pheasants, waterfowl, Hungarian partridge & rabbits.
Marathon	McMillan Marsh	5,075	Ruffed grouse, sharp-tailed grouse, pheasants, deer, rabbits & waterfowl.
	Nine-Mile Swamp	4,240	Ruffed grouse, sharp-tailed grouse, rabbits, woodcock, squirrels & deer.
Marinette	Amberg	1,130	Deer, rabbits & ruffed grouse.
	Athelstane	1,520	Sharp-tailed grouse, ruffed grouse & deer.
	Coleman Lake	4,472	Sharp-tailed grouse, ruffed grouse & deer.
	Miscauno	638	Rabbits, deer, squirrels & ruffed grouse.
	Peshigo Harbor	1,407	Waterfowl, fur-bearers, pheasants, ruffed grouse, rabbits, squirrels & deer.
	Town Corner Lake	801	Waterfowl, deer, rabbits, squirrels & ruffed grouse.
Marquette	Germania	975	Rabbits, pheasants & waterfowl.
	Lawrence Creek	825	Fishing, pheasant, ducks, deer & ruffed grouse.
	Mecan	740	Fishing, pheasant, deer, rabbits & ruffed grouse.
Oconto	Peshigo Brook	2,080	Ruffed grouse, deer & sharp-tailed grouse.
Oneida	Thunder Lake	1,687	Waterfowl, sharp-tailed grouse, deer & ruffed grouse.
Outagamie	Deer Creek	441	Pheasants, rabbits, ruffed grouse & deer.
	Mack	1,358	Pheasants, rabbits, ruffed grouse & deer.
	Maine	720	Pheasants, rabbits, ruffed grouse & deer.
	Outagamie County	412	Ducks, pheasants, rabbits, ruffed grouse & deer.
Ozaukee	Cedarburg	1,380	Pheasants, Hungarian partridge & rabbits.
	Cedarburg Bog	789	Waterfowl.
	Ulao	1,464	Pheasants, Hungarian partridge, rabbits & waterfowl.
Polk	McKenzie Creek	2,370	Trout, deer, woodcock, waterfowl, snowshoe hare & ruffed grouse.
	Rice Beds Creek	1,420	Fishing, deer, ruffed grouse, woodcock, waterfowl & snowshoe hare.
Price	Price Creek	1,466	Trout, deer, ruffed grouse, woodcock, & snowshoe hare.
Richland	Richland	2,885	Pheasants, quail, rabbits & squirrels.
Rock	East Hanover	2,048	Pheasants, rabbits, squirrels, Hungarian partridge, ducks, fur-bearers & raccoon.
	Evansville	4,485	Pheasants, rabbits, Hungarian partridge, fur-bearers, squirrels, raccoon & woodcock.
	Footville	4,039	Pheasants, rabbits, Hungarian partridge, squirrels, fur-bearers & raccoon.
	Lima	2,177	Pheasants, rabbits, squirrels, Hungarian partridge & raccoon.
	Storr's Lake	455	Pheasants, ducks, rabbits, squirrels, fish, fur-bearers, raccoon & Hungarian partridge.
Rusk	Devil's Creek	80	Deer, rabbits, ruffed grouse & woodcock.
	Silvernail	1,038	Deer, ruffed grouse & snowshoe hare.
	Washington Creek	240	Waterfowl, deer, rabbits, woodcock & ruffed grouse.
St. Croix	St. Croix Island	484	Waterfowl.
Sauk	Redsburg	1,782	Pheasants, squirrels, quail, rabbits, ruffed grouse & raccoon.
	Witwen	2,382	Pheasants, quail, rabbits, squirrels, ruffed grouse, ducks, woodcock, fur-bearers & raccoon.
Sawyer	Chief River	1,183	Deer, ruffed grouse & snowshoe hare.
	Flat Creek	418	Deer, ruffed grouse, woodcock & snowshoe hare.
	Kissick Swamp	941	Deer, ruffed grouse, snowshoe hare & woodcock.
	Totogatic	3,683	Waterfowl, fishing, deer, grouse & woodcock.

**PUBLIC HUNTING AND FISHING GROUNDS AS OF  
JUNE 30, 1956—Continued**

<i>County</i>	<i>Name</i>	<i>Acreage</i>	<i>Game Species Prominent</i>
	Weirgor Springs.....	1,820	Trout, deer, ruffed grouse, sharp-tailed grouse & rabbits.
Shawano.....	Navarino.....	3,333	Pheasants, ruffed grouse, deer, squirrels, rabbits & woodcock.
Sheboygan.....	Adell.....	1,700	Pheasants, Hungarian partridge, rabbits & squirrels.
	Nichols Creek.....	960	Pheasants, rabbits & squirrels.
Taylor.....	Taylor County.....	2,520	Prairie grouse, cottontail rabbits, squirrels & deer.
Trempealeau.....	Trempealeau Lakes.....	166	Deer, ducks, rabbits, fish & fur-bearers.
Vilas.....	Bear Springs Flowage.....	40	Waterfowl.
	Dorothy Dunn.....	2,440	Ruffed grouse, deer, sharp-tailed grouse & waterfowl.
	Mann Creek.....	200	Waterfowl.
	Powell Marsh.....	3,123	Waterfowl, deer, ruffed grouse, sharp-tailed grouse & fur-bearers.
	Stevenson Creek.....	200	Waterfowl.
	Whitney Flowage.....	320	Waterfowl.
Walworth.....	Clover Valley.....	1,481	Pheasants, rabbits, ducks, Hungarian partridge, squirrels & raccoon.
	Richmond.....	1,920	Rabbits, pheasants, squirrels, fur-bearers, raccoon & ducks.
	Troy.....	7,500	Rabbits, pheasants, Hungarian partridge, squirrels, raccoon & ducks.
Washburn.....	Beaver Brook.....	789	Trout, ruffed grouse, woodcock, waterfowl & deer.
Washington.....	Allenton.....	1,895	Pheasants, Hungarian partridge, rabbits & ducks.
	Hartford.....	1,423	Pheasants, Hungarian partridge & rabbits.
	Kewaskum.....	950	Pheasants, rabbits & ruffed grouse.
Waukesha.....	Eagle.....	1,725	Pheasants, rabbits, squirrels, ducks, raccoon, deer, fish, fur-bearers, Hungarian partridge, quail, woodcock & field trials.
	Vernon Marsh.....	2,172	Pheasants, ducks, fish, fur-bearers, Hungarian partridge, rabbits, squirrels, woodcock, raccoon.
Waupaca.....	Clintonville.....	1,919	Ruffed grouse, rabbits, pheasants, & waterfowl.
	Marion.....	2,670	Ruffed grouse, rabbits, pheasants & squirrels.
	Mukwa.....	1,334	Pheasants, ruffed grouse, waterfowl, rabbits & woodcock.
Waushara.....	Greenwood Refuge.....	1,929	Geese.
	Pine River.....	1,480	Trout, pheasants, rabbits & deer.
	White River.....	210	Trout, pheasants, rabbits & squirrels.
Winnebago.....	Bay Boom.....	2,286	Pheasants, waterfowl & squirrels.
	Deltax Marsh.....	854	Pheasants & rabbits.
	Deppe Marsh.....	100	Pheasants & rabbits.
	Rush Lake.....	1,063	Pheasants, squirrels, waterfowl & rabbits.
	Rush Lake R.O.W.....	2	Ducks.
Wood.....	Wood County.....	18,632	Ducks, grouse, deer, rabbits & squirrels.

**Deer Yard Acquisition and Winter Feeding**

Since 1944, Wisconsin has acquired by purchase 27,953 acres of winter deer yards at a cost of \$137,961.00. During the biennium, a total of 145 acres of land was purchased at a cost of \$1,100.00 in Bayfield, Iron, and Marinette Counties. At the present time development work to improve habitat is carried on in the 21 yards located in the northern problem deer ranges. Feeding in yards when favorable browse is insufficient, and starvation, is an annual problem. A total of 204 tons of hay and deer feed concentrate was made available in deer yarding areas during the 1954-55 winter feeding seasons. In 1955-56, 273.8 tons of alfalfa hay and 94.2 tons of corn were distributed. Feed costs alone, not including the cost of delivery/man-hours involved in storage and distribution, totaled \$16,995.00

**TOTAL DEER YARDS ACQUIRED**

<i>Year</i>	<i>New Areas Added</i>	<i>County</i>	<i>Name</i>	<i>Total Acreage</i>	<i>Total Acquired Acreage</i>
1944	2	Iron	Hay Creek Boot Lake	1,320 680	2,000
1945	6	Bayfield Iron  Lincoln Marinette Price Sawyer	Flag River Hay Creek Big Island Boot Lake New Wood Town Corner Lake Price Creek Chief River	160 480 960 320 960 319.59 1,392 760	5,351.59
1946	3	Ashland Iron Marinette  Sawyer	Hoffman Lake Hay Creek Town Corner Lake Miscauno Chief River Kissick Swamp	4,960.40 1,329.45 321.25 357.9 40 896.23	7,905.23
1947	3	Ashland  Bayfield Burnett Iron Rusk Sawyer	Hoffman Lake White River Flag River Kohler-Peet Hay Creek Silvernail Chief River	480 720 240 2,553.35 160 557.65 80	4,791.00
1948	2	Bayfield Burnett Iron Marinette  Sawyer	Flag River Kohler-Peet Hay Creek Town Corner Lake Amberg Flat Creek	80 320 40 80 254.6 171.34	945.94
1949	1	Ashland Bayfield Iron Marinette Rusk Sawyer Washburn	White River Flag River Underwood Amberg Silvernail Flat Creek Flat Creek	240 80 1,601.84 448.76 480 46.91 160.2	3,057.71
1950	None	Marinette Burnett Sawyer	Amberg Kohler-Peet Flat Creek	40 320 40	400
1951	1	Ashland Iron Marinette  Burnett Sawyer  Polk	Hoffman Lake Hay Creek Miscauno Amberg Kohler-Peet Kissick Swamp Chief River McKenzie Creek	160 40 280 39.11 55.68 44.94 85 160.72	865.45
1952	3	Burnett  Marinette Polk Price Sawyer	Sand Creek Kohler-Peet Amberg-(2) Rice Beds Creek Price Creek Chief River Weirgor Springs	285.55 40 120 720 80 218 40	1,503.55
1953	None	Burnett Marinette	Kohler-Peet Town Corner	40 80	120
1954		Iron Lincoln Marinette	Hay Creek New Wood Amberg	80 640 186.95	906.95
1955		Bayfield Iron Marinette	Flag Yard Hay Creek Amberg	39.7 45.42 20	105.12
<b>Totals</b>	<b>21</b>	<b>11</b>	<b>21</b>	<b>27,952.54</b>	<b>27,952.54</b>

during the biennium. A browse improvement program in addition to the hay and grain feeding program is also in operation. Browse improvement is the cutting or bulldozing of trees and saplings of little commercial value so that deer may browse the tops and the stumps can start new shoots within reach of deer.

### **Wildlife and Game Refuges**

More than 100 wildlife refuges are in effect annually, and are established for the protection and reproduction of the game species concerned, or to protect those that are in danger of being overhunted, or that are at such a low level as to border upon extinction. In 1956, 136 areas amounting to 50,415 acres were posted as wildlife refuges. During the biennium, additional closed areas were established primarily for the protection of deer during the November deer season.

### **Winter Game Bird Feeding**

A winter feeding program for game birds in Wisconsin has been conducted annually since 1929. Feeding activities have been concentrated mainly on pheasants, Hungarian partridge, and quail, although some sharp-tailed grouse, prairie chicken, and turkey in central Wisconsin also are fed.

Under present conditions of intensified land use and considerable dairy farming, game bird food and cover have been reduced greatly, particularly in the agricultural areas of southern and southeastern Wisconsin. During the winter months, a sufficient supply of food is needed constantly to curtail starvation and to carry our adult birds into the spring in good breeding condition. In anticipation of an emergency bird feeding problem, funds are allotted to district game managers who furnish feed to conservation wardens in their respective counties. It has been the responsibility of game and law enforcement personnel to see that feeding needs and emergency situations are met promptly in the two feeding programs in operation; namely, the general county program, and the feeding in progress on public hunting grounds. Individuals, particularly farmers, and many participating sportsmen's clubs and civic groups, are assisted in winter feeding plans as emergency conditions develop.

During the 1954-55 and 1955-56 winters, 260 tons, more than one-half million pounds of corn and other grains, were distributed at several hundred feeding stations in 57 counties. More than 100 food patches were left standing in the field, and small plots of food species planted especially for wildlife were utilized.

### **Game Food and Cover**

The planting of trees and shrubs to increase wildlife food and cover was given particular emphasis during the biennium. Planting occurred largely on state-owned and leased land. Added importance was given to extension services performed by fieldmen which included technical advice given to a large number of cooperative projects with schools, conservation clubs, farmers, and other interested individuals, as well as joint work programs with

the U. S. Soil Conservation Service and county agricultural agencies. Planting records in 1955 totaled 907,378 conifers, hardwood trees, highbrush cranberry, nine bark, coralberry, mixed crab, and rosa multiflora. Planting operations during the 1956 spring period totaled 1,476,405 trees and shrubs. The game management division has been active in planting more than six million trees and shrubs during the last five years.

#### Licensed Farms and Shooting Preserves

Many private citizens of Wisconsin are engaged actively in the production of wildlife due to wise incentive legislation enacted by the State Legislature. Anyone who will meet certain standards may, under license, propagate and sell wild game, fur, and fish, and thus create new wealth and opportunities in wildlife land use.

As of June 30, 1956, there were 585 licensed game farms, the majority rearing pheasants; 18 game farms operating for the fee-shooting of pheasants; 15 game farms raising black bear; 80 deer farms ranging in size from one-half acre to 9,330 acres; 644 fur farms, of which 168 were licensed for raccoon, otter, and skunk; and 388 muskrat farms, some raising mink, with a total of 50,640 acres. Muskrat farms are found throughout Wisconsin, but many are concentrated on large waterways, such as the Wolf and Rock Rivers, and the upper Mississippi River where the largest fur farm of 3,400 acres is located. The 69 licensed shooting preserves covering 39,505 acres of land are located in southeastern Wisconsin, with the largest number in Walworth, Waukesha, and Jefferson Counties.

#### NEW LICENSES ISSUED FROM JULY 1, 1954, TO JUNE 30, 1956

	1954	1955
Game Farms .....	141	150
Fur Farms .....	56	115
Deer Farms .....	12	10
Shooting Preserves .....	8	3

In addition to the above special licenses, the game division issues annually approximately 45 bird banding permits, and 30 to 35 scientific collection permits.

#### Recording Game Kill

Records of Wisconsin game harvests showing the species and quantity of game animals, upland birds, and waterfowl taken during the open seasons, are prepared for use for department personnel in management work, federal agencies, press services, and individuals concerned. The statistical reports of the game kill indicate the yield trends during the years, and serve as guides for future planning. The game division also assists the law enforcement division in registering all of the deer taken legally by hunters. A total of 61,632 deer were registered during the 1954 and 1955 deer hunting seasons.

During the past two years, more than nine million game animals and birds, exclusive of bountied predators, were taken in Wisconsin by hunters and trappers.



### Bountied Animals

Our present statutes provide for bounties on wolves and coyotes, wildcat and lynx, and fox. The bounty payment on each adult wolf and coyote is \$20.00, for cubs of these species \$10.00; for wildcat and lynx \$5.00; and for adult foxes \$2.50, and \$1.00 for kits. State bounties have been paid since the civil war. One-half of the expense of fox bounties comes from the conservation fund and the other one-half from the state's general fund. More animals were bountied in 1954-55 than ever before.

The total number of animals bountied under the law for each fiscal year of the biennium and expenditures were as follows:

	<i>Animal</i>	<i>Number Taken</i>	<i>Paid Claims</i>
1954-55-----	Coyotes and wolves-----	2,579	\$ 50,780.00
	Wildcat and lynx-----	524	2,620.00
	Red fox-----	33,535	78,349.00
	Gray fox-----	5,062	12,466.00
	Total-----	41,700	\$144,215.00
1955-56-----	Coyotes and wolves-----	2,131	\$ 41,880.00
	Wildcat and lynx-----	377	1,885.00
	Red fox-----	29,285	66,929.00
	Gray fox-----	4,431	10,915.50
	Total-----	36,224	\$121,609.50

### Deer and Bear Damage Payments

In 1949, \$40,000.00 was appropriated by the Legislature annually to defray the costs of deer and bear damage claims. The Wisconsin statutes provided that all claims filed with the Conservation Commission and deemed valid shall be paid on a pro rata basis at the end of each fiscal year. In 1955, the Legislature changed the deer damage law by restricting the payments of damage to growing agricultural crops, orchard trees, nursery stock, apiaries, farm animals, and poultry. During the biennium, 329 deer damage and 111 bear damage claims were paid. Deer damaged 47 varieties of crops. Items for which bear damage was paid were livestock (mostly sheep), apiaries, corn, and orchards. The following table shows the cost of deer and bear damage claims:

<i>Fiscal Year</i>	<i>Deer</i>	<i>Bear</i>	<i>Total</i>
1954-55-----	\$35,138.00	\$ 4,862.00	\$40,000.00
1955-56-----	17,219.60	2,344.88	19,564.48
Total-----	\$52,357.60	\$ 7,206.88	\$59,564.48

### State Experimental Game and Fur Farm

The State Experimental Game and Fur Farm, long recognized in other states, is located at Poynette, Wisconsin. This area of more than 500 acres attracts thousands of visitors annually, as the animal and bird exhibits



form an integral part of the public relations and educational program of the farm. Aside from the maintenance and operation of the various bird and fur farm sections, personnel also offer assistance to breeders concerning housing, feeding, and breeding. They also aid conservation clubs and individuals in pheasant propagation methods under the cooperative rearing and stocking programs conducted by the state. The major activities of the farm are as follows:

### PRODUCTION AND DISTRIBUTION

	1954-1955	1955-1956	Totals
<i>Eggs Produced</i>			
Game Birds.....	441,637	450,644	892,281
Hungarian Partridge.....	81	161	242
Totals.....	441,718	450,805	892,523
<i>Eggs Set</i>			
Game Birds.....	386,603	394,715	781,318
Hungarian Partridge.....	81	161	242
Totals.....	386,684	394,876	781,560
<i>Eggs Shipped to Cooperators</i>			
Game Birds.....	34,295	41,561	75,856
<i>Chicks Hatched</i>			
Game Birds.....	290,724	296,793	587,517
Hungarian Partridge.....	54	113	167
Totals.....	290,778	296,906	587,684
<i>Chick Distribution</i>			
Chicks to Cooperators.....	205,250	207,825	413,075
Chicks in Farm Brooders.....	84,204	86,668	170,872
Chicks to Research.....	320	800	1,120
Totals.....	289,774	295,293	585,067

### Stocking

<i>Pheasants Liberated From</i>			
Egg Program.....	10,340	12,621	22,961
Day-old Chick Program.....	154,904	176,220	331,124
Farm: 16-20 Weeks Old.....	18,345	42,509	60,854
Mature Pheasants.....	44,547	35,792	80,339
Totals.....	228,136	267,142	495,278

The pheasant program has continued with good results, and the day-old chick program has been increasing during the last few years.

### Animal Stocking

Due to there being a large number of raccoon in the wild, the release of raccoon has been drastically reduced during the present biennium. Rabbits and squirrels are trapped at the farm and at other areas having orchard damage, and released in various parts of the state.

	1954-1955	1955-1956	Total
Raccoon.....	37	197	234
Rabbits.....	186	203	389
Squirrels.....		28	28
Totals.....	223	428	651

### Confiscation and Clearing House Section

The following animals were received, housed and fed until they were properly disposed of:

	1954-1955	1955-1956	Total
Bear Cub.....	3	6	9
Porcupine.....	2	-----	2
Badger.....	3	-----	3
Red Fox.....	4	-----	4
Raccoon.....	36	8	44
Fawn.....	12	12	24
Otter.....	1	-----	1
Totals.....	61	26	78

### FEDERAL AID GAME RESTORATION PROJECTS

In recognition of the urgent need for wildlife habitat improvement and restoration, the game management division of the Conservation Department continued its operation of game restoration projects with funds received from the federal government under the Pittman-Robertson phase of the Federal Aid in Fish and Wildlife Restoration Act. A functional summary of the cooperative federal aid projects and total costs for the biennial period ending June 30, 1956 are as follows:

<i>Type of Project</i>	<i>Total Costs</i>	
	1954-55	1955-56
Development.....	\$193,187.00	\$165,562.00
Maintenance.....	50,124.00	41,243.00
Research.....	154,649.00	138,336.00
Acquisition.....	108,177.00	94,008.00
Coordination.....	40,020.00	33,795.00
Total.....	\$546,157.00	\$472,944.00

Total costs, as summarized above, were borne initially by the game management division after which reimbursement was made from federal funds for the federal pro-rata share which could not exceed 75% of the project costs. Thus, Wisconsin was required to contribute 25% or more of the project costs from its own funds.

### DEVELOPMENT PROJECTS

Development projects are concerned chiefly with restoration and improvement of land and water areas to provide suitable food, cover and water for wildlife. The activities are varied and depend upon the problems on hand. For the biennial period ending June 30, 1956, the following projects were in operation.

Name and Number of Project	Total Costs	
	1954-55	1955-56
Regional (Boscobel Nursery)..... W-19-D	\$ 47,721.00	\$ 64,182.00
Regional (State-wide Dev.)..... W-19-D	41,054.00	30,937.00
CWCA Meadow Valley..... W-28-D	7,718.00	9,177.00
CWCA Black River Falls..... W-29-D	4,505.00	8,670.00
Totogatic..... W-39-D	3,674.00	2,274.00
Forest Habitat—Area I..... W-42-D	23,640.00	14,636.00
Sharptail Grouse—Area I..... W-42-D		622.00
Forest Habitat—Area II..... W-43-D	36,600.00	16,789.00
Sharptail Grouse—Area II..... W-43-D		1,604.00
Haymeadow Creek Dam..... W-43-D		265.00
Yellowstone..... W-45-D	11,407.00	5,445.00
Browntown..... W-50-D	626.00	911.00
Wood County..... W-52-D	272.00	540.00
Ackley Grouse..... W-58-D	2,526.00	540.00
Prairie Chicken..... W-60-D	4,790.00	5,798.00
Rock Prairie..... W-64-D	1,885.00	
Mazomanie..... W-65-D	5,819.00	2,160.00
Little Rice..... W-67-D	950.00	
French Creek..... W-81-D		312.00
Kiezer Lake..... W-83-D		700.00
Total.....	\$193,187.00	\$165,562.00

Emphasis was again placed on the development of game habitat development. As usual, these developments were varied and included such activities as tree and shrub plantings for food and cover, construction of dams, dikes, roads, fences and many other features. The Boscobel Nursery program which began in the summer of 1951, produced trees and game shrubs to supplement the cover planting program on all federal aid projects.

### MAINTENANCE PROJECTS

Maintenance of improvements on completed projects represents an increasing function as more areas are acquired and developed under the wildlife restoration program. The maintenance projects for the 1954-55 and 1955-56 fiscal years with comparative costs are illustrated as follows:

Name and Number of Project	Total Costs	
	1954-55	1955-56
Horicon Marsh..... W-26-M	\$ 21,970.00	\$ 24,932.00
CWCA Meadow Valley..... W-54-M	4,674.00	
CWCA Black River Falls..... W-55-M	5,680.00	
Crex Meadows..... W-62-M	17,458.00	16,311.00
Wood County..... W-70-M	342.00	
Total.....	\$ 50,124.00	\$ 41,243.00

Typical maintenance activities for the above projects include regulating water controls, keeping control structures in repair and operation, controlled burning, leasing, repairing roads, buildings, equipment and other administrative facilities.

### LAND ACQUISITION PROJECTS

To obtain control over numerous, well distributed areas of land for the conservation of wildlife and in the public interest, the state engaged in the following acquisition programs during the 1954-55 and 1955-56 fiscal years.

Project Name and Number	Total Costs	
	1954-55	1955-56
Weirgor..... FW-2-L	\$ 104.00	\$
Willow Creek..... FW-3-L	2,710.00	2,288.00
Woods Flowage..... FW-4-L	1,349.00	27.00
Nichols Creek..... FW-5-L	9.00	4,735.00
Dell Creek..... FW-6-L		800.00
Mud Lake..... W-20-L	7,419.00	
Crex Meadows..... W-30-L	6,081.00	1,566.00
Fish Lake..... W-33-L	1,113.00	1,197.00
Browntown..... W-34-L	3,900.00	
New Munster..... W-35-L	15,336.00	
Princess Point..... W-37-L	6,155.00	317.00
Vernon Marsh..... W-38-L	24,788.00	
Rice Beds Creek..... W-41-L	3,515.00	
Eldorado Marsh..... W-46-L	15,397.00	685.00
Thunder Lake..... W-47-L	896.00	4,954.00
Tiffany..... W-48-L	2,220.00	5.00
Jackson Marsh..... W-49-L	601.00	
Little Rice..... W-51-L	37.00	
French Creek..... W-53-L	16.00	
Pine Island..... W-56-L	4,437.00	26,985.00
Peshtigo Brook..... W-59-L	290.00	231.00
Navarino Marsh..... W-61-L	352.00	1,500.00
CWCA Black River Falls..... W-63-L	3,328.00	8,860.00
Amberg Deer Yard..... W-66-L	237.00	172.00
Theresa Marsh..... W-71-L	7,885.00	15,052.00
Peshtigo Harbor..... W-72-L		1,260.00
Allenton Marsh..... W-76-L	2.00	14,709.00
Killsnake—Cedar Lake..... W-80-L		576.00
Germania Marsh..... W-82-L		7,729.00
Washington Creek..... W-86-L		360.00
Total.....	\$108,177.00	\$ 94,008.00

### COORDINATION PROJECT

The coordination project influences the smooth and effective operation of the entire wildlife restoration program because it provides personnel to plan, prepare and supervise projects and maintain fiscal records. Coordination costs for the 1954-55 fiscal year amounted to \$40,020.00 as compared to \$33,795.00 for the 1955-56 fiscal year.

### COSTS FOR RESEARCH PROJECTS

Project Name and Number	Total Costs	
	1954-55	1955-56
Deer*..... W- 4-R	\$ 9,309.00	\$
Waterfowl*..... W- 6-R	19,815.00	
Pheasant*..... W- 9-R	25,642.00	
Grouse*..... W-13-R	25,729.00	
Fur*..... W-15-R	17,067.00	
Pathology..... W-24-R	4,797.00	6,154.00
Game and Range Survey..... W-25-R	52,290.00	24,559.00
Wetland Game..... W-77-R		34,318.00
Farm Game..... W-78-R		25,815.00
Forest Game..... W-79-R		47,490.00
Total.....	\$154,649.00	\$138,336.00

\*In 1955-56, the deer, grouse and beaver portion of the fur project were regrouped as the forest game project. Similar regroupings were made with the pheasant, waterfowl, and muskrat portion of the fur project. The former two became the farm game project and wetland game projects respectively. The latter became a part of the forest game project.

## HORICON MARSH DEVELOPMENT PROJECT

This federal aid project is located in north central Dodge County and comprises 10,857 acres. It is directly under the supervision of the district game manager in charge of game management activities for Dodge and Fond du Lac Counties.

The maintenance of buildings, equipment, roads, fences, parking area, etc., demand constant attention. Development and improvement work of major importance occurring during the past biennium are listed below:

### Burnett Ditch Development

Re-dredging of the Burnett Ditch was completed March 7, 1955. A total of 10,550 feet was dredged at a cost of \$4,335.00. Work started in January 1953. Hunters and fishermen using the west side of the area now have good boat access to the marsh.

### Building and Structures

Buildings of no further use to the project were disposed of through sale. This included two (2) old farm houses, three (3) garages, and two (2) machine sheds.

Eight (8) silos and five (5) barn foundations were razed and the sites covered with dirt.

### Roads

A total of 2,409 feet of new road was built and 13,472 feet of old road improved. Three (3) new parking areas were constructed and three (3) old parking areas resurfaced with gravel. The road to the Horicon Marsh Wildlife Area Headquarters was black-topped.

### Water Level Control

Excessive fall rains in 1954 hindered the recovery of marsh vegetation in the large open water areas. As a result the water level was held one-half foot lower during the summer of 1955.

### Controlled Burning

Adverse weather conditions during the winter of 1954-55 allowed for the burning of only 91 acres. However, good burning conditions existed during the winter of 1955-56, and a total of 3,164 acres of marsh vegetation was burned. Waterfowl, particularly dabbling ducks, were attracted to these burned over areas in the spring of 1956. Use was greatest when several inches of water covered these burns. Bur-reed seed and snails were made available through removal of the dense growth of marsh vegetation and no doubt attracted the birds to feed in these areas.

### Tree and Shrub Planting

A total of 16,125 trees and shrubs were planted in the spring of 1955-56.

### Share-trapping

During the 1954-55 season, trappers took 16,682 muskrats, 24 mink, 14 raccoon, 10 opossum, 3 weasel, and 2 red fox. Low water levels in the summer and fall of 1955 plus disease were contributing factors to a lower harvest of 6,695 muskrats during the 1955-56 season. In addition 18 mink, 17 raccoon, 37 opossum, 2 weasel, 1 skunk, and 5 red fox were caught by trappers.

### Public Use

Hunting pressure was extremely heavy on opening day of the 1954 waterfowl season. An aerial count of cars revealed an estimated 5,000 hunters on the area. Extremely dry conditions on the marsh probably discouraged many hunters from hunting the area opening day of the 1955 season. Hunting pressure was about one-half that experienced in 1954.

## RESEARCH PROJECTS

During the biennium the five research projects on individual game species were combined into three "super-projects" including research jobs on both related game populations and habitat: wetland game and range (including waterfowl and fur), farm game and range (pheasants and other farm game), and forest game and range (deer, grouse, beaver, otter and bear). Pathology and game and range survey projects were continued as separate projects. The new organization allows for closer coordination of research activity on game animals in generally similar habitat type.

After field study is completed on any phase of a project, the results must be made known to other biologists and the public, as well as to the administration. Findings of the research projects are published regularly as quarterly progress reports, and many additional reports are submitted for the use of the game management administration. Completed studies or phases are written up as technical wildlife bulletins. During the biennium, four numbers in this series of bulletins have been published on an evaluation of pheasant cock stocking on public hunting grounds, level ditching for muskrats, studies on the effects of stress in the survival of hen pheasants, and a 14-year study of white-tailed deer populations. Three others are near completion on prairie chicken management, artificial mallard propagation, and beaver reproduction.

Project personnel have worked continuously with study committees of the conservation congress, have given talks to numerous sportsmen's clubs and the organizations, and have worked with other department personnel to acquaint them with new developments and current practices in game management. The scope and important findings of each project are listed in the following sections:

### Farm Game and Range Research Project

Measures were continued to provide information on the fluctuation in the pheasant population. Population changes are important to determine for public relations purposes, to calculate the effect of management practices, and to measure the ups and downs of populations in relation to environ-



mental factors. Spring crowing counts corrected by winter sex ratios were continued in the pheasant counties by district game managers under the administration of the game and range survey project and by personnel of this project.

Brood observations were continued and revealed an average size of 7.09 in 1954. There was a relatively poor hatch in this year, resulting in a drop in the fall population from that of 1953. In 1955, the average brood size was 7.60, and the hatch was highly successful, resulting in an increase in the 1955 fall population.

A questionnaire was sent to a sample of pheasant hunters who hunted in the late, 30-day season in six southeast counties in 1954. The average hunter made slightly over four trips, and bagged about four birds during the season. About 34 per cent of the total season kill and 28 per cent of the total season hunting pressure were sustained on opening weekend. By the end of the first 14 days of hunting, 72 per cent of the kill and 64 per cent of the hunting pressure had occurred. The 30-day season increased the pheasant kill by somewhat less than 23 per cent over that of a 16-day season.

The majority of the pheasant stocking effort in Wisconsin today is centered around cooperation from the more than 200 sportsmen's clubs scattered throughout the state. These clubs release about 170,000 birds annually. Fifty thousand pheasants reared by sportsmen's clubs were leg-branded in the summer of 1954 to evaluate the immediate contribution of cocks stocked by the day-old pheasant chick program to the total harvest in Wisconsin. Thirteen counties were selected for study, representing some of Wisconsin's good, fair and poor pheasant range. During the fall hunting season, hunters were asked to turn in wings and legs of all pheasants shot. Over 9,000 returns were received. Analysis showed that in the marginal counties, between 29 and 64 per cent of the birds killed were marked. In two "fair" pheasant counties, 13 and 32 per cent of the birds killed were marked, and in the better pheasant counties, between 2 and 8 per cent of the kill was marked (i.e., stocked birds). The return on county-wide releases approaches that found for birds released on public hunting grounds (between 40 and 75 per cent).

A study is now underway which will evaluate the contribution made by the club-stocked hen pheasant. An experimental manipulation of hen stocking intensities was undertaken in four blocks of counties. In one county in each of the blocks, no hens will be stocked for three years; in a second county, the number of hens stocked will be double that stocked in 1954; in the third county the number of hens stocked will remain constant at the 1954 level. Possible changes in the populations will be measured by the annual kill estimate, hunter-returns of branded pheasant legs, and post card questionnaires.

Physiology studies are being continued to explore the mechanisms underlying reproductive behavior and the ability of pheasants to survive the stresses of the environment. In one study, in cooperation with the University of Wisconsin Zoology Department, one group of hen pheasants was fed a bare subsistence diet while another group was fed an unlimited diet of food. Despite the low caloric value of the diet of the first group (limited



intake), the birds showed weight changes throughout the seasons generally similar to those of the birds fed all they could eat.

The breeding season of 1955 marked the fifth year of progress in a program to determine whether a type of pheasant that will have superior survival and reproduction in Wisconsin habitat and climatic conditions can be produced. The pheasant towards which the most selection has been directed will be known as the "Wisconsin cross" pheasant. Several other types of pheasant crosses and matings have also been made, with particular emphasis being placed on the development of an improved strain of versicolor pheasants from breeders that were imported from Japan.

#### Wetland Game and Range Research Project

Research has been continued on waterfowl to provide information for a clearer understanding and improved management of Wisconsin, Flyway and continental waterfowl populations. Census work is carried out throughout



In cooperation with the U. S. Fish and Wildlife Service, Canada geese are banded with colored neck bands to aid in following their movements through the flyway.

the year to follow the trends in the waterfowl population. This information forms part of the basis for management programs and also is required annually for setting hunting regulations.

Counts are made of breeding pairs and of broods along designated routes every spring. In 1954 waterfowl production in Wisconsin decreased slightly from the high level of 1953, while in 1955, the average brood size was the highest on record and production was above average.

Each year from September through November, periodic aerial surveys are made over water areas to determine the migration patterns of the birds, the aquatic sites occupied, and the length of time the areas are used, the estimated number of birds present and the condition of the wetland habitat. Over the past two years the waterfowl flight has followed the average pattern—the birds generally build up in numbers throughout October, decline after early November and have largely departed from the state by early December.

Hunters are contacted annually in the field and through special diaries and questionnaires. This information serves as a guide for making recommendations for new laws and for changing the old. Hunting checks in 1954 showed that hunter success was 0.7 duck bagged per hunter trip, while in 1955 an average of 1.0 duck per hunter was bagged.

The managed goose hunt was continued on the federal refuge of Horicon Marsh. In 1954, almost 10,000 hunters used the blinds, and made, on the average, about two hunting trips a piece, and bagged 1,115 geese and 4,012 ducks. An average peak population of 37,842 Canada geese used Horicon Marsh, and the total estimated harvest (birds bagged and those knocked down and lost) was between 2,313 and 2,383, an estimated 6 per cent of average peak population. In 1955, about 9,000 hunters bagged 2,302 geese and 3,471 ducks. The total harvest was between 5,989 and 6,521 geese, definitely not excessive.

A sample of waterfowl hunters was asked to complete a waterfowl hunting diary during the past two hunting seasons. Considerable information was obtained on several specific questions relating to waterfowl hunting.

In cooperation with the U. S. Fish and Wildlife Service and all of the states in the United States, a winter waterfowl inventory is conducted each January. The 1955 survey disclosed that a minimum of 26,911 ducks, 5,564 Canada geese and 4,592 coot were present in Wisconsin. The main duck species on the inventory were black duck, goldeneye, and canvasback. A total of 35,388 ducks, 5,527 Canada geese and 65 coots was present in the winter of 1956. Compared to the previous winter, fewer canvasbacks were present, while increased numbers of mallards, scaups and buffleheads remained into January. The Canada goose population remained unchanged.

A special study was conducted during the biennium in cooperation with northeast area personnel on the experimental use of various herbicides to control and manipulate aquatic and bog type vegetation. Results showed that applications of herbicides only partially killed leatherleaf in bogs.

Close cooperation was given the Mississippi Flyway Council, an organization of the waterfowl states along the Flyway which discusses and makes recommendations on common problems of waterfowl management and regulation.

Intensive research on muskrat populations has been carried out during the biennium in order to continue the search for methods of increasing muskrat production, maintaining high populations in areas already in good production, and utilizing the crop through proper harvesting.

The harvest of muskrats on the state portion of Horicon Marsh dropped to 16,682 in the winter of 1954-55. Depression of the catch resulted in part from a shortage of trappers but was due more to a die-off in many of the trapping units as a result of over-population. The 1955-56 harvest of muskrats dropped to 6,696, the lowest total since 1945. Severe drouth conditions in late summer and fall caused the loss of many muskrats in shallow water areas. Deep ice formation caused the loss of more muskrats during the winter. A lightened trapping pressure was recommended for the 1956-57 trapping season.

Live-trapping and ear-tagging continued on the experimental ditches on Horicon Marsh. Average yearly harvest figures for the first six years are still high, being 9.7 muskrats per acre and 14.5 muskrats per \$100 invested.

The production of muskrats has remained good. Litter sizes averaged 7.5 and 7.9 in 1954 and 1955 respectively.



Experimental level ditches proved highly beneficial for muskrats. Such ditches also favor other furbearers, fish, and nesting waterfowl.

New floats and trapping platforms were designed and tested, in an attempt to improve the efficiency of trapping methods for muskrats. Over the past few years also, project personnel have collected muskrat pelts from animals of known age to use in a study of priming patterns and their use as age criteria. Approximately 772 pelts have been collected since 1950, and four basic patterns established. A study of these patterns has shown that dark and light patterns alternate, with hair growth probably taking place in waves—each successive wave adding to the density of the pelage and replacing some old hair until maximum density and prime are reached in March.

#### Forest Game and Range Research Project

Tallies are made of the number of bucks, does and fawns seen during the fall of each year. Preceding the 1954 hunting season, 21 per cent of the deer seen were antlered bucks, 38 per cent does and 41 per cent fawns. The number of does per buck was smaller and the number of fawns per doe was the same as in 1953. In 1955, 17 per cent were antlered bucks, 41 per cent does and 42 per cent fawns. The number of does per buck was larger and the number of fawns per doe was the same as in 1954.

Daily hunting success ratios for 9,072 hunters and hunting pressure on 20 transects checked by game division field crews indicated that the total 1954 forked-horn buck kill was larger than the 1953 kill. This was borne out by the total registration of 19,877 bucks, compared to 15,880 in 1953. Hunters reported seeing more deer tracks and sign than they did the previous hunting season. According to information from field checks, the total 1955 deer kill was larger than the 1954 kill (the number of deer registered likewise increased to 35,060 in 1955).

The winter of 1954-55 for the most part was an unusually light one throughout the state's major deer range. Severe weather then developed in the northern counties during mid-March, however, and persisted for several weeks; deer were hard pressed in many yards. Browsing during the winter exceeded current carrying capacity in 32 per cent of the northern yards and 3 per cent of the central yards. Deer losses due to starvation, illegal hunting and other causes were generally light. In the winter of 1955-56, however, browsing exceeded current carrying capacity in 42 per cent of the northern yards and 10 per cent of the central yards. The winter was the most severe since 1950-51 and starvation losses were noted in many northern yards.

Investigations of the damage done to domestic sheep by deer liver flukes are continuing under contractual agreement between the Conservation Department and the University of Wisconsin Department of Veterinary Science. Studies have been mainly on various aspects of fluke life history and ecology. Deer livers have been donated by hunters for the fluke study.

On three central Wisconsin areas which burned over in 1948 or 1949, plant quadrats were established and tallied in 1949 to follow changes in vegetation following fire. These quadrats were re-examined in September 1955. Fire on these areas stimulated much woody plant growth. Most of it was on species on the area which were there before it was burned, and



Game men examine the teeth of deer taken during the hunting season. Such checks have shown that most of the animals are less than five years old.

most of these plant species were still available as deer browse 6 years after the fires. Plants on the burned areas will continue to produce deer browse for several more years.

A study of the ecology of white cedar in Wisconsin deer yards was begun during the biennium. Preliminary efforts to determine where seedlings naturally occur indicate that white cedar seedlings which are successful in ultimately contributing to the lowland swamp canopy germinate and are supported in their early growth on a substrate comprised of partially decayed wood.

Vegetation in permanently established quadrats in deer enclosures was tallied in 1949, 1951, 1953 and examined in 1956 to measure changes following the cessation of deer browsing. Some recovery of browse plants has been recorded, particularly of mountain maple, but it has not been too significantly greater than the browse recovery that occurred in the remainder of the yard outside the pens following a herd reduction during the liberal hunting seasons of 1949-51.



Studies have begun on the Bad River Indian Reservation deer productivity, hunting pressure and hunting success, and on the deer range condition in terms of browse availability and browse utilization in relation to deer density.

Studies have been continued on ruffed grouse populations and their habitat throughout the year. The production of young grouse in 1954 declined sharply from the preceding six years. Hunting success results from a post card questionnaire indicated that ruffed grouse decreased about 50 per cent from 1953 to 1954. Returns on banded birds showed only a 5 per cent harvest in 1954 compared to a 32 per cent harvest by hunters in 1953. This decrease in 1954 was due to low hunting pressure because of the decline in birds. Thus, closed seasons are not needed to protect low populations, because hunting pressure shifts to other game species. In 1955, however, the production of young was the highest since 1948, reflecting favorable nesting weather. Results from the post card questionnaire indicated a 10 per cent increase in fall ruffed grouse populations.

A method for sexing and aging ruffed grouse trapped in the spring was devised by various wing and tail feather measurements. Thus, spring age ratios can be obtained for population research.

Information obtained from drumming cocks re-trapped in the spring shows that adult cocks have good survival, suggesting that ruffed grouse are longer lived than many other gallinaceous game birds. This is important information since it suggests that if adult females have as high a survival as males, ruffed grouse may survive several years of unfavorable climatic conditions and still be capable of a rapid comeback when conditions become favorable for reproduction.

Research has been continued on prairie chicken populations, following them throughout the year through booming ground observations, brood counts, flock observations and winter trapping and banding. Major emphasis during recent months has been placed on the completion of a management plan for prairie chickens. This plan consists of recommendations for the setting aside of grassland reserves as undisturbed nesting cover for prairie chickens in a pattern of scattered 40-acre parcels throughout the Buena Vista Marsh. A management program will have to be a cooperative arrangement between sportsmen, landowners, department and other interested parties.

An analysis of historical data on the occurrence of beaver in Wisconsin indicates that given good to excellent beaver habitat and closed seasons a seed stock of beaver can increase very rapidly.

The state-wide beaver population has been reduced by lenient seasons and disease from a peak over-balanced population in 1950 to an optimum population in 1955. The objective of management during these years was the reduction of the population. In the immediate future the population should be maintained at about the present level. It appears now from current censuses that the beaver population will increase and therefore should be watched very closely to prevent it from getting out of hand. There are so few beaver trappers now that too great an increase in the population could be of serious consequence.





Photo by Hugh Wilmar

**The prairie chicken was threatened with extinction. Now management plans call for a scattered pattern of grassland reserves to assure undisturbed nesting cover in a portion of central Wisconsin.**

Over 100 beaver which had been causing damage have been live-trapped, tagged and released into areas of low beaver numbers. The majority of these beaver moved considerable distances, the average distance moved being 6.8 miles. On the basis of these movement studies, recommendations were made that beaver be released in potholes and lakes, especially those with good to excellent food supplies, ample water depth and isolated more or less from water routes by which beaver could leave.

Efforts have been continued in collecting field data on beaver habitat. Evidence continues to show that beaver ponds create valuable habitat for many game species. Beaver damage is also assessed annually.

A preliminary study of otter in Wisconsin over the past five years has consisted of work on population dynamics, harvest, food habits and distribution. The otter population has been on the increase over the past few years in spite of being trapped annually by beaver trappers. Many otter are taken accidentally in beaver traps during the average season. Otter feed extensively on fish and crayfish; the proportion of game fish to rough fish to crayfish in the diet is not yet known.

#### **Wildlife Pathology Research Project**

Wildlife specimens found dead or dying and suspected of being diseased are submitted by field personnel and interested sportsmen and are examined to determine the cause of death or disease, and its significance. Information

on diseases in Wisconsin wildlife is growing and is becoming increasingly important in the management of various game animals and their habitat. Cooperation is extended by the Animal Disease Diagnostic Laboratory of the Wisconsin Department of Agriculture in these examinations.

Over the past year, serious epizootics of ulcerative enteritis in quail, lead poisoning in geese, and encephalitis in raccoon were encountered.

### Game and Range Survey Project

The game survey project is responsible for the administration of surveys designed to obtain information on the status of game animals, as well as to establish or refine new or existing methods. Many of these have been initiated and tested by other research projects. At present there are fairly well established techniques applying to deer, pheasants, quail, ruffed grouse, and prairie grouse. Game populations usually undergo considerable seasonal swing during the course of the year, and it is desirable to be able to follow these changes. The seasonal approach can shed considerable light on the cause of variation in the status of species as it highlights the change period. A great many surveys are performed by area game management personnel who report their findings to this project. The procedures are being incorporated into a "technical specifications" series, and it is expected that this will provide a revisable handbook of techniques when all surveys are included.

Seasonal surveys administered by this project include: ruffed grouse winter flush counts and spring drumming counts, prairie grouse dancing ground surveys, pheasant crowing counts, mourning dove and woodcock audiotranssects, grouse and pheasant brood surveys, muskrat winter house counts, surveys of the mast and berry crop, hayfield cutting and available standing corn, Hungarian partridge census by rural mail carriers, and a survey of the muskrat harvest based on pelt purchases and trappers' questionnaires.

Observations have been continued on the Upper Fox River Valley, particularly on conditions existing on a one-half-mile strip of Lake Puckaway shoreline. Major changes over the past year consist of an increase in the density of vegetation. A questionnaire was distributed to department personnel to gather information on jackrabbit releases. Results show that releases have not been of much importance in the extension of the range of this species in Wisconsin. The wetlands inventory begun in May 1954 has been continued. Racine and Kenosha counties have been completed, and fourteen additional counties are being worked on presently to gather data on existing wetland areas and their value to game populations.

A total of 69 adult wild turkeys was released in a 99,000-acre area in the Meadow Valley unit of the Central Wisconsin Conservation Area and the Necedah National Wildlife Refuge. At least nine of the birds survived the winter, and a few broods were reported. Two follow-up releases have been made in an attempt to re-establish the wild turkey in Wisconsin.

A technique for obtaining an inventory of the deer on specific areas has been worked out and tested on areas in the Nicolet and Chequamegon National Forests, which consists of counts of deer pellet groups. Browse utilization surveys have also been made in connection with the pellet group census.

## Forest Protection

It is the primary responsibility of the Forest Protection Division to protect from uncontrolled forest fires the forested land in the eleven forest protection districts of our state.

A generation ago there was considerable doubt that forest fires could be controlled. It now has been demonstrated that they can, and at a reasonable cost. Wisconsin has progressed far in solving its forest fire problems, but the threat of forest fire remains. A constant effort must be made to hold the line and do the job more efficiently. To do the job it takes organization, men and equipment. It can be stretched but it has its limits. A combination of circumstances with hazards above normal and too many fires burning at any one time might overwhelm any good organization and develop into a modern version of the Peshtigo fire.

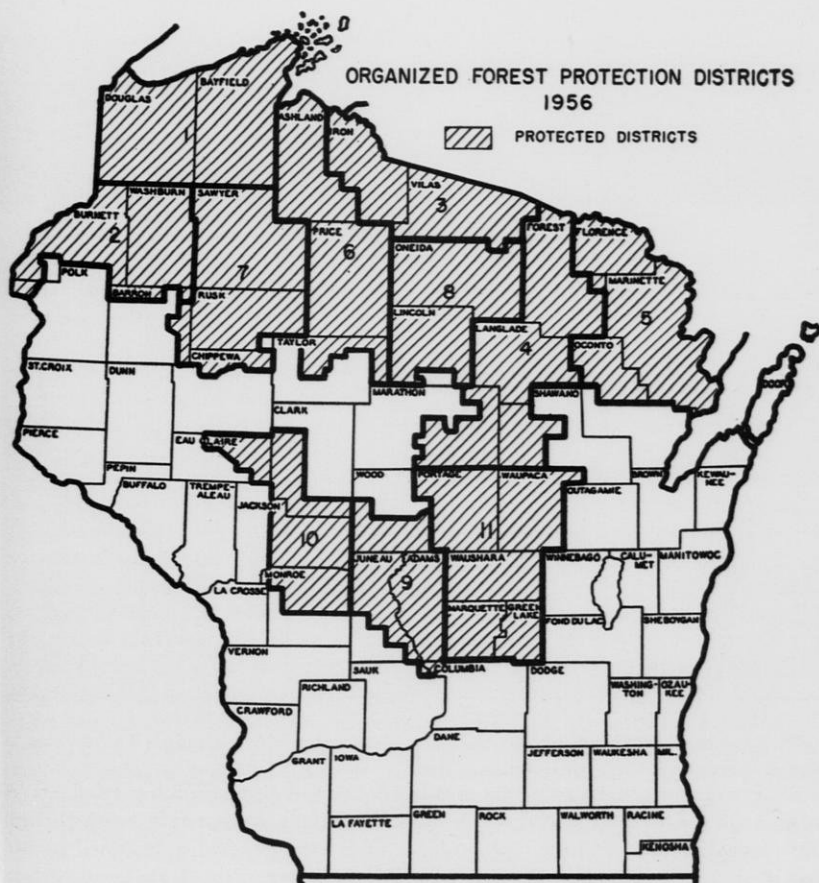


This is one of Wisconsin's subdistrict ranger stations.

A reasonable margin of safety beyond normal requirements is also essential, since emergency conditions occur periodically and one bad year can wipe out all that has been gained in a generation. Fire control seeks to reach a point where fire losses can be so reduced that forest property becomes an insurable risk. While this does not guarantee the individual property owner against loss, it makes it feasible for him to protect himself by insurance or additional methods if he so desires. Consequently, there can be no letup in protection efforts if forest fires are to be kept under control.

During this last biennium the organization remained basically the same, with the chief ranger responsible to the state forester along with other forestry divisions. Eleven districts combined into four supervisory areas break down administrative problems.

It has been and still remains the policy of the forest protection division to take speedy, energetic and thorough suppression action on all fires that occur within the boundaries of the organized districts. This means that



while the number of fires which may occur is always an unknown factor, the fire plan must include decisive action to control all fires immediately, or to make a thorough analysis of the situation and of the control of every such fire within the first work period.

Failing in this effort, the attack each succeeding day will be planned and executed with the aim of securing control before 10 o'clock of the next morning. When the fire is controlled, suppression work is carried on until the fire is extinguished. The permanent and seasonal personnel make the initial attack on most fires. When conditions are found to be beyond their control, additional men are called into action from other divisions and emergency employes are hired from the vicinity.

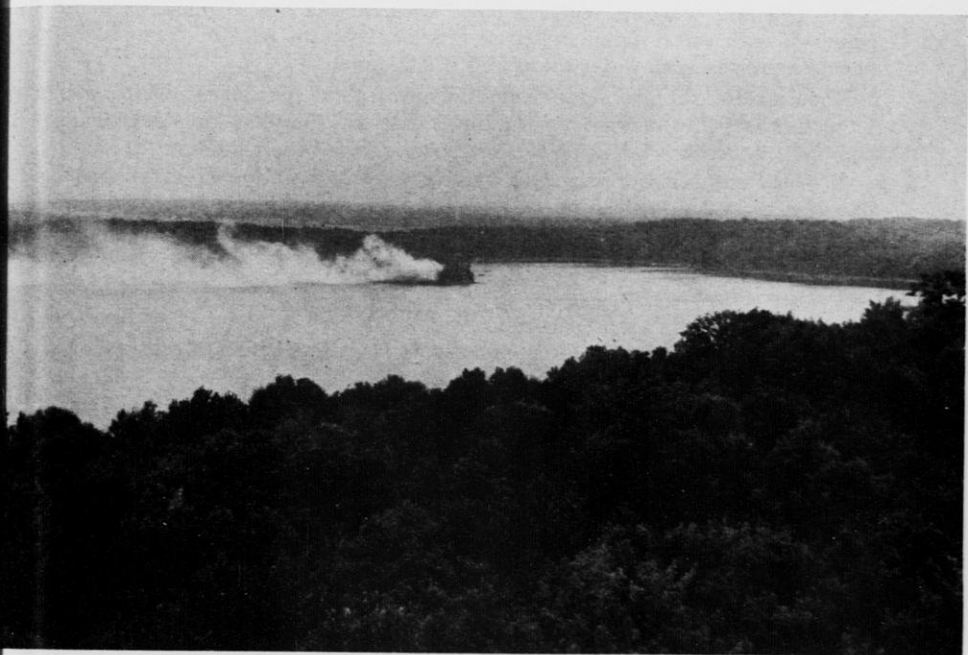
The biennium from July 1, 1954 through June 30, 1956 included some exceedingly dry weather which brought with it periods of extreme fire hazard. Hazard in April 1956 reached as high as 91% as recorded by the Lake States forest fire danger meter. Otherwise the hazard and seasons were moderate except for some localized conditions where some minor increase in fire danger was experienced.

To follow the progress of forest fire protection, let us look at the suppression statistics from 1930 to June 30, 1956:

<i>Year</i>	<i>No. of Fires</i>	<i>Acres Burned</i>
1930	2,300	513,846
1931	2,340	640,979
1932	3,168	119,458
1933	3,659	259,041
1934	2,873	127,793
1935	561	1,830
1936	2,208	100,814
1937	1,311	2,967
1938	916	8,081
1939	2,021	9,864
1940	1,622	11,534
1941	799	1,439
1942	823	3,104
1943	962	12,814
1944	1,180	9,532
1945	742	8,971
1946	1,567	7,792
1947	1,398	16,007
1948	1,825	23,574
1949	1,164	9,749
1950	669	2,313
1951	464	2,036
1952	1,246	4,962
1953	1,218	9,799
1954	957	6,736
1955	855	3,461
1956 (6/30/56)	712	4,094

Fire causes retained about the same relationship although there was a slight increase in lightning-caused fires.

Railroads continued to cause a disappointingly high number of fires. A large number of these are directly caused by train movements, even though the increased use of diesel locomotives had been generally assumed would result in an appreciable decrease in the total number of railroad-caused



**A careless camper on an island started this forest fire.**

fires. A continuance of locomotive inspection and installation of fire safety devices seems to be the most practicable course to secure the necessary reduction, although reduction or elimination of train movements on branch lines should also have some good effect.

Hand fire suppression methods and tools have long since given way to mechanical equipment, and such items as two state-owned airplanes, two contract airplanes, 154 trucks, 70 tractors, 95 fire plows, 65 water tank trailers, 95 tractor-hauling trailers, 193 radios, and 2,000 miles of telephone line, together with some 500 instruments, are among the larger items of equipment that were used during the biennium and were maintained in instant readiness by the personnel.

During the period of the biennium many fixed installations were required to provide this protection. One forest protection headquarters and hangar, 44 ranger stations, 141 lookout towers, 300 other buildings, 64,000 items of small equipment and hand tools, 345 miles of fire lanes and tower-access roads, and 101 portable power pumps were required to do the job.

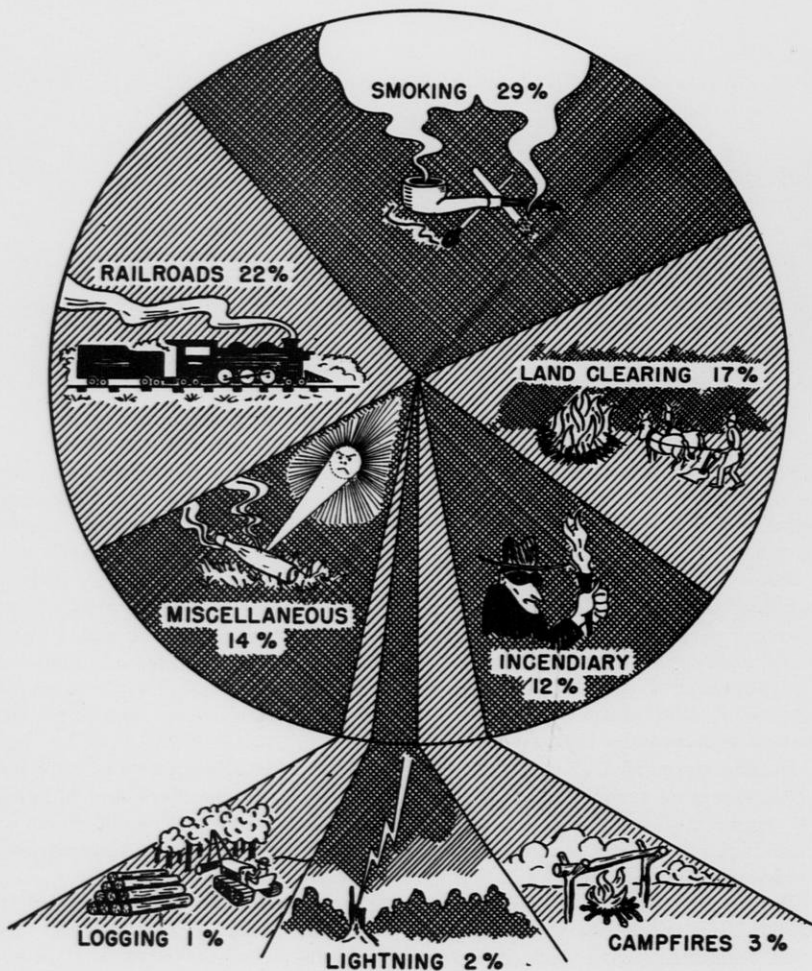
In the spring of 1955, 31 new trucks replaced 31 old tradeouts, and in 1956, 35 old trucks were traded in for new. The tendency has been to shift from standard drive pickups to the four-wheel-drive Willys and International Harvester trucks to facilitate greater use in off-the-road service. This tendency will continue in new truck purchases as the increased mobility of the four-wheel-drive pickups provides better use of the truck pump and water on running fires.



Six new fire tractors replaced older wornout machines which were not equipped with water tanks and power takeoff pumps. All fire tractors will now be equipped with water tanks and P.T.O. pumps.

Modernization of fire equipment continued in the Tomahawk shops with 12 more heavy fire plows being equipped with new bottoms and four tilting bed trailers having wooden platforms replaced with steel channels.

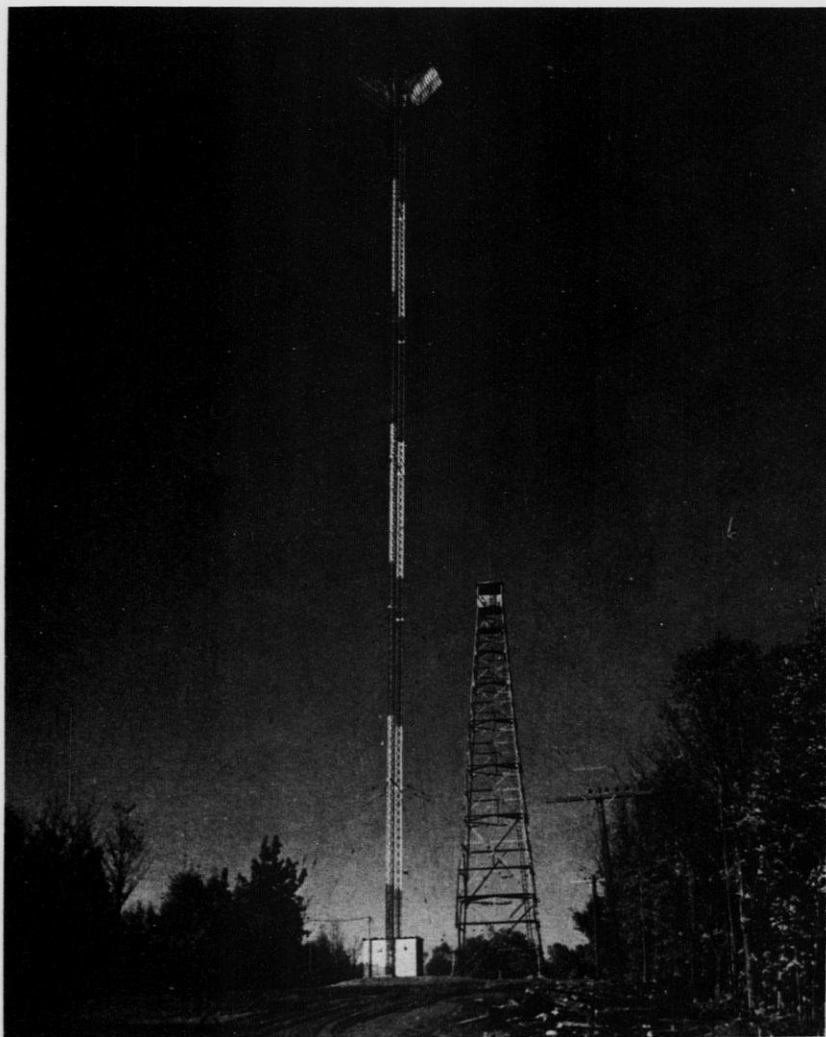
A brush chipper for disposing of brush slash resulting from telephone line clearance was purchased and proved excellent in eliminating the need for costly piling and burning during dry weather.



Relative importance of the principal causes of forest fires - Wisconsin, 1935-1956

Other new equipment included a heavy duty low-bed trailer for transporting the new HD-14 bulldozer and for moving power shovels and bulldozers for other divisions.

An eighty foot blacktopped airplane runway which connected with the National Container Corporation runway to the west was constructed at Tomahawk airport. This paved runway of a little over 3,000 feet in length allows airplanes of the size of the DC-3 to use the port.



The Kennedy microwave tower, a unit in the state radio communication system, looms high above an adjacent lookout tower.

In trying times the headquarters at Tomahawk continues to function as a center for directing the distribution of extra men and equipment as well as the transmitting of messages. As a central warehouse, it provides, on short notice, everything from office forms and field equipment to fire prevention material.

Forest fire prevention continued to be an important activity. There has been no letup in the popularity of "Smoky Bear" as the fire prevention symbol through the state and nation.

The major preventive measures taken included contacts with the press, news releases, radio and television presentations, distribution of posters, stuffers, leaflets and stickers. Roadside signs were erected, training programs conducted, and slash operations checked and compliance enforced.

Sound legislation, a stable policy, consistent financial support, and progressive leadership have all contributed to the progress made during the past quarter century. Adherence to these principles, together with technological progress, should assure that forest protection in Wisconsin will continue to go "forward."

## Forests and Parks

### WISCONSIN STATE FORESTS

The Wisconsin State Forests had their beginning in the early years of the Twentieth Century (1905), and over a period of fifty years the people of the state, through the passage of enabling legislation, have come into the ownership of approximately 280,000 acres of forest land which is being developed and managed as state forests.

The primary ownership of these lands is in the northern part of the state. These five state forests are the Northern Highland, American Legion, Brule River, Council Grounds, and the Flambeau River State Forests.



The 25th anniversary of Eagle Scout camping in the Northern Highland State Forest was celebrated.

The southern forests, which are located in the more densely populated areas of Wisconsin are the Kettle Moraine and the Point Beach State Forests.

The report of the various activities in these state forest properties during the last two years follows.

### Recreational Use of State Forest Areas

There are forty-three primary camp and picnic grounds and two-hundred-eight secondary camping grounds, boat landings, wayside picnic areas and vistas in use on the State Forests of Wisconsin.

The number of people using the state forests as recreational areas for camping, fishing, hunting, picnicking, hiking and other uses is rapidly approaching in number that of the state parks.

### CAMPGROUND REGISTRATION—FOR STATE FORESTS— (1955-1956 Calendar Year)

Forest	Camper Days	
	1955	1956
American Legion Forest.....	14,383	*17,978
Brule River Forest.....	No record	No record
Flambeau River Forest.....	664	830
Council Grounds Forest.....	721	122
Northern Highland Forest.....	59,434	*74,292
Kettle Moraine State Forest.....	47,074	47,599
Point Beach State Forest.....	7,490	8,686
Total Camper Days.....	129,766	149,507

\*Estimate based on 25% increase over 1955.

In the more heavily populated southeastern section of Wisconsin the recreational uses of the Kettle Moraine and Point Beach State Forests almost equal those of some of the larger state parks.

The following chart will give some indication of the pressure of public use in the state forests which are located in the densely populated sections. (Attendance figures are based on the use of mechanical car counters.)

### ATTENDANCE AT HIGHLY DEVELOPED AREAS STATE FORESTS—(1955-1956 Calendar Year)

Forest	1955		1956	
	Visitors	Cars	Visitors	Cars
Council Grounds State Forest.....	70,682	20,308	65,465	18,200
Kettle Moraine State Forest.....	573,791	137,636	557,953	135,609
Point Beach State Forest.....	285,444	71,563	232,872	58,218
Total Visitors and Cars.....	929,917	229,507	856,290	212,027

## STATE FOREST LAND ACQUISITION

The purchase of new lands within the approved boundaries of the established state forests has continued with substantial acreages being added to each of the forests. The total area purchased was 4,015.93 acres at a cost of \$119,197.93.

The following table shows the acreages purchased as they relate to the individual state forests for the period July 1, 1954 to June 30, 1956.

<i>Name</i>	<i>Acres</i>	<i>Cost</i>
<b>Northern Forests</b>		
American Legion State Forest.....	228.63	\$ 2,595.00
Brule River State Forest.....	505.00	4,086.00
Flambeau River State Forest.....	1,142.26	41,150.00
Northern Highland State Forest.....	951.24	2,816.93
Total.....	2,827.13	\$ 50,647.93
<b>Southern Forests</b>		
Kettle Moraine State Forest.....	1,028.80	\$ 60,350.00
Point Beach State Forest.....	160.00	8,200.00
Total.....	1,188.80	\$ 68,550.00
Total Land Acquisition.....	4,015.93	\$119,197.93

Acquisition has also been initiated on the newly created High Cliff Forest Park Area in Calumet County for the purchase of approximately 300 acres in an area which will eventually include about 1,100 acres.

The state forests of Wisconsin now have a total area of 278,312.17 acres.

## STATE FOREST IMPROVEMENTS FOREST HIGHWAYS

The state forest highways are constructed and maintained with the advice and cooperation of the State Highway Commission as provided for in Chapter eighty-four of the statutes.

During the past two year period several important road improvements have been completed in the state forest areas and they include:

### Northern State Forests

1. The reconstruction of County Trunk Highway D was completed in the American Legion Forest.
2. Five miles of forest road in the Brule River Forest was resurfaced.
3. In the Flambeau River Forest five miles of new highway is partially completed on the Hawkins-Connors Lake road.
4. In the Northern Highland Forest the reconstruction of County Trunk G was completed and in addition five miles of secondary forest roads were also reconstructed.

### Southern State Forests

1. Completion of 4.25 miles of the Kettle Moraine Scenic Drive including bituminous concrete surfacing in Fond du Lac and Washington Counties, from New Fane south to County "H" in the Town of Kewaskum was accomplished. (Northern Unit of Kettle Moraine State Forest).





## Buildings and Grounds

The recreational uses made of the state forest area, particularly the camping grounds, has increased more than 25% as compared to the previous two year period. This fact has brought about the need for improvements to the existing camping and picnic grounds in the forest and for the construction of additional facilities in some areas.

### Northern Forests

In the Northern Highland State Forest a new picnic grounds, complete with sanitary facilities, swimming beach and boat landing, was constructed on the north side of Arbor Vita Lake.

Enlargements and improvements were also made to four existing camp grounds, six public boat landings and four picnic areas.

A new residence and small garage have been constructed on the Flambeau River State Forest along with five new canoe campsites. In the Brule River Forest a new picnic area was constructed along the Brule River near Stone's Bridge.

### Southern Forests

On the Northern Unit of the Kettle Moraine State Forest a camping area complete with sanitary facilities, water, tables and parking area was constructed at the Long Lake Public Use Area. The beach was also improved. The Greenbush Ski tow was completely reconstructed. At the Parnell observation tower a new foot trail, picnic and parking areas were completed.

In the southern area of Kettle Moraine State Forest a drinking water system was installed at the Lapham Peak picnic grounds. New wells were drilled, sanitary facilities and improved fire places were constructed in the Day Camp Area, the Highway H Wayside and Horseman Wayside Picnic Areas.

Construction of 140 new tables for distribution to picnic and camping areas in the forest was completed.

Installation of drinking water together with improvements to the trailer camping area were made at the Point Beach State Forest.

## FOREST PLANTING ON STATE FORESTS

The reforestation of the State forest lands has been somewhat reduced in acreage during the biennium and the total number of trees primarily because of the increase in the demand for nursery stock to be allocated and sold for planting on privately owned forest lands, plantings in cooperation with such public agencies as the 4-H Clubs, County Forestry Organizations, shelter belt and farm windbreak planting and similar uses.

State forest records show that approximately 1,843,000 were planted on 1,631 acres of land. The primary species planted included the Norway and white pine and white spruce on the Northern State Forests, except that

there were substantial quantities of white cedar, hard maple and white ash planted.

The same was true for the southern forests except that there were substantial quantities of hard maple, white ash, Norway spruce and white cedar planted on the Northern Unit of the Kettle Moraine State Forest.

The following table gives the figures on the forest planting accomplished during the past two year period:

#### FOREST PLANTING—(July 1, 1954–June 30, 1956)

<i>Name</i>	<i>Trees</i>	<i>Acres</i>
<b>Northern Forests</b>		
American Legion State Forest.....	360,600	337.0
Brule River State Forest.....	73,950	89.0
Flambeau River State Forest.....	244,780	265.5
Northern Highland State Forest.....	343,200	332.5
Total.....	1,022,530	1,024.0
<b>Southern Forests</b>		
Kettle Moraine State Forest.....	804,291	593.81
Point Beach State Forest.....	17,000	14.00
Total.....	821,291	607.81
Total Trees and Acres Planted.....	1,843,821	1,631.81

#### Forest Protection—Fire, Insects and Disease

Damage from forest fires in the state forests was considerably reduced as compared to the preceding biennium. The last two years saw a total of 200.25 acres burned in forty-two fires or less than five acres per fire. The cooperative effort of the forest using public has been very instrumental in keeping the number and size of the forest fires down to a minimum figure. The majority of the fires did little or no damage to the forest area because most of them occurred in grassland or marsh areas.

In the Flambeau River State Forest the northern hemlock is being attacked by the hemlock borer and the tops of the mature yellow birch are dying. Dead and dying timber is being salvaged in the forest except in scientific and wilderness areas.

Approximately seven hundred acres of Norway and Jack pine forest plantations on the Northern Highland State Forest were sprayed with D.D.T. (Dichloro-dephenyl-Trichloroethane) in an effort to control the Saratoga spittle bug during the summer of 1955.

Minor amounts of damage from the Norway pine shoot weevil have been noted in the forest plantation at the Point Beach State Forest and the Northern Unit of the Kettle Moraine State Forest.

#### SALE OF FOREST PRODUCTS

The timber sale receipts for the Northern Forests were about equal to the receipts during the previous period. The gross income was \$201,342.52.

Timber management plans for the ten year period 1953–1963 were completed for the Northern Highland and American Legion State Forests. The

estimated allowable annual cut for these two forests has been set at 27,069 cords as a cut of .185 cords per acre per year. The area to be cut during the ten year period is 29,281 acres. 67% of the area is in aspen and white birch types.

**SUMMARY OF FOREST PRODUCTS SOLD  
NORTHERN FORESTS—July 1, 1954 to June 30, 1956**

<i>Forest</i>	<i>Pulpwood and Bolts Cords</i>	<i>Saw Timber Board Feet</i>	<i>Misc. Products</i>
American Legion Forest.....	19,139.55	490,750	10
Brule River Forest.....	968.63	17,220	-----
Flambeau River Forest.....	1,254.32	805,680	25
Northern Highland Forest.....	20,583.40	977,960	-----
<b>Totals.....</b>	<b>41,945.90</b>	<b>2,291,610</b>	<b>35</b>
<b>Total Gross Revenue.....</b>	<b>\$201,342.52</b>		

**SUMMARY OF FOREST PRODUCTS SOLD  
SOUTHERN FORESTS—July 1, 1954 to June 30, 1956**

<i>Forest</i>	<i>Christmas Trees</i>	<i>Christmas Greens Pounds</i>	<i>Saw Timber Board Feet</i>
Kettle Moraine State Forest.....	3,475	45,790	8,790
<b>Total Gross Revenue.....</b>	<b>\$5,260.40</b>		

The apportionment to the counties of 25% of the revenue from the sale of wood products cut on state forest land, of 25% of the revenue from the sale of wood products cut on state forest land, in accordance with section 25.30 of the Wisconsin Statutes for 1954-1956 follows.

The total state forest income for the biennium amounted to \$274,356.92 including timber sales, camping fees, land use rental, concession and other miscellaneous receipts. See breakdown by State Forests.

STATE FOREST INCOME 1954-1956

(Ending June 30, 1956)

<i>State Forests</i>	<i>Campers</i>	<i>Timber Sales</i>	<i>Mess Hall</i>	<i>Land Use Rent Mntce.</i>	<i>Concession</i>	<i>Misc.</i>	<i>Total</i>
<b>Northern Forests</b>							
American Legion.....	\$ 928.50	\$ 68,643.01	\$-----	\$-----	\$-----	\$ 204.28	\$ 69,775.79
Brule River.....		6,931.35				166.90	7,098.25
Council Grounds.....	1.50						1.50
Flambeau.....	2.50	41,798.60		180.00		287.35	42,268.45
Northern Highland.....	2,683.00	87,963.34	6,520.05	3,811.00		5,616.79	106,594.18
<b>Southern Forests</b>							
Kettle Moraine State Forest.....							
Big Foot Beach.....	2,425.74			1,888.00	1,612.16	671.57	6,597.47
Northern Pur. Unit.....	5,305.95	3,995.40		12,944.80	2,423.61	4,379.10	29,048.86
Point Beach.....	2,346.60			1,564.75	1,680.00	1,778.13	7,369.48
Southern Pur. Unit.....	28.40	1,265.00		3,958.80		350.74	5,602.94
<b>Total.....</b>	<b>\$ 13,722.19</b>	<b>\$210,596.70</b>	<b>\$ 6,520.05</b>	<b>\$ 24,347.35</b>	<b>\$ 5,715.77</b>	<b>\$ 13,454.86</b>	<b>\$274,356.92</b>

**APPORTIONMENT TO COUNTIES OF REVENUE FROM SALE OF WOOD PRODUCTS CUT ON STATE FOREST  
LANDS. (Section 25.30, Wisconsin Statutes)**

The following apportionment is made on the basis of state forest acreage as of June 30, 1955

<i>Forest and County</i>	<i>Town</i>	<i>Town Acreage</i>	<i>County Acreage</i>	<i>Percent of County to Forest Total</i>	<i>Total Revenue by Forest</i>	<i>25% Due Counties</i>
<b>American Legion</b> Oneida.....	Lake Tomahawk.....	8,347.69	37,810.30	100	\$30,616.05	\$ 7,654.01
	Newbold.....	10,917.56				
	Sugar Camp.....	7,805.45				
	Woodruff.....	10,739.60				
<b>Brule River</b> Douglas.....	Bennett.....	720.00	18,992.84	100	756.98	189.25
	Brule.....	4,316.27				
	Highland.....	9,692.78				
	Solon Springs.....	4,263.79				
<b>Council Grounds</b> Lincoln.....	Merrill.....	278.17	278.17	100	128.31	32.08
	<b>Flambeau River</b> Price.....	Flambeau.....	1,236.98	7,155.48	9.834	
Lake.....		5,918.50				
Rusk.....	Cedar Rapids.....	5,243.31	9,498.45	13.054		59.01
	South Fork.....	4,285.14				
Sawyer.....	Draper.....	10,551.12	56,108.12	77.112		348.55
	Winter.....	45,557.00				
			72,762.05		1,808.04	452.01
<b>Kettle Moraine</b> Fond du Lac.....	Auburn.....	2,521.94	3,940.97	21.548		35.56
	Osceola.....	1,419.03				
Jefferson.....	Palmyra.....	981.01	981.01	5.364		8.85



**APPORTIONMENT TO COUNTIES OF REVENUE FROM SALE OF WOOD PRODUCTS CUT ON STATE FOREST  
LANDS. (Section 25.30, Wisconsin Statutes)—Continued**

<i>Forest and County</i>	<i>Town</i>	<i>Town Acreage</i>	<i>County Acreage</i>	<i>Percent of County to Forest Total</i>	<i>Total Revenue by Forest</i>	<i>25% Due Counties</i>
Sheboygan.....	Greenbush.....	2,527.29	7,362.49	40.255	-----	66.43
	Mitchell.....	3,615.06				
	Plymouth.....	41.03				
	Scott.....	1,179.11				
Walworth.....	La Grange.....	787.88	1,206.32	6.596	-----	10.88
	Whitewater.....	418.44				
Washington.....	Kewaskum.....	262.50	262.50	1.435	-----	2.37
Waukesha.....	Delafield.....	40.00	4,536.08	24.802	-----	40.93
	Eagle.....	2,039.88				
	Ottawa.....	2,456.20				
			18,289.37		660.07	165.02
<b>Northern Highland</b>						
Iron.....	Mercer.....	7,244.96	12,358.73	9.80	-----	1,250.29
	Sherman.....	5,113.77				
Vilas.....	Arbor Vitae.....	24,311.57	113,755.41	90.20	-----	11,507.73
	Boulder Junction.....	34,091.54				
	Cloverland.....	2,631.79				
	Land O'Lakes.....	5,857.51				
	Manitowish Waters.....	4,279.18				
	Plum Lake.....	31,814.03				
	Presque Isle.....	5,159.72				
	St. Germain.....	3,650.07				
	Winchester.....	1,960.00				
			126,114.14		51,032.08	12,758.02
<b>Point Beach State Forest</b>						
Manitowoc.....	Two Rivers.....	2,138.04	2,138.04			
<b>Totals.....</b>			<b>276,384.91</b>		<b>\$85,001.53</b>	<b>\$21,250.39</b>

**APPORTIONMENT TO COUNTIES OF REVENUE FROM SALE OF WOOD PRODUCTS CUT ON STATE FOREST  
LANDS. (Section 25.30, Wisconsin Statutes)—Continued**

<i>Forest and County</i>	<i>Town</i>	<i>Town Acreage</i>	<i>County Acreage</i>	<i>Percent of County to Forest Total</i>	<i>Total Revenue by Forest</i>	<i>25% Due Counties</i>	
<b>American Legion</b> Oneida.....	Lake Tomahawk.....	8,463.29	37,965.93	100	\$31,510.89	\$ 7,877.72	
	Newbold.....	10,917.56					
	Sugar Camp.....	7,845.45					
	Woodruff.....	10,739.63					
<b>Brule River</b> Douglas.....	Bennett.....	720.00	19,272.84	100	3,028.27	757.07	
	Brule.....	4,316.27					
	Highland.....	9,972.78					
	Solon Springs.....	4,263.79					
<b>Flambeau River</b> Price.....	Flambeau.....	1,316.98	7,235.48	9.835	-----	917.08	
	Lake.....	5,918.50					
	Rusk.....	Cedar Rapids.....	5,246.21	9,531.35	12.955	-----	1,208.02
		South Forks.....	4,285.14				
	Sawyer.....	Draper.....	11,127.39	56,804.99	77.210	-----	7,199.60
		Winter.....	45,677.60				
			73,571.82		\$37,298.81	\$ 9,324.70	
<b>Kettle Moraine</b> Fond du Lac.....	Auburn.....	2,521.94	4,153.97	22.612	-----	198.40	
	Osceola.....	1,632.03					
Jefferson.....	Palmyra.....	981.01	981.01	5.340	-----	46.85	
Sheboygan.....	Greenbush.....	2,343.84	7,039.38	38.319	-----	336.21	
	Mitchell.....	3,445.40					
	Plymouth.....	41.03					
	Scott.....	1,209.11					
Walworth.....	La Grange.....	857.88	1,276.32	6.948	-----	60.96	
	Whitewater.....	418.44					
Washington.....	Kewaskum.....	343.66	343.66	1.871	-----	16.42	

**APPORTIONMENT TO COUNTIES OF REVENUE FROM SALE OF WOOD PRODUCTS CUT ON STATE FOREST  
LANDS. (Section 25.30, Wisconsin Statutes)—Continued**

<i>Forest and County</i>	<i>Town</i>	<i>Town Acreage</i>	<i>County Acreage</i>	<i>Percent of County to Forest Total</i>	<i>Total Revenue by Forest</i>	<i>25% Due Counties</i>
Waukesha .....	Delafield .....	80.00				
	Eagle .....	2,039.88				
	Ottawa .....	2,456.20	4,576.08	24.910		218.56
			18,370.42		\$ 3,509.60	\$ 877.40
<b>Northern Highland</b>						
Iron .....	Mercer .....	7,244.96				
	Sherman .....	5,113.77	12,358.73	9.741		998.29
Vilas .....	Arbor Vitae .....	24,311.57				
	Boulder Junction .....	34,431.54				
	Cloverland .....	2,631.79				
	Land O'Lakes .....	5,857.51				
	Manitowish Waters .....	4,657.16				
	Plum Lake .....	31,814.03				
	Presque Isle .....	5,199.72				
	St. Germain .....	3,650.07	114,513.39	90.259		9,250.07
	Winchester .....	1,960.00				
			126,872.12		40,993.42	10,248.36
<b>Point Beach State Forest</b>						
Manitowoc .....	Two Rivers .....	2,259.04	2,259.04			
Totals .....			278,312.17		\$116,340.99	\$29,085.25

[ 54 ]

## WISCONSIN STATE PARKS

The Wisconsin State Park system had its beginning with the purchase of the 675 acre, scenic Interstate Park near St. Croix Falls, fifty-six years ago. (1900). Since that time and up to the present, thirty scenic, historical-memorial, roadside parks and natural areas have been established and are being used by an ever increasing number of Wisconsin people and residents from all sections of the United States.

It has been reliably estimated that the population of Wisconsin is now more than 3,750,000 people and with the ever increasing number of people in the United States, the amount of recreational use made of the state parks is rapidly becoming much greater. The rapid improvement of the state's highway system is making it easier for visitors from other localities to come to Wisconsin vacation areas for relaxation during the spring, summer and fall seasons.

### Public Use—State Parks

Wisconsin state parks are visited by people from every state in the Union, from many of the provinces of Canada and from other countries on the North American continent. The attendance over the past two calendar years has been more than 10,000,000 people which is 12% over the 1952-1954 period of when 8,750,000 people visited the parks.

There was a thirty percent increase in family camping in 1955 as compared to the 1954 season in the state parks and there was an approximate increase of 20% again in 1956 despite a moderate increase in the camping fees charged. During the two year period Devil's Lake and Peninsula State Parks continued to be the most popular camping parks with more than 160,000 camper days being recorded for these two parks annually.

### State Park Road Improvements

The State Forest and Park Road Fund has been a source of funds for the construction, improvement and maintenance of the highways within the various park boundaries. Under the law now in force \$500,000.00 is set aside annually by the State Highway Commission for this type of improvements in the Wisconsin parks and other conservation properties.

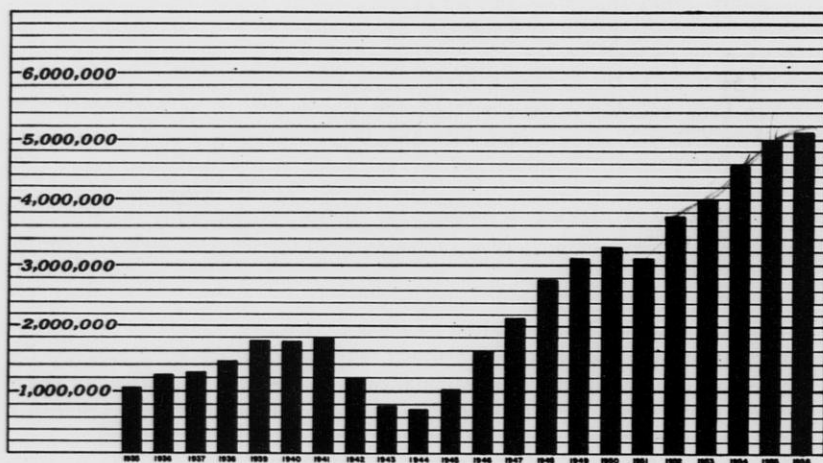
During the 1954-1956 period it was possible to black top thirty-nine and five tenths miles of park roads, construct nine parking lots and construct three and five tenths miles of new or relocated roads.

The following tabulation will itemize the work completed by state parks:

#### STATE PARK ROAD IMPROVEMENTS—1954-1956

Park	Miles New Con- struction	Miles Bituminous Surfacing	Parking Lot Con- struction
Devils Lake State Park		6.5	
Governor Dodge State Park	2.25	2.25	2
Roche A Cri Roadside State Park			
Nelson Dewey State Park		1.5	1
Wyalusing State Park		7.80	
Brunet Island State Park			1
Lucius Woods	.25	.25	1
Interstate State Park	Two new entrances from Highway 8		
Pattison State Park			1
Rib Mountain State Park		5.00	
Peninsula State Park	1.00	9.00	1
Potawatomi State Park		4.50	
Terry Andrae State Park		1.25	
Aztalan State Park		1.00	2
Totals	3.50	39.05	9

## STATE PARK ATTENDANCE 1935-1956



### STATE PARK ATTENDANCE—1955-1956 CALENDAR YEARS

State Park	Number of Visitors		Number of Cars		Camper Days	
	1955	1956	1955	1956	1955	1956
Aztalan	25,000	26,250	6,000	6,3000		
Big Foot Beach	196,751	171,729	46,134	41,444	14,277	13,070
Brunet Island	114,191	115,955	28,305	28,412	4,778	5,785
Castle Mound	10,591	6,368	2,824	2,057	73	59
Copper Falls	116,082	108,148	28,757	26,653	3,558	3,923
Cushing Memorial	23,984	24,396	5,996	6,152	36	
Devils Lake	1,339,881	1,243,166	336,246	310,791	110,663	119,337
First Capitol	8,600	10,600	2,166	2,650		
Governor Dodge		16,000		4,000		
Interstate	593,102	557,516	127,459	119,812	4,553	7,347
Lizard Mound	25,126	27,020	5,601	6,810		
Lost Dauphin						
Lucius Woods	170,162	249,044	42,543	62,261	1,443	2,226
Merrick	205,900	196,188	55,900	49,047	388	1,437
Mill Bluff	25,985	24,636	6,695	6,852	170	132
Nelson Dewey	43,568	65,028	10,897	14,114	55	
New Glarus Woods	9,760	7,143	2,440	1,815	114	158
Old Wade House	25,795	29,236	6,449	7,346		
Ojibwa	16,831	14,168	4,315	3,427	1,025	1,062
Pattison	311,962	321,721	77,765	80,464	5,359	5,902
Peninsula	663,687	625,859	166,463	156,658	56,311	64,682
Perrot	73,705	78,210	18,428	18,953	240	
Potawatomi	287,361	319,056	71,840	79,779	5,283	5,874
Rib Mountain	263,150	236,345	67,280	55,704	2,000	2,310
Roche a Cri	25,230	54,876	6,564	13,743	653	1,476
Rocky Arbor	53,490	146,878	14,203	36,462	5,771	7,506
Terry Andrae	170,978	157,892	42,748	39,473	13,904	14,146
Tower Hill	44,155	54,288	11,474	13,572	377	608
Wildcat Mountain	44,498	49,274	11,225	12,319	409	566
Wyalusing	105,007	103,518	25,978	25,877	4,650	4,415
Total	4,994,532	5,040,508	1,232,695	1,232,979	236,072	262,021

\*No records kept.

## Improvements State Parks

Capital improvements in the thirty state parks were greatly intensified when the 1955 legislature provided a fund of \$500,000.00 to the Conservation Department for the construction of much needed sanitary facilities, domestic water supplies, shelters and similar projects in the state parks.

At this time plans have been completed and work has begun on the construction of modern toilet buildings in the Nicolet Bay Camp Area, reconstruction of the Welcher's point camp ground shelter, new pit type sanitary facility at Eagle Tower picnic area, improvements to Horseshoe Island dock at the Peninsula State Park. Potawatomi Park improvements include a new drinking water supply. At the Rib Mountain State Park a new shelter has been constructed. Work at the Governor Dodge State Park includes sanitary facilities, a well and planning on the Dam Structure. The Devil's Lake State Park projects include additional sanitary facilities at the Chateau concession building, south shore camp area, bath house and sanitary facilities and general improvement to water and sanitation in the area.

Preliminary plans are completed for the construction of a combination shelter, bath and toilet building for the Terry Andrae State Park camping area and a similar building for the Big Foot Beach State Park. Improvements of a similar nature are planned for other parks in the state.

Major improvements completed in the parks as a part of the regular budget during the biennium include the reconstruction of the dam and dyke at the Pattison Park, the installation of a new Constam T-Bar ski lift, small building for lower T-Bar ski lift, 50 h.p. electric motor installed on

INFORMATION ON WISCONSIN STATE PARKS														
FOR YOUR ENJOYMENT														
PRIMARY VALUES				ESTAB.	SCENIC	RECREATION	HISTORIC	CULTURAL	SCIENTIFIC	EDUCATIONAL	SPECIAL INTERESTS	WATER SUPPLY	WATER RECREATION	WATER POWER
NAME OF STATE PARK	COUNTY	LOCATION & HIGHWAYS	DOMINANT FEATURES											
<b>SCENIC PARKS</b>														
BIG FOOT BEACH	WALWORTH	101 S. of Lake Geneva R.T.H. 12, 140	A Beach Park	1931	X	X	X	●	●	●	●	●	●	●
BURNETT ISLAND	CORNING	100 N. of Cornish R.T.H. 27	Water Island Park	1936	X	X		●	●	●	●	●	●	●
COPPER FALLS	ASHLAND	140 N. of Madison R.T.H. 12	Water Scenery, Water Falls	1919	X	X		●	●	●	●	●	●	●
DEVILS LAKE	DAVE	2 1/2 N. of Durban R.T.H. 123	Shulls, Mountain Scenery	1911	X	X	X	●	●	●	●	●	●	●
GOVERNOR DODGE	DOUG	2 1/2 N. of Dodgeville R.T.H. 23	Rocky Promontories	1948	X			●	●	●	●	●	●	●
INTERSTATE	POLK	51 Crds Falls U.S. 6	River Gorge, Rock Shulls	1900	X	X		●	●	●	●	●	●	●
KENOSA	SULLY	101 N. of Fountains City R.T.H. 36	A River Park	1932	X	X		●	●	●	●	●	●	●
PATTISON	DOUGLAS	10 N. S. of Superior R.T.H. 36	Highest Waterfall in State	1930	X	X		●	●	●	●	●	●	●
RAMONA S	DOOR	7 1/2 N. of Cross R.T.H. 41	Scenic View, Limestone Shulls	1900	X	X		●	●	●	●	●	●	●
RENNET	TREMPEALEAU	140 N. of Trempealeau R.T.H. 36	River Scenery, Wooded Shulls	1919	X	X		●	●	●	●	●	●	●
POTAWATOMI	DOOR	2 1/2 N. W. of Sheboygan Bay R.T.H. 42	Limestone Shulls	1926	X	X		●	●	●	●	●	●	●
RIB MOUNTAIN	MARATHON	430 W. of Wausau R.T.H. 63	Highest Point in State	1927	X	X		●	●	●	●	●	●	●
TERRY ANDRAE	SHEBOYGAN	430 E. of Sheboygan R.T.H. 141	Lake Michigan Sand Dune	1918	X	X		●	●	●	●	●	●	●
WILDCAT MOUNTAIN	VERNON	R.T.H. 33 Near Otterdale	Shull Leads	1948	X			●	●	●	●	●	●	●
WYDALING	SHAWT	4 1/2 N. S. of Proctor in Chippewa U.S. 16	Jet Mill & Mill River	1917	X			●	●	●	●	●	●	●
WOLF CLIFF	CALUMET	9 1/2 E. of Wausau R.T.H. 14	Wooded Shulls, Lake Winnebago	1904	X			●	●	●	●	●	●	●
<b>HISTORICAL MEMORIAL PARKS</b>														
AZTAHAN	JEFFERSON	4 1/2 E. of Lake Mills U.S. 30	Ancient Indian Village	1950		X						●	●	●
COVING	WAUKESHA	Dunesford U.S. 30	Historic Shulls	1915		X						●	●	●
FIRST CAPITAL	LAFAYETTE	13 1/2 N. of Beloit R.T.H. 6	First Territorial Capital	1924		X						●	●	●
LELAND BOUND	WADSWORTH	10 N. W. of West Bend R.T.H. 141	Indian Mounds	1930		X						●	●	●
LOST SHIPWRECK	DOOR	3 1/2 S. of Du Pore U.S. 41	Remains of Last Shipwreck of France	1917		X						●	●	●
MELSON KEY	DOOR	10 N. S. of Cornish R.T.H. 27	Remains of First Shipwreck	1935		X						●	●	●
OLD WAGE HOUSE	DOOR	10 N. S. of Cornish R.T.H. 27	Historical Early American Inn	1932		X						●	●	●
TOWER HILL	DOUG	2 1/2 N. of Spring Grove R.T.H. 23	Historic Shull Tower, River Shulls	1922	X	X	X	●	●	●	●	●	●	●
<b>ROADSIDE PARKS</b>														
CASTLE MOUND	JACKSON	101 S. of Black River Falls R.T.H. 12	Removable Shulls	1937	X			●	●	●	●	●	●	●
INDIAN WOODS	DOUGLAS	State Highway U.S. 53	Uplift Pine Timber	1930	X	X		●	●	●	●	●	●	●
MILL CLIFF	DOOR	7 1/2 N. of Cross, Trempealeau U.S. 16	Scenic View	1939			X					●	●	●
NEW GLADES WOODS	DOOR	101 S. of New Glades R.T.H. 63	Wooded Valley	1954				●	●	●	●	●	●	●
QUINCY	SABYER	101 E. of Sidney R.T.H. 70	River Scenery	1932				●	●	●	●	●	●	●
ROCKE A CRY	ADAMS	2 1/2 N. S. of Friendship R.T.H. 1	Woodlands, Rocky Shulls	1948	X			●	●	●	●	●	●	●
ROCKY ARBOR	JANEAU	100 W. of Wisconsin Dunes U.S. 12	Rocky Ledges, Wooded Valleys	1932	X			●	●	●	●	●	●	●



one of the rope ski tows and the placing of 11,600 cubic yards of earth on the ski runs at the Rib Mountain State Park.

Many other small works of betterment in the parks include construction of 170 more new picnic tables, installation of 97 new fire places (metal type), construction of thirty rustic benches, additions to picnic areas in four parks, the construction of four new pit-type toilet buildings, bathing beach improvements and installation of electricity in camping and trailer areas in several parks.

Restoration of the old Wisconsin Supreme Court Building at the First Capitol State Park, the remodeling of the office and information building at the Nelson Dewey State Park and the restoration of the Northwest Pyramidal Mound at the Aztalan Park were also completed.

The peninsula Park golf course club house was completed and an addition was made to the park office together with a new well and installation of a complete sanitary system for the office. Other work included the construction of four new toilet buildings in the Nicolet Bay area of the park, and four new toilet buildings and the remodeling of the campground shelter at the Potawatomi State Park.

#### Land Purchase and New Park Areas

The acquisition of new land in the state parks was limited to the purchase of three parcels amounting to 215.75 acres at a total cost of \$6,300.00. In addition the Conservation Commission accepted, as gifts, in the name of the State of Wisconsin, two tracts of land; one in Copper Falls State Park of 80.56 acres and the other in the Nelson Dewey State Park of 12 acres.

#### STATE PARK LAND ACQUISITION

<i>Park</i>	<i>Acres</i>	<i>Cost</i>
Perrot State Park.....	90.75	\$3,500.00
Governor Dodge State Park.....	5.00	300.00
Copper Falls State Park.....	120.00	2,500.00
	215.75	\$6,300.00

In addition two new roadside parks have come into actual ownership of the State. The Mill Bluff Roadside Park in Monroe County and the Castle Mound Roadside Park in Jackson County.

During the past two years several parcels have been given by interested people, legislative representatives and organizations for the creation or establishing of one or more state parks in areas not now served by existing state owned properties.

**STATE PARK INCOME**  
**July 1, 1954-June 30, 1956**

[ 59 ]

<i>Name of State Park</i>	<i>Camping Fees</i>	<i>Land Use Rental</i>	<i>Golf Course Fees</i>	<i>Ski Tow Fees</i>	<i>Concession Rentals</i>	<i>Misc. Items</i>	<i>Totals</i>
Aztalan	\$ -	\$ 788.50	\$ -	\$ -	\$ -	\$ -	\$ 788.50
Brunet Island	1,778.28	720.00	-	-	440.00	132.63	3,070.91
Copper Falls	1,405.60	600.00	-	-	2,502.00	-	4,507.60
Cushing Memorial	-	-	-	-	-	43.50	43.50
Devils Lake	40,392.45	17,935.00	-	-	15,095.06	1,076.53	74,499.04
Interstate	2,212.50	1,849.70	-	-	350.00	1,321.70	5,733.90
Lucius Woods	8.50	-	-	-	26.87	20.48	55.85
Merrick	497.35	360.00	-	-	375.00	20.00	1,252.35
Nelson Dewey	-	-	-	-	-	671.59	671.59
Ojibwa	8.50	-	-	-	-	-	8.50
Pattison	1,810.60	840.00	-	-	5,170.21	40.69	7,861.50
Peninsula	24,597.85	4,806.75	36,979.50	-	1,700.00	1,937.80	70,021.90
Perrot	307.75	23.00	-	-	-	-	330.75
Potawatomi	2,122.70	-	-	668.00	-	1,316.68	4,107.58
Rib Mountain	778.00	190.00	-	15,588.81	1,931.87	262.05	18,750.73
Roche A Cri	1.50	-	-	-	-	-	1.50
Rocky Arbor	1,832.10	-	-	-	175.00	-	2,007.10
Terry Andrae	5,073.55	864.00	-	-	456.50	335.40	6,729.45
Tower Hill	-	348.00	-	-	34.88	441.87	824.75
Wildcat Mountain	-	795.00	-	-	-	1,700.52	2,495.52
Wyalusing	1,880.83	250.00	-	-	311.00	1,460.07	3,901.90
<b>Totals</b>	<b>\$ 84,708.06</b>	<b>\$ 30,369.95</b>	<b>\$ 36,979.50</b>	<b>\$ 16,257.01</b>	<b>\$ 28,568.39</b>	<b>\$ 10,781.51</b>	<b>\$207,664.42</b>

## STATE FOREST NURSERIES

### Distribution

Almost one half BILLION trees, (464,129,990) have been produced in the State Forest Nurseries of Wisconsin since the first stock came from Trout Lake Forest Nursery forty-three years ago.

Six forest tree nurseries are operated by the Forests and Parks Division and they are the Trout Lake Forest Nursery, Boulder Junction; Hugo Sauer, Rhinelander; Hayward at Hayward; Gordon at Gordon Prison Camp, Gordon, Wisconsin; Griffith, Wisconsin Rapids; and the Game Food and Tree Nursery at Boscobel in Southwestern Wisconsin.

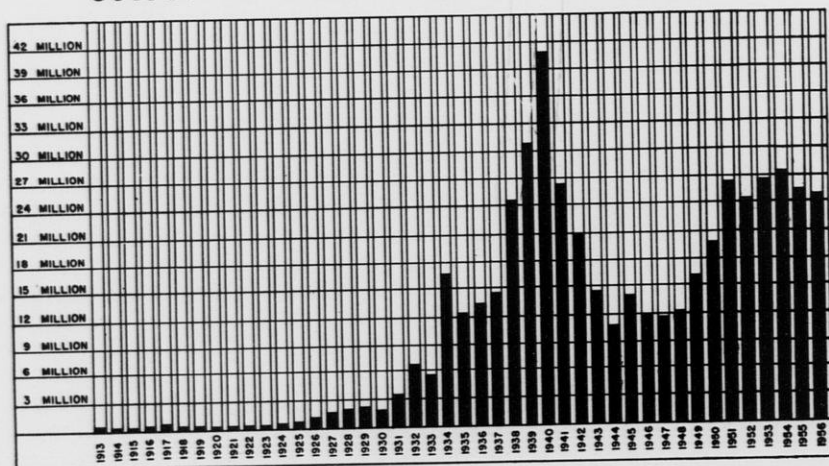
The six nurseries produced and distributed a total of just over fifty million 2-3 and 4 year old trees during the past two year period. The applications for trees exceeded the available stock by a rather large margin, but in spite of this interest in tree planting there were, however, certain varieties in surplus such as jack pine, black locust and white cedar.

(See graf of output of state nurseries 1913-1956)

Steps have been taken to substantially increase the production of trees in the six state forest nurseries. Heavier seeding was accomplished during 1956 and larger amounts are planned for the 1957 season. In addition to this, the Wisconsin Conservation Department has entered into a cooperative agreement with the U. S. Forest Service for the growing of substantial amounts of seedlings at the Toumey Forest Service Nursery, Watersmeet, Michigan. During the spring of both 1955 and 1956, all available Forest Service nursery stock that could be had in the Lake States vicinity was obtained, for distribution to Wisconsin residents interested in reforestation.

While the Conservation Department did not purchase trees during 1956 from private commercial nurseries, it was sympathetic to landowners obtaining trees directly from nurseries of this kind. There is a comparatively

**OUTPUT OF STATE NURSERIES 1913-1956**



small amount of forest planting stock raised in Wisconsin by the Commercial nurseries. In many cases it was necessary for landowners to obtain their stock from other sources than the state and to go considerable distances for it. Several paper companies do, however, maintain their own forest nurseries and are carrying on a rather large industrial planting program.

One of the important problems in the northern part of the United States is the orderly and satisfactory distribution of the nursery stock to the planting sites. The spring planting season does not last over four weeks and the moving of large numbers of trees from the nursery into the ground during this short period is a difficult task. As more trees are produced, this problem will be accentuated and about the only way it can be relieved would be by increasing shipments made in the fall of each year.

The prices charged for planting stock in Wisconsin is based on the cost of production. Cost accountants have maintained good records and from their compilations a small increase was made in the selling prices of the trees. Prices charged in the 1956 season were:

2-0 seedlings -----	\$ 8.00 per thousand
3-0 seedlings -----	10.00 per thousand
2-2 transplants -----	26.00 per thousand

#### Forest Nursery Stock Inventories

The overall stock inventory for the last two years as compared to the 1952-54 biennium shows that there has been a very substantial increase in the number of one year seedlings. This gain amounts to thirty-eight million trees, in addition approximately nine million more 2-0 seedlings are also available this year. The supply of three year seedlings will be in somewhat shorter supply. The four year transplants are about the same as in past years. The 1955 inventory showed a total of eighty million seedlings and transplants as compared with one-hundred-sixteen million trees at the close of the 1956 growing season. This is a sizeable increase and reflects the expansion program in the state nurseries which was begun at the beginning of the biennium.

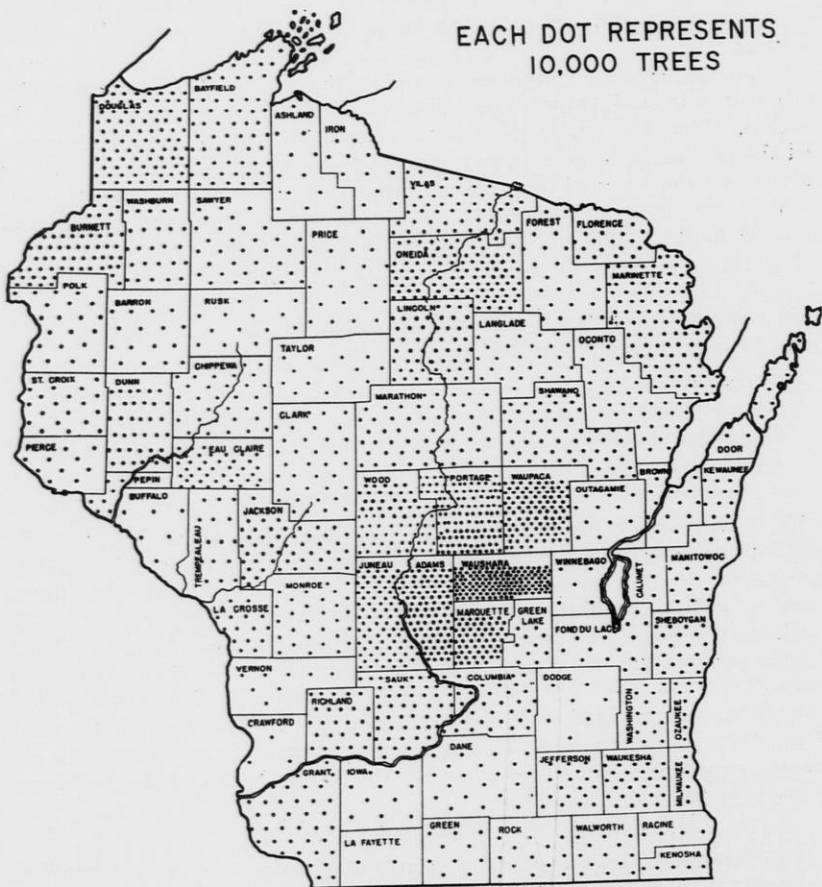
#### Employment

While seasonal help was not particularly plentiful, it was possible through the cooperation of the Wisconsin State Employment Service and the efforts of the individual Nursery Managers, to obtain sufficient workers, both men and women, to dig, sort and package the trees consigned to the many thousands of planting jobs during the short spring season. The recruiting of labor at the Gordon and Rhinelander nurseries was simplified due to the fact that help was available from the nearby State Forest Prison Camps.

#### Forest and Nursery Research

Research in the control of the many different types of diseases and insects that cause losses in the forest tree nursery were continued during both 1955 and 1956. Studies in the control of the pine aphid were temporarily discontinued this season. Measures were taken, however, to keep this pest under control by using Black Leaf "40" and Malathion.

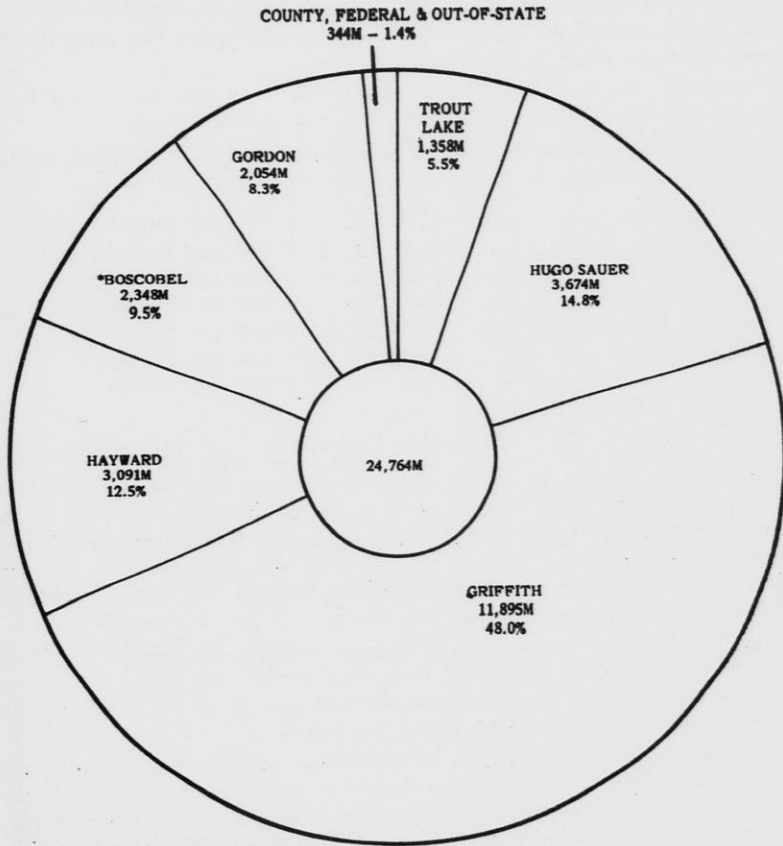
# DISTRIBUTION OF TREES BY COUNTY



Additional work was continued in the control of damping-off fungi. At the Griffith and Boscobel Nurseries a number of fungicides were tried including some of the newer compounds that had never been used before. The losses from the damping-off fungi were not as great as in past years, being limited to about ten percent in both treated and untreated areas. The use of Arasan pelleted seed, and in some cases a Tersan drench, gave reasonably good results in the Griffith, Boscobel and Hugo Sauer State Nurseries.

The tree improvement research project is progressing with the establishing of additional seed orchards and provenance tests. Also, steps are being taken to improve seed collection procedures and an effort has been made to gather and tabulate more information as to the source and quality of seed trees and stands.

# ORIGIN OF TREES BY NURSERY



\*Includes 1,949,125 game food shrubs.

Studies in the use of a sawdust in bolstering the organic content of nursery soils is continuing. Also, experiments are in force in the substitution of natural deteriorated granite for potash fertilizers. There is the possibility that potash contained in the natural granite will not leach away as fast as commercial fertilizers now in use in nursery soil maintenance and improvements.

## Seeding and Transplanting

The maintenance of a rather substantial inventory of the various species of tree seeds is of great importance to the production of an adequate number of trees in the State's Forest Nurseries.



The cone crop in the three Lake States for 1956 was poor. The Norway pine, except for a small number of cones on some of the older plantations, was practically non-existent. White pine and the spruces were also in short supply, but there were areas where these species were reasonably abundant.

The Norway pine cone collections fell far short of the four thousand bushel quota needed as an annual average to carry on the department's current tree production in this species.

Indications are that the Norway pine cone crop will be substantially larger as the new sets of cones appear to be reasonably plentiful.

The following quantities of cones were purchased at the several department collection stations during the fall season of 1955 and 1956:

Norway Pine -----	642.91 bu. @ \$ 6.00 per bushel
White Pine -----	3701.70 bu. @ \$ 2.25 per bushel (1956)
White Spruce -----	136.20 bu. @ \$ 7.00 per bushel
Norway Spruce -----	24.10 bu. @ \$ 3.59 per bushel
Balsam Fir -----	1.00 bu. @ \$ 4.00 per bushel
White Cedar -----	2.00 bu. @ \$ 5.00 per bushel
European Larch -----	1.20 bu. @ \$10.00 per bushel

#### Production Problems

The growing seasons of the past two years have been rather successful with the exception that there was a period of hot, dry weather in the summer of 1955 and again in June 1956. Rain fall was below normal, particularly in the southern part of the state. It was necessary for the nurseries to extend their watering operations through the entire month of October, which was a very unusual procedure.

Snow mold caused some losses in spruce seedlings at Gordon and Hugo Sauer Nurseries in the spring of 1955. Apparently, the warm weather in the early spring aided the establishment and growth of the mold in seedbeds that were still covered with marsh hay mulch.

Mice and gophers continued to be a constant problem and trapping and poison baiting operations had to be carried on periodically. Birds were also a source of damage to newly germinated seedlings as well as immediately following placing the seed into the ground. The best method of holding bird damage in check appears to be the use of wire hardware cloth covering over the beds.

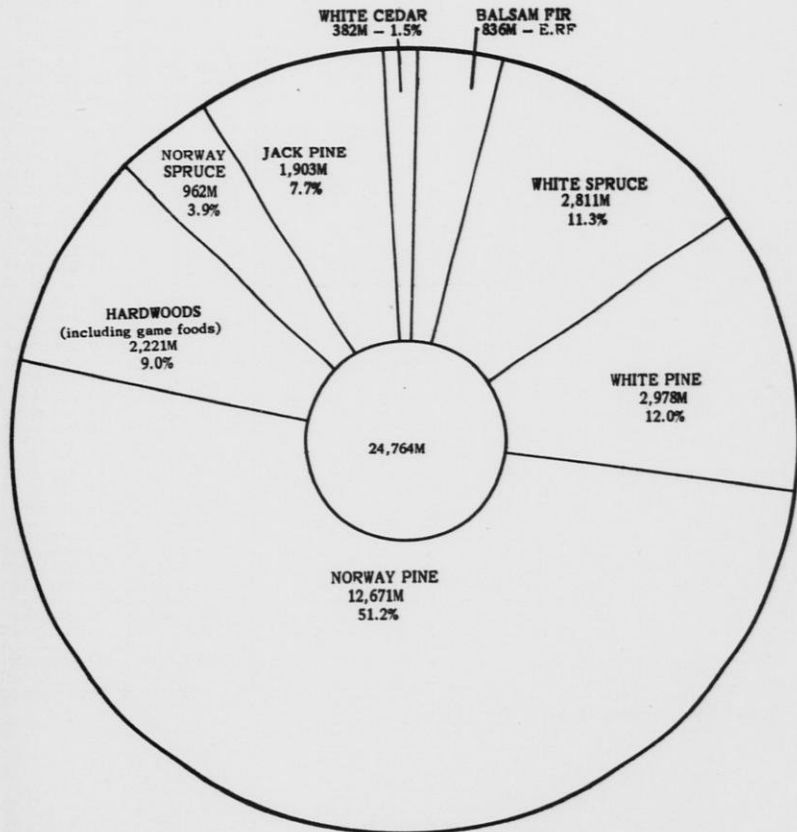
#### New Improvements

A moderate expansion program was begun in the nurseries during 1955. Due to the Soil Bank Program, Wisconsin is planning a thirty million increase in seedling production. This state has always and is presently growing more transplants than any other state or combination of several states. The production of this age class is expensive, takes up an unusually large amount of nursery area and complicates distribution procedures. There continues to be a strong demand for transplants and their discontinuance entirely, as has happened in many other states, would be difficult in Wisconsin.

A large increase in the number of seed beds is being accomplished at the Boscobel Nursery where ample room was available. New beds are also being added at the other nurseries and associated with this increase of trees are needed tools, equipment, and buildings.

At the Griffith Nursery seven and a half acres have been added to the nurseries' producing area. At Gordon and Boscobel five additional acres are being developed. The Hayward and Hugo Sauer Nurseries will take over several acres already developed but unused for a number of years.

## FIELD PLANTING OF TREES BY SPECIES



## TREES DISTRIBUTED THROUGH STATE CHANNELS

<i>Year</i>	<i>Game Food Shrubs</i>	<i>Totals</i>
1911		192,300
1912		18,000
1913		68,500
1914		478,630
1915		77,400
1916		326,850
1917		604,630
1918		508,763
1919		510,051
1920		320,557
1921		455,526
1922		123,552
1923		354,060
1924		410,300
1925		511,238
1926		1,172,697
1927		1,617,249
1928		1,738,664
1929		2,416,017
1930		2,166,575
1931		3,354,600
1932		6,581,815
1933		5,141,000
1934		16,696,510
1935		12,113,904
1936		13,127,706
1937		14,514,091
1938		25,305,986
1939		29,110,387
1940		38,106,306
1941		24,958,640
1942		19,301,365
1943		12,999,532
1944		9,197,460
1945		11,166,308
1946		10,391,767
1947		11,925,652
1948		10,894,872
1949		14,410,075
1950		18,511,285
1951		21,868,832
1952		23,679,040
1953		23,331,939
1954		23,337,596
1955	599,350	25,268,204*
1956	1,949,125	24,763,559*
<b>TOTALS</b>	<b>2,548,475</b>	<b>464,129,990*</b>

\*Game Food Shrubs included in Total Figures.

## TREE DISTRIBUTION BY COUNTY

All Nurseries Year of 1956

County	State Forest	County Forest	*Extension	**Private	Highway	†General	Totals
Adams			46,150	890,775			936,925
Ashland		8,000	14,850	95,500		5,000	123,350
Barron			55,500	103,695			159,195
Bayfield		541,000	16,575	50,600		2,000	610,175
Brown			45,650	77,225		4,400	127,275
Buffalo			26,050	36,050		1,000	63,100
Burnett		314,400	19,800	242,825			577,025
Calumet			4,825	20,850		600	26,275
Chippewa		30,000	66,675	181,000		39,000	316,675
Clark		191,947	68,575	85,650			346,172
Columbia			56,475	259,300		6,550	322,325
Crawford			20,650	13,900			34,550
Dane			32,525	130,500		44,350	207,375
Dodge			21,375	51,125		1,000	73,500
Door			32,725	56,450		9,100	98,275
Douglas	31,200	129,918	34,900	678,575		3,400	877,993
Dunn			116,725	234,165		9,000	359,890
Eau Claire		86,130	72,400	224,375		4,200	387,105
Florence		20,000	2,000	110,600			132,600
Fond du Lac	61,785		10,150	32,525		3,250	107,710
Forest			15,525	248,350			263,875
Grant			16,600	352,750		1,100	370,450
Green			27,750	59,125		12,000	98,875
Green Lake			16,200	87,025		575	103,800
Iowa			37,275	63,550			100,825
Iron		37,000	9,200	69,525			115,725
Jackson		162,150	34,325	274,100		11,000	481,575
Jefferson	5,000		19,950	154,950		13,875	193,775
Juneau		247,400	148,400	393,175			788,975
Kenosha			7,775	22,100		23,000	52,875
Kewaunee			37,850	74,800			112,650
La Crosse			43,250	81,700		20,500	145,450
Lafayette			6,025	15,325		1,200	22,550
Langlade		10,000	37,925	193,175		17,000	258,100
Lincoln		43,200	23,575	461,250			528,025
Manitowoc	4,000		39,100	102,825		500	146,425
Marathon			162,425	384,025	1,200	10,000	557,650
Marinette		376,700	46,950	555,900		6,700	986,250
Marquette			38,725	537,950		9,900	586,575
Milwaukee			7,900	31,025			38,925
Monroe		50,820	83,250	146,350		11,500	291,920
Oconto		5,500	124,975	241,975		20,500	392,950
Oneida	182,480		22,100	773,025		10,700	988,305
Outagamie			26,925	73,175		6,700	106,800

**TREE DISTRIBUTION BY COUNTY—Continued**  
**All Nurseries Year of 1956**

<i>County</i>	<i>State Forest</i>	<i>County Forest</i>	<i>*Extension</i>	<i>**Private</i>	<i>Highway</i>	<i>†General</i>	<i>Totals</i>
Ozaukee			6,725	84,100		5,000	95,825
Pepin			11,475	52,525		1,400	65,400
Pierce			41,750	56,425	3,000	1,000	102,175
Polk		48,300	26,725	112,725		8,500	196,250
Portage			49,175	1,152,650		18,250	1,220,075
Price		33,214	45,650	128,400		500	207,764
Racine			9,725	29,200		225	39,150
Richland			70,775	174,800		1,250	246,825
Rock			25,450	93,850		8,050	127,350
Rusk		22,000	27,575	93,700			143,275
Sauk			92,225	376,775	2,500	31,400	502,900
Sawyer	111,810	47,000	11,700	163,625	2,000	6,000	342,135
Shawano			33,200	577,300		1,300	611,800
Sheboygan	112,325		15,450	69,625		9,025	206,425
St. Croix			21,825	161,800		7,250	190,875
Taylor		15,000	36,000	98,400		2,000	151,400
Trempealeau			67,750	87,200			154,950
Vernon			40,100	20,350		22,500	82,950
Vilas	200,500	132,000	12,000	158,600	21,000		524,100
Walworth	32,000		26,550	52,650		24,350	135,550
Washburn		63,070	14,050	169,350			246,470
Washington			35,000	92,375		9,150	136,525
Waukesha	72,000		13,125	183,325		1,800	270,250
Waupaca			61,900	912,775		20,400	995,075
Waushara			57,525	1,306,975		53,250	1,417,750
Winnebago			7,850	28,925		17,950	54,725
Wood		200,000	33,425	473,725		4,500	711,650
<i>STATES of</i>							
Canada						2,000	2,000
Iowa						2,000	2,000
Kansas				3,000			3,000
Michigan				7,000			7,000
TOTAL	813,100	2,814,749	2,693,250	15,894,985	29,700	568,650	22,814,434
***Game Food							1,949,125
TOTALS	813,100	2,814,749	2,693,250	15,894,985	29,700	568,650	24,763,559

\*Extension—Stock distributed through the State Extension Forester, the State Club Leader, the Agricultural Instructors and the County Agricultural Agents. This column includes Community Forests.

\*\*Private—Individuals purchasing under the Tree Application and Agreement form.

†General—Public hunting grounds, parks, clubs and institutions.

\*\*\*Game Foods—Deciduous shrubs and vines distributed from the Boscobel State Nursery.

**BOSCOBEL STATE NURSERY**  
**GAME FOOD SHRUBS DISTRIBUTED BY SPECIES**  
**Year of 1956**

<i>Species</i>	<i>Extension</i>	<i>Private</i>	<i>Highway</i>	<i>General</i>	<i>Totals</i>
Ash, Mountain.....	450	7,225	500	7,725	15,900
Ash, White.....		100		3,675	3,775
Birch, White.....	100	775		1,725	2,600
Bittersweet, Amn.....				50	50
Blackhaw.....	1,725	10,550		5,600	17,875
Buffaloberry.....	300	2,625		2,325	5,250
Coralberry.....	2,525	25,375		8,050	35,950
Crab, Mixed.....	2,100	17,700		10,375	30,175
Cranberry, Highbush.....	1,750	12,300		9,400	23,450
Dogwood, Silky.....	2,650	30,600		15,125	48,375
Honeysuckle.....		1,000		100	1,100
Lespedeza.....		3,450		9,450	12,900
Lilac.....	500	3,225	400	1,250	5,375
Locust, Black.....	350	27,925		2,725	31,000
Maple, Silver.....	1,425	10,075		3,950	15,450
Ninebark.....	3,200	12,750		4,750	20,700
Plum, American.....				50	50
Redbud.....		50		2,200	2,250
Rose, Multiflora.....	170,400	1,222,675	300	258,150	1,651,525
Thornapple.....	200	6,225		4,125	10,550
Wayfaring Tree.....	1,700	8,025		5,100	14,825
<b>TOTALS.....</b>	<b>189,375</b>	<b>1,402,650</b>	<b>1,200</b>	<b>355,900</b>	<b>1,949,125</b>

**Tree Distribution by Species**

<i>Species</i>	<i>State Forests</i>	<i>County Forests</i>	<i>*Extension</i>	<i>**Private</i>	<i>Highway</i>	<i>***General</i>	<i>Totals</i>
Norway Pine.....	217,260	1,740,679	1,313,925	9,217,910	3,200	177,875	12,670,849
White Pine.....	222,355	285,770	506,675	1,870,300	3,700	88,950	2,977,750
Jack Pine.....	204,150	697,900	196,100	716,800	18,000	69,925	1,902,875
Norway Spruce.....	39,950		3,350	881,275	3,000	34,175	961,750
White Spruce.....	56,710	90,400	522,375	2,037,900	1,200	102,275	2,810,860
Balsam Fir.....	500		25	829,950		5,900	836,375
White Cedar.....	36,195		55,575	222,825		67,175	381,770
Black Locust.....			15,925	35,775		1,375	53,075
American Elm.....	50		42,975	12,950	300	10,625	66,900
White Ash.....	35,930		36,325	45,000	300	8,075	125,630
Yellow Birch.....				24,300		2,300	26,600
<b>Total.....</b>	<b>813,100</b>	<b>2,814,749</b>	<b>2,693,250</b>	<b>15,894,985</b>	<b>29,700</b>	<b>568,650</b>	<b>22,814,434</b>
<b>***Game Foods.....</b>							<b>1,949,125</b>
<b>TOTALS.....</b>	<b>813,100</b>	<b>2,814,749</b>	<b>2,693,250</b>	<b>15,894,985</b>	<b>29,700</b>	<b>568,650</b>	<b>24,763,559</b>

\*Extension stock distributed through the State Extension Forester, the State Club Leader, the Agricultural Instructors and the County Agricultural Agents. This column includes Community Forests.

\*\*Private—Individuals purchasing under the Tree Application and Agreement form.

\*\*\*General—Public Hunting Grounds, Parks, Clubs and Institutions.

\*\*\*\*Game Foods—Deciduous shrubs and vines distributed from the Boscobel State Nursery.



PRODUCTION OF NURSERIES BY SPECIES

[ 70 ]

<i>Species</i>	<i>Griffith State</i>	<i>Trout Lake State</i>	<i>Gordon State</i>	<i>Hayward State</i>	<i>Hugo Sauer State</i>	<i>Boscobel State</i>	<i>Clark County</i>	<i>Marathon County</i>	<i>Totals</i>
Norway Pine.....	6,840,500	772,075	1,069,790	1,515,127	2,067,225	138,495	227,637	40,000	12,670,849
White Pine.....	1,965,920	54,200	222,815	333,570	227,945	97,300	76,000	-----	2,977,750
Norway Spruce.....	571,950	39,475	110,400	68,300	113,225	58,400	-----	-----	961,750
White Spruce.....	1,155,045	185,775	311,875	397,240	718,475	42,450	-----	-----	2,810,860
Jack Pine.....	603,500	128,725	248,175	642,425	262,225	17,825	-----	-----	1,902,875
Balsam Fir.....	302,575	161,850	49,800	80,725	240,600	825	-----	-----	836,375
White Cedar.....	240,745	11,575	21,275	35,225	35,375	37,575	-----	-----	381,770
Black Locust.....	39,175	825	5,925	4,600	1,300	1,250	-----	-----	53,075
American Elm.....	48,825	1,700	4,775	6,000	4,150	1,450	-----	-----	66,900
White Ash.....	100,180	2,100	9,125	7,575	3,800	2,850	-----	-----	125,630
Yellow Birch.....	26,600	-----	-----	-----	-----	-----	-----	-----	26,600
Game Foods.....	-----	-----	-----	-----	-----	1,949,125	-----	-----	1,949,125
<b>TOTALS.....</b>	<b>11,895,015</b>	<b>1,358,300</b>	<b>2,053,955</b>	<b>3,090,787</b>	<b>3,674,320</b>	<b>2,347,545</b>	<b>303,637</b>	<b>40,000</b>	<b>24,763,559</b>

## Forest Management

### FOREST CROP LAW

The Forest Crop Law has operated successfully in Wisconsin for more than 25 years. In a quarter of a century of intensive forestry practice, many acres of cut-over land have been made productive. As of June 30, 1956, there was a total of 2,507,150 acres entered under this law, an increase of 62,452 acres during the past biennium. The acreage entered is about the same as the previous biennium.

During this period there was an increase of 53,908 acres of privately-owned lands under the Forest Crop Law, making a total of 333,536 acres entered as of June 30, 1956. Of this total, 23,303 acres are special classification, or lands located outside of the boundaries of established forest protection districts. There is an indication that the owners of small tracts of lands have been availing themselves of the tax benefits of this law as the special classification acreage increased by 7,277 acres during the biennium.

Enactment of the Forest Crop Law has aided many industries and private land owners to produce recurring crops of wood products. The state has maintained its position of leadership in forestry through a program of wise land use. Many industries are dependent upon the practice of forestry. Wisconsin has 16,000,000 acres of commercial forest lands, or about half of our total land area. This land represents a vast resource to provide raw materials to the many wood-using industries of the state.

In addition to providing employment in the woods and in the factories for thousands of workers, the forest crop lands provide a large acreage of public hunting grounds. All lands entered under the Forest Crop Law are open to the public for hunting and fishing.

### WOODLAND TAX LAW

Since enactment of the Woodland Tax Law by the 1953 Legislature, there have been 1,344 applications approved for the entry of lands in 465 towns in 67 counties with a total of 29,547 acres.

This law applies mostly to the agricultural areas of the state. It provides that the owner of a tract of land containing less than 40 acres may register his land with the state and receive the benefit of a lower and more equitable tax rate. He will also be given technical advice and assistance by the forester to make his woodland more productive.

These small woodlands provide a source of products to many wood-using industries and also benefit many conservation projects from wildlife habitat improvement to soil preservation. The added cover in these areas will improve the natural habitat for wildlife and help to stabilize watersheds by retarding rapid water runoff. There are 5,500,000 acres of farm woodlands in Wisconsin. This law gives all woodland owners an opportunity to take

FOREST MANAGEMENT—FOREST CROP LANDS BY COUNTIES

July 1, 1954—June 30, 1956

County	Private Entries				County Entries					Total Forest Crop Land	
	Prior to July 1, 1954	1955	1956	With-drawn	Net Private Lands	Prior to July 1, 1954	1955	1956	With-drawn		Net County Lands
Adams	1,851.27	80.00	285.60		2,216.87						2,216.87
Ashland	1,397.51		80.00		1,477.51	39,106.02	40.00		760.00	38,386.02	39,863.53
Barron	771.52	400.00	352.50		1,524.02	9,480.51	160.00			9,760.51	11,284.53
Bayfield	8,421.02	520.00	880.00		9,821.02	161,756.43		868.52		162,624.95	172,445.97
Brown		40.00			40.00						40.00
Buffalo	80.00	130.00			210.00						210.00
Burnett	2,011.20				2,011.20	106,109.06	1,240.24		5,696.56	101,652.74	103,663.94
Calumet	80.00				80.00						80.00
Chippewa	2,049.10	80.00	120.00	80.00	2,169.10	23,177.80	80.00	522.33	40.00	23,740.13	25,909.23
Clark	238.63		99.40		338.03	129,416.32		480.00		129,896.32	130,234.35
Crawford		184.76	65.00		249.76						249.76
Dodge			43.30		43.30						43.30
Door	2,030.23	40.00	297.34	36.40	2,331.17						2,331.17
Douglas	36,462.98	1,453.73	22,396.13	60.00	60,252.84	241,741.62	1,947.22	2,107.21	1,023.15	244,772.90	305,025.74
Dunn	2,579.33	350.00	940.00		3,869.33						3,869.33
Eau Claire	800.00	246.80	140.00		1,186.80	42,048.56	311.55	240.00		42,600.11	43,786.91
Florence	44,101.61	317.50	80.00	3.82	44,495.29	39,373.50			3,378.24	35,995.26	80,490.55
Forest	30,753.67	6,754.73	40.00	100.00	37,448.40	10,695.07				10,695.07	48,143.47
Grant	911.44		220.00		1,131.44						1,131.44
Iowa			160.00		160.00						160.00
Iron	4,680.00		4,639.65		9,319.65	173,508.99	120.00		1,414.50	172,214.49	181,534.14
Jackson	240.00	80.00			320.00	112,216.45	1,080.00	40.00		113,336.45	113,656.45
Jefferson			50.00		50.00						50.00
Juneau	396.51	40.00	80.00		516.51	15,163.19	160.00			15,323.19	15,839.70
Kewaunee	78.47	40.00	270.69		389.16						389.16
La Crosse	160.00	120.00			280.00						280.00
Lafayette	51.67				51.67						51.67
Langlade	8,662.54		1,759.93	560.00	9,862.47	113,062.25		6,560.00	81.00	119,541.25	129,403.72
Lincoln	29,645.36		160.00		29,805.36	95,928.87	560.00		800.00	95,688.87	125,494.23
Manitowoc	403.50		470.00		873.50						873.50
Marathon	2,960.38	611.17	325.87	80.00	3,817.42						3,817.42
Marinette	898.00	177.92	40.00		1,115.92	227,533.41	320.00	677.20	6,005.48	222,525.13	223,641.05

[ 72 ]

**FOREST MANAGEMENT—FOREST CROP LANDS BY COUNTIES—Continued**

**July 1, 1954—June 30, 1956**

[ 73 ]

County	Private Entries					County Entries					Total Forest Crop Land
	Prior to July 1, 1954	1955	1956	Withdrawn	Net Private Lands	Prior to July 1, 1954	1955	1956	Withdrawn	Net County Lands	
Marquette	160.00		55.00		215.00						215.00
Monroe	134.00	40.00	40.00		214.00	2,898.48				2,898.48	3,112.48
Oconto	693.46	458.20	2,107.07		3,258.73	39,495.07	280.00	327.91		40,102.98	43,361.71
Oneida	61,912.29	720.00	200.00	40.00	62,792.29	79,996.90	280.00	560.00	160.00	80,676.90	143,469.19
Outagamie	440.00	40.00			480.00						480.00
Ozaukee	54.60				54.60						54.60
Pepin		311.48			311.48						311.48
Pierce	265.00	260.00	200.00		725.00						725.00
Polk	2,129.21	40.00			2,169.21	9,629.49	40.00			9,669.49	11,838.70
Portage	2,762.81	594.14	400.00	80.00	3,676.95						3,676.95
Price	2,372.53	160.00	396.23	4.47	2,924.29	84,657.07	120.00	393.95	40.00	85,131.02	88,055.31
Rusk	1,264.37	200.00	219.00		1,683.37	81,190.15	353.53	317.15		81,860.83	83,544.20
St. Croix	100.00	19.00	40.00		159.00						159.00
Sauk	80.00				80.00						80.00
Sawyer	928.37				928.37	107,461.93	120.00	2,285.68		109,867.61	110,795.98
Shawano	6,335.12	320.00	304.00		6,959.12						6,959.12
Sheboygan	41.50		40.00		81.50						81.50
Taylor	2,231.57	560.00	245.63		3,037.20	16,156.16			200.00	15,956.16	18,993.36
Trempealeau		80.00	160.00		240.00						240.00
Vernon	150.00	200.00	140.00		490.00						490.00
Vilas	2,063.69				2,063.69	31,525.25	38.75		40.00	31,524.00	33,587.69
Washburn	1,432.20	200.00	224.13		1,856.33	133,478.78	5,329.95	923.06	229.10	139,502.69	141,359.02
Waupaca	700.00	40.00	40.00		780.00						780.00
Waushara	1,339.00	179.63	40.00		1,558.63						1,558.63
Wood	9,311.16	47.26		18.48	9,339.94	37,582.54	87.58			37,670.12	47,010.06
<b>TOTALS</b>	<b>279,616.82</b>	<b>16,136.32</b>	<b>38,846.47</b>	<b>1,063.17</b>	<b>333,536.44</b>	<b>2,164,389.87</b>	<b>12,668.82</b>	<b>16,423.01</b>	<b>19,868.03</b>	<b>2,173,613.67</b>	<b>2,507,150.11</b>

Note: Included in the withdrawal of county-owned lands is a total of 14,960.25 acres on which withdrawal was requested by the Conservation Department. These withdrawn lands have been leased to the department and will be used in the grouse management program by the Game Management Division.

There is also included 2,174.50 acres in the county withdrawals which have been conveyed to mining corporations for development of taconite iron ore mining in Wisconsin.

advantage of its tax benefits and an incentive for gradual improvement in woodland management.

To register lands under this law, an owner may file an application with the Conservation Department showing the location of his land and a pledge to manage the woods for good timber production. The entry is made for 10 years and the owner pays a fixed annual tax of 20 cents per acre.

### COUNTY FORESTS

The county forests of Wisconsin, conceived with the passage of the Forest Crop Law, represent the largest county-owned forest program in the United States to date.

Under the provisions of the forest laws, the counties receive two annual state aid payments: (1) the forestry aid to the county of 10¢ per acre per year of land entered under the law for development of county forest, and (2) a like payment of 10¢ per acre per year to the civil towns in which the land is located for distribution as follows: 40% for civil town expenses, 40% to the school district in which the land is located, and 20% to the county general fund. To reimburse the state for these payments, the state collects a severance tax of 50% of the stumpage value of timber cut from the county forests based on the severance tax schedule as established annually by the Conservation Commission following public hearings through-



White pine telephone poles produced in a thinning operation on a county forest.

out the state. The productivity of some county forests has now reached the point where the severance tax collected by the state exceeds the state aid payments.

The twenty-seven county forests originating from tax delinquent lands now contain 2,173,613.67 acres, a net increase of 9,223.80 acres during the biennium. *This extensive acreage constitutes the largest block of forest land open to public hunting, fishing and recreation within the state.* Acreage expansion within recent years has been primarily by purchase and exchange to improve blocking of the forest ownership; extension of present forest boundaries is now the exception rather than the rule. Chart A indicates the total acreage of county forest entered under the Forest Crop Law by years, and reflects the decrease in entry following the transition from boundary extension to blocking.

Administration of the county forests is a joint forestry enterprise between the counties and the State Conservation Commission. In this agreement the counties supply the land and the local administration and supervision through the designated committees of the county boards and county forest administrators. In return, the state furnishes the above-mentioned aid payments and, in addition, the technical advice and assistance of the district foresters. These same foresters also assist the counties in the management of county lands not entered under the Forest Crop Law and provide technical assistance to private woodland owners.

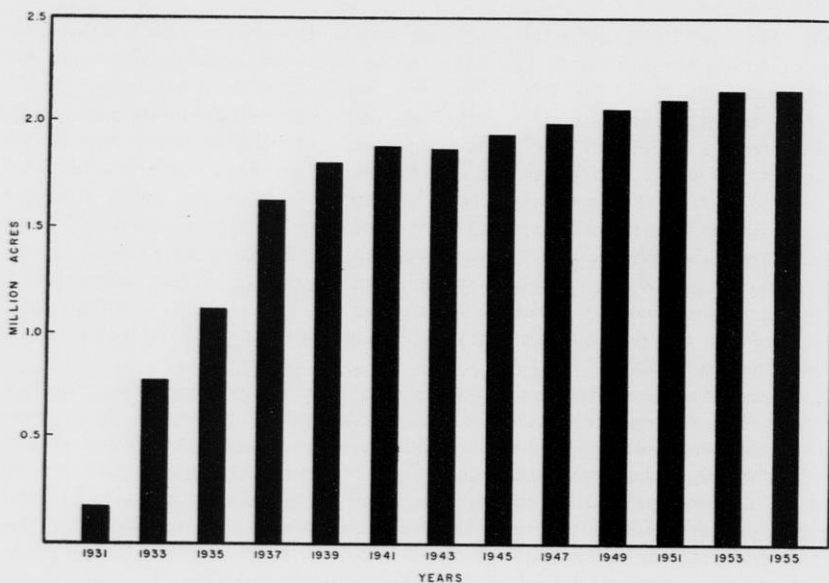
The importance of the county forest program to the community and to the wood-using industry has increased considerably during the past twenty-five years. The increased revenue to the counties from timber sales is looked upon by county officials as eventually easing the tax burden on the local taxpayer. Hundreds of families are now dependent for their livelihood upon employment in the forest; many farmers supplement their farm income through small timber sales.

With the expansion of forest industries in Wisconsin, the county forests have assumed greater importance in supplying these industries with a continuous source of raw material. The state and counties recognize their responsibility to industry and are meeting this obligation with intensified management of the county forests.

The forest management activities of the county forests have undergone a change throughout the years. Following establishment of the forests, activities such as tree planting, firebreak construction, and surveying received the greatest attention; however, as the forests grew more productive, as better protection prevailed, and as the majority of the vast denuded areas were planted, management then focused its attention on activities such as timber sales, access road construction, cultural cutting, insect and disease control, special use area development and game management.

The most important single activity on the county forests is the sale and harvest of timber stumpage. Chart B indicates the trend of the steadily increasing production from county forests. The volume of timber cut during this biennium represents an increase of 17% over the previous biennium. Table 1 indicates a biennial harvest of 8,487,887 board feet of sawlogs, 200,556 cords of pulpwood and chemical wood, 57,015 Christmas trees, 90,245 posts, 2,480 poles, and 162 tie cuts. If this volume were reduced to a cord-





**Acreage of county forests, 1931-1955.**

wood basis, it would form a pile of wood four feet high and eight feet wide extending from Prairie du Chien on the Mississippi River to Milwaukee. In addition, the Christmas trees cut during the biennium would supply all the families in the city of Madison for the same period.

The above volumes were cut from 1,379 sales and resulted in a gross income of \$871,967.89 to the counties during the biennium. Although volume increased 17% over the last biennium, value increased 31% during the same period. This differential increase is indicative of the trend which exists whereby the value of the county forests has increased steadily throughout the quarter century. (Chart B reflects this.)

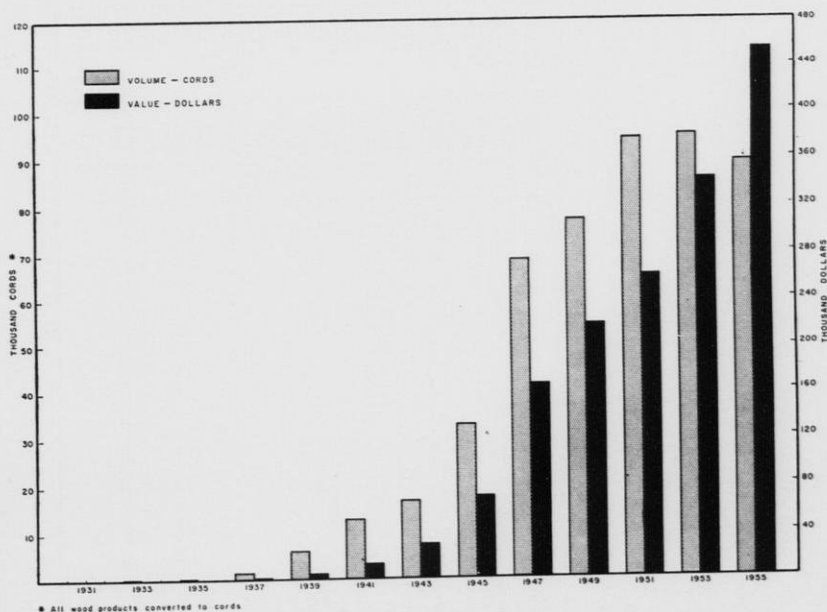
The benefits of timber harvest operations on the county forests to game management are of concern to the entire public. Each timber sale affords increased browse to the deer herd in the form of felled tops and regeneration where openings are created. In cooperation with the Game Management Division, the district foresters and county administrators place special emphasis on the sale of timber in areas where, during periods of adverse weather, critical feed conditions occur.

Reforestation of the major part of the extensive denuded areas on the county forests is essentially completed. Tree planting activities are now becoming centered on the more costly and time-consuming tasks of planting scattered small openings, converting low-quality and poor-growing stands to a more desirable species and improving the stocking of understocked stands. As a result of this condition, the trend in recent years is toward a decrease in the acreage planted; 5,400 acres were planted during the biennium which represents a decrease of 15% from the last biennium.

Cultural work consists of tree pruning, weedings, thinnings, release and improvement cuttings made both in natural stands and plantations. While this type of work very often represents an investment of funds, it is expected to pay off in future harvests by greater yields and higher quality products. A growing forest requires more and more care, and as planting assumes less importance, cultural work will assume greater importance. During the past biennium, 2,248 acres on the county forests received some sort of cultural treatment—an increase of 25% over the preceding two-year period.

Construction of access roads has become a major activity in many counties. These roads have a threefold purpose of providing access to remote areas for hunters, fishermen and other users of the forest, of providing entrance in the event of fire, and of facilitating the harvest of mature timber. The development of parks and campsites for the use of the public has also become an important activity on the county forests. Fifty-seven such parks and campsites have been developed and are being maintained on the county forests. Although forest crops are the principal product, committees, administrators, and the Conservation Commission are aware of the multiplicity of uses that the county forests afford and are encouraging such uses.

During the biennium, technological industrial progress has accounted for many changes in wood utilization and in the management of the county forests. For example, the accelerated use of dense hardwoods and low-quality oak stands in the paper and charcoal industries has resulted in greater demands on the forests. Increased use of these woods has also



Volumes and values of timber sales on county forests by years.

## SUMMARY OF PLANTING AND CULTURAL CUTTING ON COUNTY FORESTS

July 1, 1954 to June 30, 1956

County	New Planting			Replanting			Cultural Cutting		
	Acres			Acres			Acres		
	Prior to 1954-55	1954-56	Total to Date	Prior to 1954-55	1954-56	Total to Date	Prior to 1954-55	1954-56	Total to Date
Ashland.....	484	13	497	55	6	61			
Barron.....	97		97				12		12
Bayfield.....	8,221	1,037	9,258	958	40	998	2,302	70	2,372
Burnett.....	6,400	399	6,799	2,954	213	3,167	3,242		3,242
Chippewa.....	362	80	442	28		28			
Clark.....	6,058	365	6,423	660		660	190		190
Douglas.....	7,021	294	7,315	992		992	55	230	285
Eau Claire.....	2,226	327	2,553	262		262	6	75	81
Florence.....	2,284	53	2,337	120	7	127	50		50
Forest.....	484	8	492	9	5	14		6	6
Iron.....	4,231	71	4,302	636	4	640	1,024		1,024
Jackson.....	6,660	679	7,339	972		972	1,120	370	1,490
Juneau.....	3,490	388	3,878	245		245	255		255
Langlade.....	4,793	14	4,807	1,035		1,035	1,092		1,092
Lincoln.....	3,037	58	3,095	153	8	161	194	391	585
Marinette.....	12,993	500	13,493	3,099	80	3,179	5,112	470	5,582
Monroe.....	163	91	254	120		120		10	10
Oconto.....	7,109	79	7,188	925		925	2,304	78	2,382
Oneida.....	1,795	23	1,818	1,425		1,425	1,217		1,217
Polk.....	640	61	701	83	87	170	33		33
Price.....	1,160	49	1,209	49		49	272	31	303
Rusk.....	986	48	1,034	378		378	2,974	20	2,994
Sawyer.....	4,035	115	4,150	1,829		1,829	4,289	310	4,599
Taylor.....	376	36	412	4		4	68		68
Vilas.....	2,555	256	2,811	6		6	158		158
Washburn.....	1,648	140	1,788	443	16	459	1,493	187	1,680
Wood.....	4,188	216	4,404	515		515	493		493
<b>Totals.....</b>	<b>93,496</b>	<b>5,400</b>	<b>98,896</b>	<b>17,955</b>	<b>466</b>	<b>18,421</b>	<b>27,955</b>	<b>2,248</b>	<b>30,203</b>

## SUMMARY OF TIMBER SALES ON COUNTY FORESTS

July 1, 1954 to June 30, 1956

[ 79 ]

County	No. of Comp. Sales	Products and Volumes Cut										Total Sales Value	
		Logs—Board Feet		Pulpwood and Miscellaneous Bolts—Cords						Piece Products			
		Conifers	Hardwoods	Pine	Spruce	Balsam	Other Conifers	Aspen	Other Hardwoods	Christ-mas Trees	Posts		Ties and Poles
Ashland	82	7,670	920,400		239	1,852	1,280	1,174	27		230		\$ 35,044.55
Barron	7	14,540	232,760					306					5,565.61
Bayfield	47	144,620	635,520	1,552	194	1,021	569	14,133	37	583	3,845	193	65,808.99
Burnett	60			5,187	3		88	525			3,024	323	30,388.42
Chippewa	42	60	17,230					1,519	3				3,417.29
Clark	47	10,860	95,820	484	71		3	737	36	20,552			18,776.05
Douglas	70	73,360	439,424	1,163	1,269	1,933	86	23,541	16	600	16,137	1,040	78,966.78
Eau Claire	43	10,560	10,250	2,918			38	714	54	1,320			18,268.97
Forest	0												
Florence	29	27,740	19,840	1,197	227	444	195	4,012	55	857	3,006	99	18,673.10
Iron	79	66,680	1,085,918		1,034	2,386	1,988	4,388	581			162	59,228.32
Jackson	58	22,851		8,484			109	393	1,904	3,834			61,801.90
Juneau	20	1,673		407			3	796	3			530	4,927.58
Langlade	41	52,940	609,040	74	233	832	181	4,469	92	9,726	1,314		56,067.01
Lincoln	31	5,440	6,680		47	239	237	1,823	27		4,044		8,102.94
Marinette	72	259,587	152,710	3,925	1,395	2,253	206	19,958	590	1,273	20,295	236	117,011.51
Monroe	3	960		29									168.55
Oconto	45	36,270	7,075	27	71	76	16	3,195	172	1,620	16,415	44	11,239.52
Oneida	75	47,700	112,320	2	249	768	1,510	7,676	1,069	289	600		35,242.26
Polk	8			1,131				15					4,973.23
Price	130	16,180	102,480		408	437	1,317	23,618	2,198			15	73,334.43
Rusk	131	121,270	1,563,240			4	5	7,200	132	87	4,544		60,893.74
Sawyer	77	40,190	661,680			66	128	932	1,801	3,793	15,898		20,457.58
Taylor	19	7,570	7,950	6	15	47	25	491	122	50	509		1,766.30
Vilas	13	2,420		1,348		4		844	47				8,732.59
Washburn	125	99,770	617,550	5,954	216	54	701	6,202	8	3,552			63,977.74
Wood	25	4,310	114,779	307				501	1,453	5,728	384		9,532.93
<b>Totals</b>	<b>1,379</b>	<b>1,075,221</b>	<b>7,412,666</b>	<b>34,195</b>	<b>5,737</b>	<b>12,478</b>	<b>9,486</b>	<b>129,238</b>	<b>9,422</b>	<b>57,015</b>	<b>90,245</b>	<b>2,642</b>	<b>\$871,967.89</b>

afforded an opportunity for counties to make profitable thinnings and improvement cuttings in valuable hardwood stands. On the other hand, low-quality hardwood stands can be cut and converted to better species at a profit.

Several new forestry techniques were initiated on county forests the past two years. Chemicals for debarking hardwoods on the stump have lengthened the peeling season and will provide mills with more peeled wood. The use of herbicides applied as aerial sprays has made it possible to release many more acres of plantations from brush and scrub tree growth than by the hand methods and at a much lower cost. Many plantations established during the early years of the program have now reached the size where they are being pruned to increase tree quality.

These industrial advances and requirements, new forestry techniques, the increasing demand for recreational facilities and for hunting and fishing require changes in management procedure. In order that the county forests may meet these demands and obligations, the Forest Management Division is in the process of altering and intensifying county forest management. Individual county management plans, incorporating recent forest inventory data, are being prepared by the division that will effect greater forest production and use. The coming biennium will witness the introduction of these plans and the benefits which will accrue to the people of the state.

#### SMALL WOODLAND PROJECT SERVICES

The small woodlands management assistance services offered to the private woodland owner has shown notable progress in establishing better forest management on the privately owned woodlands of the state. By the offering of such services, it is hoped that the improvement, maintenance and the use of sound forest management practices can be initiated on our private woodlands in a democratic way.

Faced with a rapidly expanding population and continuing increases in the per capita consumption of wood products, it is imperative that every forest acre contribute its full measure to fill these needs, present and future. Through initiating and intensifying the management of the small woodlands in the state, the aggregate increase in wood production can keep pace with our increasing demands. Not only does the proper management of a forest result in long-term benefits, but considerable immediate returns accrue to the landowner and the wood-using industries who are dependent on the raw materials from the forest to keep mills operating.

During the biennium sixteen small woodland projects were in an active status; three projects were inactivated when personnel left the service. District foresters assigned to the projects advised and assisted private woodland owners with problems related to the management of their forest lands. These services included the analysis of site, stocking, volume, quality and growth of the woodland for management recommendations and planning; marking and marketing of timber; site analysis and plantation layout for reforestation programs; examination of lands for entry under either the Forest Crop or Woodland Tax Law; and other forest management serv-

ices. Under the Cooperative Forest Management Act of 1950, the U. S. Forest Service cooperated with the department in supporting this program, in part, with federal aids and technical advice.

A review of the Statistical Analysis (Table III) will show that during the biennium 5,365 woodland owners were given management advice or assistance involving a total of 157,141 acres. The assistance rendered involved marking for immediate harvest 12,143,800 board feet and 5,701 cords of timber from 15,989 acres; and the inventorying of 48,885,100 board feet and 2,400 cords of timber on 9,914 acres for the development of intensive management plans. The inventorying and marking of the timber is a technical detail and is generally carried out by or under the supervision of the forester.

Follow-up calls to the woodland owners assisted showed that 3,841 of the landowners receiving project services had instituted the recommended practices on their woodlands. This took the form of commercial timber harvest



Photo by the Sheboygan Press

Decking a few of the 9,088,300 board feet of saw and veneer grade logs harvested under the small woodlands management program.



on 9,317 acres and forest improvement work on 3,197 acres for a combined harvest of 9,088,300 board feet of saw and veneer logs; 5,290 cords of pulpwood; 33,805 railroad ties; 4,720 cords of fuelwood; and 31,465 fence posts. Converting the above volumes to board feet measure the total would be 15,024,900 board feet. Recommendations were made for the marketing of an additional 3,429,700 board feet of timber, for a total of 18,454,600 board feet of timber harvested under the small woodlands program.

In addition to the harvesting of forest products and the improvement of the forest, the landowners reported above reforested 6,329 acres of land which was better suited to the growing of trees than other uses.

Of the 157,141 acres on which forest management recommendations were made, protection from fire and grazing was initiated or intensified on 83,837 acres for better forest management (and of increased benefits to wildlife). Much of the acreage not listed as protected was protected prior to the service call, hence no credit is taken for this acreage as an accomplishment. The protection of small woodlands from fire and grazing domestic animals is of direct benefit to wildlife and as a result, indirectly, to sportsmen generally. Good small woodland management will result in better habitat for many small game species. The wide distribution of the small woodlands within short distances from centers of populations is a factor in the recreational resources available to these people.

The small woodlands program is predicated upon the consideration of sound financial, as well as silvical, management of the forest. Estimated returns to woodland owners from timber harvested as stumpage totaled \$327,689.34. Those that invested some of their own labor in doing the harvesting earned an additional \$242,089.74, making a gross estimated income of \$569,779.08 which accrued to cooperating landowners during the biennium.

As forest products operators are an integral part of any forest management program, due consideration must be given to their needs and problems. Through improved harvesting and milling practices, present and future timber supplies can be extended to meet increasing needs.

Advice and assistance with logging, milling, and marketing of lumber and other forest products was given to 396 forest products operators during the biennium. The results of these efforts are becoming more evident daily, by greater acceptance of proper forest management practices by the operator and a better quality and quantity return in wood products.

Foresters assigned to the county forest program also assist small woodland owners in the northern districts with management problems. The rendering of such services accounted for ten per cent of the time expended by foresters on the county forest program. Their efforts have contributed substantially to the improvement of small woodland management in northern Wisconsin.

The Forest Management Division is responsible for the technical phases of the Agricultural Conservation Program tree planting and forest improvement practices in Wisconsin. This requires the determination of need and feasibility and the technical recommendations for carrying out these forest improvement practices. Upon completion of the project by the landowner, certification of performance must be made. This program has been most

effective in instituting intermediate forest management practices that normally do not result in immediate financial return. Expansion of this program is anticipated.

Promotion of the proper forest management concept requires continuous educational effort. Foresters assigned to the small woodlands program have during one year participated in 61 woodland management and tree planting demonstrations; 54 conservation tours; 107 talks to adult groups; 170 talks to schools and youth groups; 14 conservation camps; prepared and presented 38 radio and television programs; and attended 331 cooperative agency meetings to discuss and develop new forestry programs. Many of the meetings were in cooperation with the state extension foresters, county extension offices, vocational agricultural instructors, school authorities and others. Not included in the above are the many meetings with the conservation and agricultural committees of the county boards to assist them in developing forestry programs for their respective counties.

The development of the watershed concept of soil, water and forest management has been widely accepted in the state. Better forest management is



**A forester inspects a farm woodlot to determine that the owner has carried out timber stand improvement in accord with the Agricultural Conservation Program.**

in many instances a vital practice in assuring the success of the watershed. Foresters participate in the planning, surveying, and implementation of the program in the districts.

All foresters participate in insect and disease control program as observers and reporters, with many assigned to control duties when the need arises. Outside of the established forest protection districts of the state, foresters are responsible for the departments cooperative forest fire control program.

Advice and assistance is given to 4-H, FFA, school and community foresters, boy scouts, girl scouts, and other quasi-public organizations who participate in the free tree distribution program. In cooperation with the state extension forester, a new procedure has been developed to strengthen the free tree program for greater benefits to the state.

Assistance is rendered to other divisions of the department on forestry matters. Non-technical assistance is rendered to other divisions when needed, such as to Law Enforcement Division during deer seasons and other peak periods; high school program of the Information and Education Division and others.

### Forest Management Division

#### COOPERATIVE FOREST MANAGEMENT PROJECT SERVICES

<i>Item</i>	<i>1954-55</i>	<i>1955-56</i>	<i>Total</i>
Number of Projects—full time.....	13	16	
—part time.....	2	3	
Owners Given Assistance—number.....	2,347	3,018	5,365
Woodland involved—acres.....	72,879	84,262	157,141
Timber marked—MBF.....	5,186.6	6,957.2	12,143.8
Timber marked—cords.....	2,376	3,324.9	5,700.9
Timber marked—acres.....	7,583.5	8,405.6	15,989.1
Timber Inventoried for Management—MBF.....	24,744.9	24,137.2	48,885.1
—cords.....	1,159	1,241	2,400
—acres.....	5,755	4,159	9,914
Woodlands Using Improved Practices—number.....	1,565	2,276	3,841
Commercial timber cut —acres.....	4,115	5,202.5	9,317.5
Forest improvement cut—acres.....	775	2,422.1	3,197.1
Land planted —acres.....	2,887.8	3,441.2	6,329.0
Woodland protected —acres.....	38,745.3	45,092.6	83,837.9
Products Harvested Using Improved Practices:			
Sawlogs, veneer, etc.—MBF.....	3,961.4	5,126.9	9,088.3
Pulpwood —cords.....	2,595	2,695	5,290
Ties —number.....	11,632	22,173	33,805
Fuel wood —cords.....	1,296	2,424	4,720
Posts —number.....	10,770	20,695	31,465
Total—converted to MBF.....	6,491.7	8,533.2	15,024.9
Products Harvested—Marketing Assist. only—MBF..	1,512.6	1,917.2	3,429.7
Total Products Harvested—MBF.....	8,004.3	10,450.3	18,454.6
Stumpage Returns to Owner—estimated.....	\$136,697.50	\$190,991.84	\$327,689.34
Gross Returns to Owner—estimated.....	\$245,262.90	\$324,516.18	\$569,779.08
Forest Products Operators Advised.....	202	196	396

## FOREST PEST CONTROL

The enactment of the Forest Pest Control Law during the biennium gave Wisconsin's forest pest control program a firm foundation to grow on. Section 26.30, Chapter 250, Wisconsin Statutes of 1955, delegates responsibility for the control of forest pests to the Conservation Department and provides the legal authority and procedure for handling practically any forest pest control problem that is likely to arise. How the provisions of this act are interpreted and how it is administered will determine how effective it will be.

The Forest Pest Control Steering Committee, which is advisory in nature, was established by the commission in August, 1955, to consider various matters which arise regarding the investigation and control of forest pests under the new law, and makes its recommendations to the Conservation Department. This committee consists of seven members; one from the Department of Agriculture, two from industry, two from the University of Wisconsin, and two from the department. The terms of the members are staggered and the appointments to the committee run for two years.

The task of keeping abreast of the insect problems in the state has been made easier by the organization of the pest control section on an area basis. Five areas, corresponding with the forestry and state park management areas, and with those of fish management, game management, and law enforcement, have been set up. Each of the areas will eventually be staffed with an area entomologist and an assistant. At present area entomologists are stationed at Spooner in the Northwest Area, Antigo in the Northeast Area, and Oshkosh in the East Central Area. A supervisor of forest pest control is stationed at Nevin Hatchery in the Southern Area. Area headquarters at Black River Falls and Madison will be staffed as personnel are available.

Standardized survey procedures for the appraisal of infestations of certain insects and in some cases the damage inflicted by them have been approved by the Lake States Forest Insect Survey Committee. Among those for which survey procedures have been approved are the jack-pine budworm, red-headed pine sawfly, forest tent caterpillar, pine tortoise scale, larch sawfly, Saratoga spittlebug, and the spruce budworm. Survey techniques for other forest pests are being developed. Standardization of survey techniques will make it possible to compare directly the infestations and damage being done in different parts of the Lake States Region by any particular pest. It will make it possible to coordinate efforts by the states in the region in handling pest control problems which do not necessarily stop at state lines.

Training schools for pest observers were held at Eagle River in March of 1955 and 1956. Faculty members from the University departments of entomology and plant pathology, members of the Lake States Experiment Station staff and Regional Office, the Division of Plant Industry of the State Department of Agriculture, and Trees for Tomorrow cooperated with department entomologists in the training program. Approximately 100 men from the department attended the short courses and are now doing an excellent job working with the department entomologists in pest detection and control.

Several new pieces of equipment have been acquired by the pest control section. Among these are knapsack sprayers, portable pumpers for handling insecticides on spray jobs, and two-way radios. The pumpers and radios proved their worth on the jack-pine budworm control job in Douglas County.

Wisconsin was host to the Central International Forest Insects and Disease Conference held at Wisconsin Rapids on October 6 to 8, 1954. The conference was attended by forest entomologists, pathologists, and foresters from the lake states and Canada. The group meets yearly to discuss and disseminate information on forest insect and disease research.



**This jack pine was defoliated by jack pine budworm. Such damage has occurred over thousands of acres in northwestern Wisconsin.**

Various insects have required application of direct control measures in an attempt to eradicate them or to reduce their numbers to a point where they would not cause economic losses. One of these, the European pine sawfly, was found for the first time in central Wisconsin in 1954. This insect which is a threat to all our pines, both in plantations and forests, was attacked by a three way control program in which the Department of Agriculture, the University and the Conservation Department cooperated. The infested area, consisting of approximately 700 acres near Arkdale in Adams County, was sprayed from the air with DDT and later with a virus disease of the sawflies. These sprays were followed up with a release of parasites of the insect. It appears that the control program was a complete success.

The jack-pine budworm outbreak continued to increase in intensity in



some areas of the state. Instead of collapsing as it had in the Washburn County infestation of 1954 the budworm population remained high and the area of medium to heavy defoliation increased from approximately 62,000 acres in 1955 to almost 200,000 acres in 1956 in the northwest area which included Polk, Burnett, Washburn, Douglas, and Bayfield Counties. The Marinette County infestation which covered 13,000 acres in 1955 started to decline and with the removal of many susceptible trees in the towns of Stevenson and Silver Cliff it was not found necessary to apply any other direct control measures. The infestation in the northwest area, on the other hand, did not follow the pattern of build up and decline as had been experienced with other infestations in Wisconsin and elsewhere. Studies of the different stages of the insect and its parasites and predators were initiated in cooperation with the University and industry. Plots were set up throughout the jack-pine type from which collections were made of overwintering larvae, late instar larvae, pupae, and eggs. From these studies it is hoped that information will be obtained on the behavior of budworm populations which can be used to determine if, when, and where direct control measures will have to be applied.

An experimental control project was set up in Douglas County where the infestation was most severe. Approximately 6,690 acres of various sizes of jack-pine in various stages of defoliation were sprayed with DDT in an attempt to determine the effectiveness of the spray and long-term effects of such spraying on the trees and the insects. This project was carried out in cooperation with the University and the Mosinee Paper Mills Co. In addition to the experimental area, the Mosinee Co. and the Cornell Paperboard Products Company sprayed 15,270 acres of their own lands. The budworm kill was excellent over the entire sprayed area.

Approximately 10,000 acres of jack-pine were infested in the Oneida-Vilas County area. No direct control measures were carried out except that cutting of overmature and other highly susceptible trees was recommended.

Other insects were not quite so spectacular while going about their business of damaging trees. Some young jack-pine plantations in Marinette County were heavily infested with pine tortoise scale in 1955 and some mortality occurred. Scattered light infestations were observed in several of the north central counties. A heavy infestation in Sawyer County was brought under control by lady beetles and other factors. No serious outbreaks of this pest were reported in 1956.

Over 2000 acres of red pine were sprayed in scattered plantations of various sizes in Marinette, Vilas, Oneida, Langlade, Lincoln, and Sawyer Counties in 1954 to control the Saratoga spittlebug. In 1955 aerial spraying with DDT was done on 2,366 acres of state, county, and industrial forest lands to protect plantations across the northern part of the state.

Severe infestations of the white pine weevil occurred in several counties in 1954. Trees were hardest hit in Douglas, Langlade, Vilas, Sawyer, Dunn and Rusk Counties. As high as 50% to 90% of the leaders were infested in some stands. Weevil infestations were generally heavy on open growing white pine in the northern half of the state in 1955 and some direct control was attempted by pruning. Reports of weevil attacks on red pine were general and caused concern for these trees. Other trees reported to be infested



were Norway spruce and jack-pine. Early in April, 1956, 4,500 white pines were sprayed with lead arsenate in Sawyer County. Knapsack sprayers were used and it was felt that it was feasible to control the insect with such equipment where the trees are of high value.

For the past several years the forest tent caterpillar has been defoliating the aspen and some other hardwoods in the northern part of the state. It was estimated in 1954 that the infestation covered over 8,000,000 acres. During the biennium there was little change in the size of the over-all area infested but the intensity of the infestation varied considerably from place to place in the tent caterpillar zone. The heaviest infestation during the past two summers was concentrated in the northern tier of counties as far east as Vilas County and south into Price County. The parasitic fly *Sarcophaga aldrichi* was still a nuisance in the resort areas and some complaints were received from people working in the woods, but it appears to be doing a good job of destroying the tent caterpillar. Resort owners and other private property owners did some spraying for local control of the defoliator and generally the insect seems to be on the decline, but it will be some time yet before its numbers are reduced in all areas of the present infestation to the point where it will not be noticed.

Another defoliator which has come into the limelight during the past two years is the saddled prominent, a defoliator of hard maples and beeches. A 20-acre tract of hard maple was reported as being heavily defoliated in Kewaunee County in 1954 and reports of second year defoliation came in the following year from Shawano and Marathon Counties. The insect was cause for some concern by people visiting Door County the past two summers where maple and beech trees were stripped of their foliage in Peninsula State Park and other parts of the peninsula. Defoliation was almost complete on the outlying islands also where the timber type was predominantly beech and maple. No apparent permanent damage has been suffered by the trees in the area and no direct control operations are contemplated unless natural control factors fail to keep the insect in check and thus endanger the trees. A disease was found to be destroying the larvae where defoliation was heaviest in 1956 and rodents and predatory beetles were found to be eliminating many of the pests.

The European pine shoot moth, a serious pest on red pine in the states east of Wisconsin, has been reported from eleven counties in the eastern and southeastern part of the state. It has been found mostly on ornamental red mugho pines from Door County south to Kenosha County and west as far as Rock, Dane, and Columbia Counties. A few infestations have been reported to plantations. Insects' ability to survive under Wisconsin conditions in the counties where red pine plantations are most numerous has not been determined. Studies to obtain this information are being considered.

Sawflies which have attracted attention are the red-headed pine sawfly which required some chemical control work in widely scattered areas of the state and the introduced pine sawfly, a defoliator of white pine, which has been reported from 22 counties in northwestern Wisconsin. The balsam fir sawfly which feeds on balsam and spruce was common throughout its host range and built up to the point where defoliation of balsam fir was heavy enough to do some damage along the lake shore in Door County. Defolia-

tion by the larch sawfly varied from complete to very light in stands across the state. Several plots were established where observations could be made on the number of times individual larch stands are defoliated in consecutive years and the effects of such defoliation on the trees and the stands.

In addition to the insects, diseases continue to take their toll in our forests. Timber owners are becoming concerned about a disease which has caused loss of maples in Marathon County. Maple-dieback, as it is known, causes branches of large trees to die from the tips in toward the trunk, eventually causing death of the entire tree. Research is currently being conducted by University pathologists to learn more about the nature of the disease and what can be done about it.

One of the principal vectors of Dutch elm disease, the smaller European elm bark beetle, has been collected in 19 southern counties from trees in which they were breeding. The first case of the disease in Wisconsin was reported by the State Department of Agriculture in the summer of 1956 from Rock County.

An unknown disease is causing mortality to young jack-pines in plantations in Bayfield County, and oaks in the northwestern part of the state are being killed by a disease which has the outward symptoms of oak wilt, but is not believed to be oak wilt. These diseases also are under investigation.

### FOREST INVENTORY

The thirty-two county forest inventory covering some 18,000,000 acres is rapidly drawing to completion. In the extensive survey in which a sampling system is used, all of the field work has been completed for thirty of the thirty-two counties. Only Lincoln and Price Counties remain. The intensive or 100% sampling phase has remained fairly constant in its progress since the last biennial report with most of the mapping being done in the county forest acreage. Only small acreages remain to bring this project to completion.

The various phases of the forest inventory can be broken down as follows:

*Photography:* During the summer of 1955, four and one half of the remaining five counties of Oconto, Shawano, Marinette, Lincoln and Price were flown. The past summer every possible hour of flying days was utilized but parts of two strips remain unphotographed in Price. Few people are aware of the stringent specifications necessary for good aerial photographs. From the altitude of almost 11,000' a perfectly clear and windless day is necessary between 10 a.m. and 2 p.m. In our Lake States we average three to four such days in any one summer when leaves are in full foliage. We did not receive our share of these days this past summer, and our shortage of two strips in Price County resulted.

*Mapping:* The completion of the mapping in Oconto and Marinette Counties makes it possible to complete the computations in the three-county unit of which Florence is a part. Shawano County is also completed and this county, together with Langlade permits another sample unit to be taken through the computing stages. The Lincoln-Price County units will be completed by fall of 1956.

*Cruising:* The sampling of representative forest areas by means of one-fifth acre sample plots to determine timber volumes, growth, distribution, etc. is, of course, at the same stage of completion as the mapping noted above. Approximately 9,800 sample plots have been measured, of which about 1,200 are permanently established plots that can be remeasured at future intervals for up-to-date inventory data.

*Computing and Reporting:* To date twenty-one of the thirty-two counties have been published and distributed. Progress in this phase has been keeping pace with field work and mapping. Acreage computations have been completed for two of the remaining counties, and four additional county reports have been written and are in the process of publication.

*Intensive Inventories:* Since the greatest effort has been applied to the extensive phase of the survey during the biennium, the 100% mapping of state, county and industrial forests has been comparatively small. The county forests have had 56% mapped previously and in this biennium the acreage mapped has been increased to 79% of the total 2,173,613 to be mapped. Eighty-two per cent of the industrial forests and 97% of the state forests have been mapped previously. The latter acreages have lacked aerial photography or they would have been 100% completed in this period.

*County Forest Management Work:* As part of an intensive program that will lead to a sustained yield cutting budget, the forest inventory has completed the taking of 3,153 additional one-fifth acre plots in Douglas (903), Oneida (851), Langlade (737), and Sawyer (662) county forest lands. This is followed by the compilation of a cover type map for each township on which cutting compartments are laid out for guidance of the district forester. After applying the necessary computations based on the mapping and plot data the forest manager knows the allowable cut and can arrange the timber sales program accordingly.

*Watershed Projects:* During this biennium an additional duty has been carried out by the forest inventory section in the state's watershed program. It has been given the assignment of preparing a cover type map from aerial photographs based on a 100% mapping job. In addition a 100% acreage count is made and a forest sampling scheme is set up for each watershed, the data being collected by the local district foresters. The following watersheds have been completed to date:

<i>Name</i>	<i>Counties</i>	<i>Acreage</i>
Yellowstone Lake.....	Iowa, Lafayette.....	29,817
Kickapoo Valley.....	Vernon, Monroe.....	18,787
Peterson Mill Creek.....	Waupaca, Portage.....	13,266
Sand Creek.....	Chippewa, Dunn, Barron.....	13,095
Black Earth Creek.....	Dane.....	30,255
Total.....		105,220

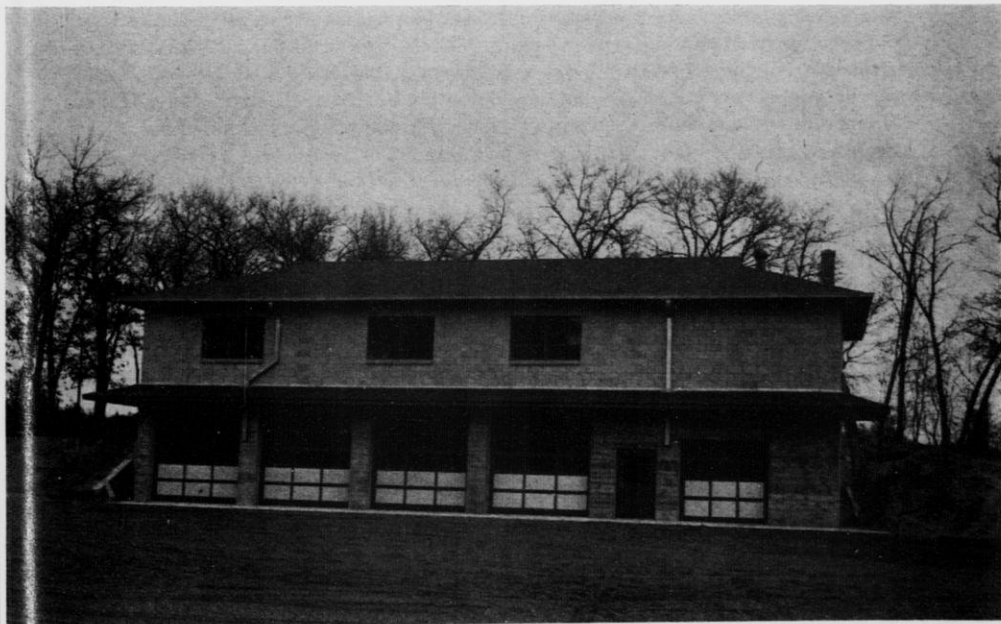
## Engineering

The engineering division of the Conservation Department exists in accordance with the provisions of Sections 15.77 (6) and 15.78 of Wisconsin Statutes. It was originally organized in the fall of 1950. Engineering work is carried out in accordance with four basic principles.

1. An engineering project approval system insures that a clear understanding of the engineering job is first worked out between the engineering division and the division being served and then that before any work is done the director and his staff have the opportunity to approve or reject the contemplated work.

2. A complete centralized engineering file is kept and a standard drawing system is followed. Thus engineering plans in connection with any design are readily rendered available for modification and reuse on subsequent similar designs wherever possible.

3. A cost accounting and record system is followed whereby all engineering labor and materials are charged to the particular project concerned and are billed back against the cost of the development requiring the engineering service.



This is the garage and feed storage building at the Wild Rose hatchery. Like other new Conservation Department structures, it was designed by the department's engineers.

4. The engineering division is so organized into groups of personnel working in specialized phases of engineering, and work assignments are so made that individual engineers progressively develop into specialists and continually improve themselves.

In addition to carrying out strictly engineering work, effective March 1, 1955, the rivers survey section which formerly operated directly under a departmental assistant director was transferred to the engineering division. This has meant that in addition to normal engineering work the division is charged with the determination of effects on relative conservation values of water level changes, highway relocations, water diversions, and other physical changes. The engineering division is also charged with coordinating these problems with the various divisions which may be affected. The rivers survey section is a part of the engineering division because a fundamental part of engineering involves water levels and water level controls, water table studies, and studies of soil conditions. These factors are basic considerations in carrying out rivers survey work.

As might be expected, because the Conservation Department is a continually growing and developing organization, the work load imposed upon the engineering division has been continually increasing. However, due to increased efficiency and by taking advantage of normal personnel turnover, the increased work load has been carried while actually reducing the number of engineering personnel. In consequence of this personnel reduction, even though salary rates have been substantially raised, the over-all engineering costs have been held to a level less than they were at the time of original organization of the division. The following table summarizes the situation in this connection on a fiscal year basis. It will be noted that rivers survey personnel and expenditures generally are listed separately in this table to keep such activities and their associated costs distinctly apart from engineering costs as originally tabulated before rivers survey became a part of engineering.

In the above table under Items No. 1 and 2, the engineering division manpower is shown in both man-months and the total number of men at the end of the fiscal year. This is done because due to some variation in the number of engineering personnel throughout the year the number of man-months shown better correlates with total salaries paid than does the total number of personnel at the end of the year.

Because of the decrease in personnel, although the monthly average salaries per man shown under Item No. 4 is a steadily increasing quantity, the total annual salary expenditure has been held approximately the same. By coordination of travel and making special efforts to eliminate all unnecessary travel, the expense account total for all personnel has represented a continually decreasing figure. Under Item 6, it will be noted that "capital expenditures" for equipment, furniture, and nonexpendable materials were relatively high in the beginning because of the original organization of the engineering division. Then subsequently, these costs were relatively low until in 1955-56 they again rose to a new high. This was because the capital investment costs for 1955-56 include all rivers survey capital costs, which section was transferred to engineering during the 1955-56 period. Item 7, "all other engineering costs," includes all fees for consulting engineering

### COST SUMMARY AND COMPARISON WITH PAST YEARS

No.	Item	1951-52	1952-53	1953-54	1954-55	1955-56
1	Engineering personnel (man months).....	178	175	147	149.2	144
2	Number engineering personnel (at end of year).....	17	12	13	12	12
3	Annual total salary for all engineering personnel.....	\$61,027.08	\$64,247.53	\$58,891.27	\$60,912.27	\$61,124.00
4	Average monthly salary per man.....	342.84	367.13	400.62	408.26	424.47
5	Annual total expense account.....	10,655.01	9,603.78	8,083.00	6,924.81	6,723.01
6	Capital investment costs.....	1,426.52	292.90	994.74	496.27	1,887.96
7	All other engineering costs.....	13,441.91	10,368.15	9,838.13	9,917.99	11,315.60
8	Total engineering costs.....	86,550.52	84,512.36	76,812.40	77,755.07	81,050.57
9	Item "8" less item "6".....	85,124.00	84,219.46	75,817.66	77,258.80	79,162.61
10	Rivers survey (man months).....					12.5
11	Rivers survey personnel.....					2
12	Rivers survey annual salary.....					4,969.17
13	Rivers survey expense accounts.....					1,836.08
14	Total annual rivers survey cost.....					6,805.25
15	Grand total engineering division cost.....					87,855.82



services, including the State Bureau of Engineering Services, fees to the U. S. Geological Survey for cooperative planimetric mapping, all expenses for prints, bid advertising, office supplies, and any and all costs that were neither salary, travel expense, or the purchase of capital equipment. It is felt that Items 8 and 9 are self-explanatory. Items 10 to 15, of course, represent rivers survey costs. Of the total expenditures shown above, approximately 40 per cent of the funds were provided by the fixed budget of the engineering division and the remaining 60% of costs were billed back to divisions served and charged against the particular project in each case. For example, in the design and construction of a given building, all engineering costs for such building were paid for out of funds authorized for the particular structure. Then on an accounting basis, engineering costs for the structure were reported as part of the cost of that structure.

All engineering administration, coordination within the department, and relations with other engineering agencies such as the State Bureau of Engineering, Industrial Commission, Board of Health, Federal Aid engineering office, etc., is taken care of through the chief conservation engineer. He also works with and assists engineering personnel in carrying out specific project assignments. The engineering division is organized into four basic engineering sections, each section headed by a section chief. Then, in addition, the rivers survey section is set up as an independent group and works through the topographic and hydrology section of the engineering division. The work carried out by each section is generally outlined as follows.

### MECHANICAL SECTION

In order to carry on required activities, the department owns and operates approximately 470 trucks, together with numerous tractors, trailers, fire plows, pumpers, and many other mechanical devices. The efficient purchase, development, use, and in some cases manufacture of such equipment, poses many mechanical engineering problems which require solution, continuous observation, and study. These are carried on, and in addition, many heating and refrigeration problems arise which must be handled. The mechanical section is required to be on the alert to insure that the most up-to-date and proper equipment is used to obtain maximum efficiency in the various operations carried on by the department.

### ELECTRICAL AND COMMUNICATIONS SECTION

To fulfill its responsibilities, especially with respect to fire fighting, the department owns, operates, and maintains approximately 2,000 miles of telephone lines, 20 switchboards, many telephone instruments, and associated telephone gear. To further extend this point-to-point communications net, the Conservation Department has cooperated with the Motor Vehicle Department in the construction by the latter agency of a rather extensive microwave communications system. Supplementing these point-to-point facilities, a land mobile radio service is operated to connect from the various field stations and fixed points to mobile field units. A total of 366 radio

units are operated in this connection. The resulting communications engineering demands, both from the standpoint of planning, operations, and maintenance, is therefore great. The electrical and communications section assumes this responsibility. In addition, they must make continued studies to insure that the department keeps up to date in this rapidly developing field. Also, they provide such electrical power and lighting engineering services as may be required.

### STRUCTURAL SECTION

Throughout the department's several divisions, it owns and maintains approximately 1,500 buildings of varying sizes and located in all parts of the state. The structural engineering problems resulting from the standpoint of maintenance, disposal, and new construction are numerous. The structural section, in cooperation with the topographic and hydrology section, is also called upon to design dam structures for water impoundments required in connection with game and fish habitat developments and for recreational developments. Special structures, such as water control devices, fish hatchery raceways, and other structural design problems are encountered.



Here is the new Oshkosh conservation area headquarters under construction. The building was completed and occupied in 1956.

## TOPOGRAPHIC AND HYDROLOGY SECTION

This section provides land surveys and topographic surveys. It carries on all departmental topographic and planimetric mapping, provides necessary geological services, and conducts hydrological studies. As a result of this work, engineering recommendations are made relative to water impoundments, water tables, runoff, and various water supplies. Since the establishment of Pittman-Robertson and Dingell-Johnson federal aid for development of fish and game habitat, the demands for surveying, mapping, and hydrological studies have greatly increased to where this section is called upon to do a great amount of engineering work. In addition, as previously indicated, this section is charged with the supervision and control of the rivers survey section.

## RIVERS SURVEY SECTION

This section, which operates through the topographic and hydrology section, is charged with five specific responsibilities.

1. Maintain an up-to-date inventory and record of Wisconsin's streams of all classes, listing such streams on a priority basis for desired maintenance in a natural state as determined from a conservation viewpoint.
2. Investigate, study, and make recommendations relating to all proposals for changes in water levels in lakes and impoundments within the State of Wisconsin, evaluating such changes in terms of the affects on conservation values from fish, game, and forestry standpoints.
3. Investigate and make recommendations relating to any affects on conservation values caused by highway relocations, reconstructions, or new construction projects.
4. Locate and recommend to the Conservation Commission desirable access sites to Wisconsin's rivers for most effective public usage of such river facilities.
5. Take such action as may be required to protect conservation interests in connection with the diversion of water from streams for agricultural irrigation purposes.

Recommendations in connection with all five of the categories of work listed must be arrived at not only through individual investigation and study, but also through cooperative efforts involving the various other departmental divisions which may be interested.

Records show that all of the above sections of engineering, exclusive of the rivers survey section, between July 1, 1954 and June 30, 1956 have handled approximately 210 separate specific assignments. Some of these assignments have been minor tasks requiring only a few hours while others have been major tasks calling for hundreds of hours of work spread over many months. Most of these assignments have been completed, but some are continuing and in the process of completion. Also a considerable number of long-range projects are still in process which were actually begun prior to the biennium here being reported.

## Information and Education

The primary function of the information and education section is to provide reliable information to our citizens so they may better understand the policies and activities of the commission and department. The work of the division is conducted by the information, education and recreational publicity sections.

The media used with variations in methods during the past two years were similar to those in the previous biennium. Newspaper services for daily and weekly papers have been continued. Two monthly publications reach approximately 80,000 readers, a speakers' bureau is in operation, motion pictures and other visual aids have been produced and distributed, special pamphlets and informational literature have been prepared, exhibits have been planned, constructed and presented and special services undertaken with schools, teacher training institutions and camps as well as with adult and junior clubs and organizations. The program of advertising Wisconsin continued to be one of the functions of the information and education division.

### INFORMATION

#### News Services

During the biennium news releases were sent to all daily and weekly newspapers. The same news services were provided for radio and TV stations. Special stories of current value were given to the wire services.

In addition to a limited mat service an illustrated feature service was inaugurated in 1956. More than 100 state papers have indicated their desire to use this material and receive mats regularly.

During the tourist season a weekly "How's Fishing?" report on fishing conditions based on information supplied by conservation wardens in all counties of the state was compiled and distributed to 700 outlets in and outside the state. A number of radio and TV stations regularly used this material in their programs.

#### Wisconsin Conservation Bulletin

The Wisconsin Conservation Bulletin has been published monthly since 1936. It is a 6 x 9 bulletin-size magazine, usually 40 pages (32 in summer) in recent years, and printed in black and white only.

Bulletin circulation increased from about 61,750 to 71,900 in the biennium. Approximately 12,000 copies of each issue now are supplied to Wisconsin schools (except in summer). The aim is to provide each school with at least one copy, and larger schools receive more, as for example one each to the science section, social science section, vocational agriculture section, library reading room, library files, and principal.

The Bulletin's emphasis continues to be on brief, understandable and authentic articles concerned with Wisconsin fish management, game management and forestry, plus a conservation education section and a report on Conservation Commission action. One new feature, a page-length section entitled "It's the Law!" was inaugurated during the biennium. Material is presented on a variety of other conservation and conservation-allied subjects, particularly including soil conservation, water conservation, farmer-sportsman relations, and safety in the outdoors.

### Activities Progress Report

The Activities Progress Report is a multilithed monthly publication with a mailing list of about 4,000. It is distributed primarily to those who have various responsibilities in conservation, including Conservation Department personnel, other conservation agencies, legislators and certain other public officials, members of the Conservation Congress, officers of Wisconsin conservation clubs, libraries, and information media such as newspapers, radio stations and TV stations.

As compared with the Bulletin, the Progress Report conveys information more promptly and in greater detail but in generally less popular form. It carries reports of commission meetings, the complete text of policies adopted by the commission, field reports from the five Wisconsin conservation areas, and various other reports and data of state-wide significance.

A development of the past biennium is that the Progress Report now cites actions of the department's Personnel Relations Advisory Board. Also, it carries more statistical and research data, in many cases tabulated by counties or areas, thus serving the press with material for news stories and comment which can include a local angle.

### Other Publications

There has been an upward trend in the number of regulations pamphlets required, except trapping. In 1955 the number of fishing regulations pamphlets was 1,500,000; general hunting, 700,000; and waterfowl, 200,000. Because of lessened interest in trapping, only 40,000 copies of these regulations were published compared with 60,000 previously.

Other publications included the Twenty-Fourth Biennial Report of the Wisconsin Conservation Commission, new editions of various older publications, and a considerable number of two to eight page reprints from the Wisconsin Conservation Bulletin.

## EDUCATION

### Schools

Weekly, hundreds of requests for materials are received from teachers and pupils. These requests are for bulletins, reference lists, films, display sets and general information on how to integrate conservation education in the school curriculum.

The Wisconsin Conservation Bulletin is sent to all schools and during the school term a special section is prepared monthly to aid teachers with their conservation teaching.

CONSERVATION BEGINS WITH EDUCATION

SPONSORED BY STATE CONSERVATION SOIL COMMITTEE  
AND WISCONSIN CONSERVATION DEPARTMENT

Help WELD the  
"CONNECTING LINK"

CURRENT Conservation MATERIALS

FOREST

SOIL

WILDLIFE

PROGRAM

REGISTER HERE for Your CONSERVATION PROGRAM

REGISTER HERE

**Conservation materials for teachers were displayed at the Teachers' Convention in Milwaukee.**

Five years ago the Conservation Department began a planned program of visits to high schools during the winter months. About eighty high schools are visited each year bringing a program of demonstration and lectures to approximately 35,000 students each year. These programs have been properly named "Conservation Day" programs as the entire school day is given over to actively showing the practical application of much the students study in science classes. In the past biennium increased attention has been given to assisting teacher training institutions by offering the services of our technicians during the time the cadet teachers' training concerns the areas in which the department has a specific responsibility.

Revisions and reprints have been made of the Conservation Directory of Field Personnel Available to assist school programs and has been distributed to all vocational agricultural teachers and is sent to schools on request. The booklets: Wisconsin Forests, Wisconsin Wildlife and Selected References on Conservation have been revised and reprinted in quantity for teachers.

A number of cooperative projects have been carried on with the Department of Public Instruction and other public and private agencies. Most notable have been the practical conservation summer courses with the Madison and Stevens Point high schools and the University of Wisconsin and Stevens Point State College cooperating. These projects have not only



accomplished a great deal of needed conservation work but have been the means of imparting considerable practical conservation knowledge to teacher trainees and students.

With the growing interest in school camping the Conservation Department has cooperated with the Department of Public Instruction in conducting two successful conferences for educators, bringing out the opportunities it affords in teaching conservation.



High school students learn conservation lessons with work on a trout stream, while future teachers from the University of Wisconsin observe.

### Clubs

During the past biennium, the 644 conservation organizations were given assistance and urged to adopt an action program for the purpose of creating a better understanding between the farmer, landowner and sportsman.

The adult conservation clubs and other allied organizations were offered the services of the Department personnel for the purpose of providing talks and motion picture showings which were primarily concerned with conservation activities of this department.

Cooperating with the Trees for Tomorrow, Inc., conservation camp and through the Education and Public Relations Committee of the Wisconsin

Conservation Congress, 32 delegates from sportsmen's clubs participated in an educational program at the Trees for Tomorrow Camp.

Working with the Education and Public Relations Committee of the Congress, outstanding conservation organizations were given awards in each of the five conservation areas of the state for their outstanding contributions to the management of our wildlife, soil and water resources.

A member of the Education Section also serves as liaison between the Conservation Department and the Conservation Congress.

### Visual Aids

During the biennium production of a new color sound film, RED 14, showing the activities of the game research division, was completed. The first print of this film arrived at the end of this biennium. We believe it is destined to become one of our most popular films. Numerous other states have requested copies for their own use.

Our film WATERSHED, completed at the end of the previous biennium, had its premier showing at the annual meeting of the American Fisheries Society in Seattle, Washington, in September, 1954. Since that time this film has become increasingly popular and copies have been sold to state and federal agencies.

Filming of a new FARM FORESTRY film was begun during the later part of the biennium after conferences with members of the forestry division. It will be completed in 1957.

In addition, several films were made for the Watershed Management Division of a "how to do it" nature. Films on proper method of "Fencing", "Building Cattle Crossings", "Log Crib Shelters" and "Sheet Piling Devices" were made. So much of this type of work requires vast amounts of manpower, and it is the purpose of these films to instruct cooperative farmers and conservation clubs into the easiest and best methods of accomplishing this program.

Cooperative assistance was given our Education Division in the making of three educational motion picture films: CONSERVATION DAY IN THE SCHOOLS, a black and white sound film; GOING TO SCHOOL ON A TROUT STREAM, a color silent film well titled and SCHOOL PROJECT 1955, a color silent film.

Cooperative assistance was given the Forest Protection Division during this period and considerable color motion picture footage was taken and turned over to them for their use.

A Television film on Yellowstone Lake was made of the dedication of this artificial lake in southwestern Wisconsin, followed up with winter scenes of test net lifts to show the abundance of fish in the lake after a comparatively short growth period. CBS-TV in New York made 47 copies of this film, and it was reported to have been shown as far afield as England and Venezuela.

A documentary film taken mostly from the air of the Token Creek Watershed before development was taken during this period.

Several scenes of recreation fishing were taken and compiled with other scenes accumulated during the past several years to a total of over eight thousand feet of color, action fishing footage. This footage will be made into a new recreation type fishing film during the next biennium.

Working with the Wisconsin Association of Vocational Agriculture Instructors and our Forestry Division, a slide set was edited of over 200 slides and made into color film strips for Vocational Ag teachers throughout the nation. The master film strip has been turned over to the University of Wisconsin and they are making copies available to teachers at a nominal cost.

In addition to the motion picture production mentioned above, black and white and color stills are continuously being produced by our own personnel and field personnel. All film is sent in to this office for processing and screening in order to add to our general public file which contains 14,631 black and white, 3,854 color 2 x 2 and several hundred larger color transparencies.

Newspapers, magazines and other publications used 9,924 black and white and colored photographs during this biennium. Processing of black and white and colored photographs totaled 6,927. Prints and enlargements made during this period totaled 21,923.

The film library distributes 62 film subjects, mostly color sound, 11-2 x 2 slide sets in color, 11-display sets made up of photographs mounted on 16" x 20" mounts. These are available free of charge upon request to schools, organizations, church groups, etc.

During the biennium there were 6,642 film shipments sent, in these 9,364 films were enclosed. The films were shown to 1,027,940 people. Slide shipments were 526 and display shipments 520.

Department personnel received 3,516 shipments for their programs.

TV stations throughout the United States have used many of our films. Approximately 85% of the films are used by Wisconsin schools.

The Milwaukee Museum is supplied copies of Conservation Department films and report 1,662 film shipments of our films that were shown to 95,740 people in Milwaukee.

### Exhibits

The conservation shows presented during the biennium to sportsmen's clubs, county fairs and civic groups were an 85-foot setup of game animals and birds in a rustic northwoods setting with white birch trim, a live fish display and various educational exhibits including diaramas, photo blow-ups, colored translites, animated characters, and in many cases, continuous color slide and sound motion picture projection. More educational features were worked into the displays during the last two years and an information and literature display booth was continually employed with the wildlife exhibit.

The 2½ acre conservation department exhibit at the state fair grounds at West Allis was improved with several new features during the 1955-56 seasons. Starting early in spring each year the improvement began with new trees and shrubs plantings with continued care up to fair time. New attrac-



**The Conservation Department plays an active role in training teachers in outdoor education. The subject here is gun safety.**

tions included permanent pens for the wild animals and birds, a more attractive setting for the wild fish display, a new literature display and information booth and educational demonstration by forest protection rangers on the first landing of the 100-foot fire tower.

The popularity of the exhibits continue to stem from their interesting attractive appeal and the fact that the messages they impart are understood by thousands of state citizens, many of whom are not naturally too concerned about conservation activities. The opportunity to see and identify native game birds, animals and fish due to department motion pictures and colored slides, become acquainted with conservation publications on display, and most important of all, to contact department personnel at the information booth all helped promote conservation education and good public relations.

Demands for the conservation exhibits increase each year. The past biennium marked an upward trend in exhibit activities with 49 conservation shows in 1955 and 53 exhibit appearances during 1956 season.

## Recreational Publicity

Wisconsin's extensive program of advertising and publicity "to attract tourists from outside the state to this state" was in its twentieth and twenty-first years of continuous operation during the biennium. This promotional activity is now financed by an annual appropriation of \$253,100.

Concerted efforts to attract tourist guests to Wisconsin stressed "Vacation Fun for the Whole Family" in addition to such features as fishing, lakes and streams, scenic and historic attractions, autumn color tours, excellent highways, winter sports, and accommodations. Special aspects of the program included magazine and newspaper advertising, frequent news releases, magazine articles, motion pictures, photographic releases and exhibits at out-of-state travel and sports shows in Illinois, Indiana, Ohio, Michigan, Missouri and Minnesota.

Display ads were scheduled to appear from February through June in 32 leading outdoor magazines and other nationally circulated publications. Newspaper ads appeared from April through June, and also early in the



New in 1956, the Official Wisconsin Vacation Center in Chicago supplies our prospective visitors with free, impartial and effective information on all Wisconsin's attractions.

fall to stimulate autumn business, in 33 large metropolitan newspapers with heaviest concentration in the north central states which are Wisconsin's greatest potential zone of vacation appeal. Television was also used effectually in the Chicago market area.

Inquiries received in response to this diversified invitational program of advertising and publicity reach new record high totals during the biennium. The number of inquiries received during 1955 was 131,926 and through June 30 of 1956 the response numbered 114,372. All inquiries were promptly serviced with packets of informative vacation literature and maps, often supplemented with regional literature and personal letters. Featured in the literature packet was our new color illustrated book entitled "Your Family Vacation Guide to Wonderful Wisconsin".

Opening our Official Wisconsin Vacation Center located at 205 North Michigan Avenue in Chicago on April 30, 1956, marked the attainment of an outstanding objective for Wisconsin's outdoor recreational industry. This finely equipped and able staffed office is designed to serve the travel needs of Chicago area residents with free and impartial information and reference material about our state's vast and diversified travel and vacation attractions.

Close and friendly cooperative contacts were maintained with travel editors and outdoor editors, motor clubs, travel agents, travel feature writers, radio outdoor sports commentators, railroads, bus lines, air lines, steamship and auto ferries. In brief, all ethical means were successfully and economically employed in conducting Wisconsin's tourist promotion program.



## Law Enforcement

More and more people are participating in the sports of hunting and fishing. For the last four years Wisconsin has sold more nonresident fishing licenses than any other state in the Union. Because of the tremendous increase in persons participating in this outdoor recreation, we find in the Law Enforcement Division that we have more and more people to supervise so that the rules and regulations are being lived up to. With industry on a shorter work week and with paid vacations for many of our people, and with the economy of the country at an all-time high, this, too, adds to great numbers of persons enjoying themselves in the out of doors.

The objective of the Division is not to see how many people we can arrest in any given period of time, but to see how well we can obtain compliance from the people without having to arrest them. In other words, a great share of the emphasis of our enforcement officers has to do with a program of prevention as well as one of apprehension.

We find that there is more interest by the elected officials as well as members of the Legislature in a sound conservation program today than there has ever been before. Cooperation among state agencies as well as courts and district attorneys is the best that it has ever been in the history of the state. This does not mean that we have reached the point where we can relax, as there are still too many people who are violating the conservation laws. For example, in the last biennium there were 7,239 persons who were arrested for violating conservation laws. Most of this fine money goes into the school fund, and a small percentage is retained by the county in which the offense was committed. Also, there were 5,168 seizures that were made during this period of time consisting of hunting and fishing equipment which was confiscated by the courts in addition to the fines paid.

During the past biennium the Law Enforcement Division has been increased from 105 to 130 men, and we have been engaged in the business of hiring these men from examinations which have been given by the Bureau of Personnel. High standards are set up by the Conservation Department, and we train these men for a period of six months when they are on probation before they actually take charge of a station and are responsible for a given area. Those who do not fit into our organization are not accepted, and the screening process that we use is very strict. We hire these men only if they are good organizers and planners, as they are responsible for conservation law enforcement on a field level together with being supervised by an area supervisor. They must enforce the law fairly, impartially, and honestly regardless of race, creed, or religion. The conservation officers in this state are the one group of state personnel that come more in contact with nonresidents and residents alike than any other state representatives. Consequently, it is imperative that we have the highest quality of man power to represent not only the Conservation Department, but the state of Wisconsin.

There are thousands and thousands of people that come here from other states to spend their vacations. We look upon these people as our guests and ourselves as the hosts, and we try to help them wherever and whenever we can. Because of our numerous contacts with these people, it is important that they be approached properly and treated courteously, as the economy of our state is affected by the manner in which we operate as officers.

This past biennium we have inaugurated a new program whereby all of the drownings in this state are investigated by our personnel so that we will have facts and figures to present to the Legislature in case there are any new safety bills proposed relative to boating in this state. We already report and investigate all gun hunting accidents.

Recognizing that education can be used as a great tool in the prevention of violations, this division participates in a conservation education day program that we put on in various schools of the state with other major divisions of the Department also participating. We have a great interest in the youth of this state, as we all know that the minds of the youth can be molded; and if we as adults assume the proper leadership and provide the proper guidance, the energy that the youth has can be directed for something constructive rather than for something destructive if they are left on their own. We feel that this youth program will not only make better conservationists of our young people, but better citizens of them as well.

The Fish, Game, and Law Enforcement Divisions operate mainly from funds which are provided in the purchasing of hunting and fishing licenses. Consequently, one of our main enforcement duties is to check fishermen and hunters throughout the state to see that they have the proper licenses, as without an enforcement arm of the Department, the people would not purchase the licenses; and consequently, the program as it relates to fish and game would be necessarily a very small one unless funds were provided for separately by the Legislature.

Wisconsin is one of the top conservation states in the Union. We are blessed with natural resources; and, of course, they must have proper management and protection in order to have a continuance and continuity so that those who come after us will also be able to enjoy the sports of hunting and fishing and outdoor recreation.

During this past biennium we have equipped the remaining officers in our division with two-way automobile radios. This completes our installation of this valuable equipment. We, also, have purchased a number of walkie-talkies, which are pack field sets and which have proven themselves a real tool in apprehending the violator that is in the field or on the stream where it is necessary for two or more wardens to work together in apprehending a man on foot.

Each year one of our conservation officers is the recipient of the Haskell Noyes warden's award. This award is given to the warden who is selected as being the most efficient for the year and is given for meritorious service. The late Haskell Noyes, who was at one time a member and chairman of the Conservation Commission, inaugurated the giving of this award; and

it promotes a friendly competitive spirit among the officers to compete for this coveted honor. There have been 26 such awards given to date. The award is a watch, and the name of the officer is written on a plaque which is displayed in the Madison Conservation Department office.

In order for us to progress and get the best results, it is important that there be a complete understanding of our program by the people who represent us in the Legislature, as well as the elected officials and the public itself. In order to have this understanding, it is important that there exist a real and sincere desire to work together as a team. We sincerely believe that by having public participation in our conservation program that the best interests of the state in all phases of conservation will prevail.

# Fish Management

## INTRODUCTION AND ORGANIZATION

Wisconsin is recognized as one of the outstanding fishing areas in North America. This recognition is based on the variety of fishing that is possible and the abundance of fishes available. Angling pressure continues to rise and with an expanding human population with more leisure time and improved travel facilities it is expected that this pressure will continue to grow. It is evident that if Wisconsin is to maintain its fishing possibilities, it will have to continue a sound fishery management program and such a program can be carried out only on the basis of facts gathered by research. Therefore, it is essential that future emphasis be placed on research and an educational program so that application of acquired facts can be placed into operation with the understanding and cooperation of the public.

During the past two years much work was done to make certain organizational adjustments within the Department so as to improve and correlate the functional activities. In the fish management division, positions and responsibilities were clearly outlined. In addition, the organization plan provides for several new features, which when they become fully operative will result in a more efficient unit. The two most important steps provided are for a research unit under the direction of a chief biologist, who with the assistance of qualified project leaders will carry on research under four principal categories: warm-water fishes, cold-water fishes, fish pathology and nutrition and Great Lakes and boundary waters. The other step is to divide each area into districts and place a trained fish manager in charge of each district. The fish manager will then be in close touch with all management activities in his district and will give the public more direct and efficient service. Other important positions that will be filled as rapidly as funds permit and qualified personnel become available are an editor, assistant area supervisors, a biometrician and limnologist.

In addition to the study of the organizational structure, considerable effort was devoted to long-range plans to become operative when and if additional funds become available. Included in this program is the acquisition of headwater springs and fishing sites. This function, along with habitat improvement, is given top priority. Capital improvements calling for renovation of existing establishments is likewise given a high priority. Proper maintenance has not been possible because of the lack of funds and therefore the need for a program of this type is critical.

### Fishery Biology

Today, more than ever before, the management of sport fishing depends upon accurate biological information of the fish populations in the lakes and streams of Wisconsin. Thus, a primary responsibility of fishery biologists in the Fish Management Division of the Conservation Department is to maintain accurate, up-to-date records on important fishing waters. These



**Murphy Flowage is one of Wisconsin's experimental fishing areas. There is no closed season and no size or bag limit.**

records include what kinds of fish are most numerous in the lake, how many people fish the lake and what anglers are catching. Also, because new ideas for improving fishing always involves complex biological problems, the testing and development of these improvements in fishing regulations, habitat control and fish population control largely becomes the responsibility of trained biologists. Wisconsin has several lakes and streams under experimental management to determine, under actual conditions of public use, the most practical and acceptable methods of managing sport fishing for the benefit of the majority of the fishermen. The list of individual services performed by fishery biologists during the past biennium is a long one. Certain ones are described below only to indicate the wide variety of these services.

#### *Fishery Surveys of Lakes and Streams*

This activity will be necessary as long as there is an active fish management program. Fish stocking programs, to be effective, must be based on up-to-date information because fish populations increase and decrease rap-

idly due to natural conditions. Fishery surveys are also the only practical way to plan improvements in the habitat and to determine how productive these improvements are to fishermen.

#### *Experimental Management of Certain Lakes and Streams*

This program is a very efficient way to test new fishing regulations or new management procedures before applying them on a state-wide basis. This method also permits fish managers to determine if public opinion concerning proposed changes are favorable. Examples of testing public opinion of liberalized regulations for warm-water fishes are Yellowstone Lake in Lafayette County, Eau Claire Lake in Eau Claire County and Mauthe Lake in Fond du Lac County. In these lakes, where one can fish at any time of the year and keep anything he catches with a hook-and-line, public opinion has been very favorable and no depletion of fish stocks has been evident. The future will undoubtedly see an increased liberalization of such fishing regulations on a state-wide basis which will mean additional opportunities for fishing pleasure.

Yellowstone Lake offers an example of the tremendous potential of a lake to produce good fishing under modern and progressive fish management practices. This lake was formed by a dam on the Yellowstone River in southwestern Wisconsin. In July, 1954 when the dam was closed and the lake was being filled, the existing fish population was eradicated. The lake was later stocked with largemouth bass, smallmouth bass, walleye, channel catfish and green sunfish. Angling was never prohibited, although the fish were not large enough for satisfactory angling until 10 months after the lake was filled. The growth of the largemouth bass was so rapid that angler's catches of this species averaged 9.3 inches during the second summer. During 1955 more than four thousand anglers fished 12,135 hours and caught 15,773 fish. During the second year to September 15 only, fishing pressure had increased to 33,158 hours and the catch has increased to more than 21,000 fish. However, despite this heavy fishing pressure and extensive harvest, the fish populations are rapidly expanding and their growth rates are seriously declining.

### SPORT FISHING HARVEST IN YELLOWSTONE LAKE

Species	April 30-Dec. 31, 1955		Jan. 1-Sept. 15, 1956	
	Number of fish caught	Ave. length in inches	Number of fish caught	Ave. length in inches
Largemouth Bass	12,280	9.3	15,501	10.6
Walleye	394	11.4	1,483	13.8
Green Sunfish	2,598	4.8	2,940	5.9
Smallmouth Bass	324	8.5	90	9.9
Brown Bullhead	160	8.3	1,013	11.4
Channel Catfish	3	27.0	12	24.0
Brown Trout	11	17.8	22	17.4
Rainbow Trout	3	13.3	1	10.0
White Sucker			17	11.9

Another test of public reaction to changes in fishing regulations is the Peshtigo River trout management experiment. In a portion of this stream, fishing with artificial flies only is authorized. Research has shown that



bait fishing results in a higher kill of undersized trout than does fishing with flies. The stream will be planted with hatchery trout for the first two years only and thereafter it is expected that natural reproduction and the protection afforded by a minimum size limit of 12 inches will maintain adequate trout populations for satisfactory angling. During the first year of the experiment, public acceptance of these additional angling restrictions has been very favorable, judging by the heavy fishing pressure measured on this stream.

#### *Development of Improved Stocking Procedures*

This is another important part of a biologist's program, conducted on a cooperative basis with fish cultural personnel. Methods of planting trout in streams are continually being improved by marking the hatchery trout and finding out where they go. It has been the general observation that hatchery trout contribute most to the anglers in streams where the native population is not abundant. It is, therefore, a costly and wasteful procedure to stock hatchery trout where natural reproduction is high.

In a similar manner, marked plantings of muskellunge made in High Lake and Fishtrap Lake in Vilas County are being evaluated to determine which size of fish planted gives the greatest return to anglers for his dollar. In High Lake, slightly more than ten per cent of the yearling muskies planted have been caught by anglers as legal sized fish four to seven years later. However, in nearby Fishtrap Lake less than one per cent of similar plantings have been taken by anglers.

#### *Treatment of Fish Diseases*

Information on disease treatment and fish nutrition is given to state fish hatcheries and to other fish growers. In spite of many new advances in the diagnosis of trout diseases and the use of antibiotics for their treatment, mortalities at state fish hatcheries and cooperative trout ponds sometimes reach epidemic proportions. Under the most progressive fish cultural methods, because of the desire for high production in limited space, there will always be the threat from epidemic diseases. Fast and positive diagnosis and treatment of diseases and nutritional deficiencies is a necessary part of a successful fish culture program.

#### **Fishery Research**

During the past biennium there has been a growing awareness of the complexity of problems in fish management and of the need for specialized research to solve some of these problems. This has led to the establishment of definite field stations set aside for fishery research purposes and a staff of fishery research biologists to plan and conduct the necessary studies. These studies have concerned themselves with problems that are of present-day interest to fish managers and which must be solved before major improvements in fish management is possible. In addition, the University of Wisconsin is conducting fishery research in cooperation with the Conservation Department with personnel and technical facilities which would not be otherwise available to the department. The following descriptions of individual research projects indicates the broad scope of this program in Wisconsin where sport fishing is so important to the tourist industry.

### *Fish Harvest Studies Under Liberalized Regulations*

For many years, it was thought necessary to severely limit hook-and-line fishing to prevent depletion of fish populations in all lakes and streams. Recently, fishery biologists began to question the value of bag limits, size limits and other restrictions, especially in the management of many warm-water game fishes. Studies began on Escanaba Lake in Vilas County and continued up to the present time failed to show depletion of yellow perch and walleyes under these liberal regulations, even though fishing pressures generally increased because of favorable public interest in this kind of fishing. During the past biennium, this research program was expanded to include Murphy Flowage in Rusk County, an 180 acre impoundment containing a large population of bluegills, northern pike, largemouth bass and other pan fishes. Fishing pressure has been high and angling success has been excellent during the first two years of record keeping. As was true with Escanaba Lake, anglers have been unable to harvest enough of the bluegills and other pan fishes present to cause fear of depletion, even though nearly 30,000 fish were taken from this small lake during one summer of fishing. However, anglers are harvesting northern pike from this lake at a sufficiently high rate to warrant careful study of present fishing regulations for this species. The northern pike is too valuable a game fish in Wisconsin to risk depletion due to overfishing.

#### RECORD OF CATCH OF FISH FROM MURPHY FLOWAGE

<i>Species</i>	<i>No. of fish present in April, 1956 (over 5 inches)</i>	<i>No. of fish caught April 14 to Sept. 21, 1956</i>	<i>Per cent harvested</i>
Northern Pike.....	1,645	597	36
Largemouth Bass.....		791	-
Bluegill.....	100,810	23,400	17
Black Crappie.....	9,179	1,555	17
Pumpkinseed.....	4,173	701	17
Yellow Perch.....	23,801	1,206	5
Rock Bass.....	6,824	1,495	21
Bullheads.....	1,362	41	3
Total.....	147,794	29,787	

#### *Brown's Lake Largemouth Bass Study*

In many lakes in Wisconsin, populations of largemouth bass appear to be abundant and little utilized by anglers. Workers in other states have shown that this species is very difficult to deplete by fishing due to its wariness. In the 1952-54 biennium, a study of the rate of harvest of largemouth bass from Brown's Lake with no size limit and an open season of about ten months was conducted. In 1953, anglers caught 2,660 bass or about 12 per cent of the fish available. In 1955, the experiment was duplicated. In this year, anglers took 1,400 bass from the lake or about nine per cent of the fish available at that time. Largely on the basis of this experiment and the published works of other fishery research biologists, the size limit on largemouth bass was removed on a state-wide basis and a longer open season is now in effect in that part of the state south of Highway 64.

### *Walleye Studies in Escanaba Lake*

As an integral part of the experimental fishing under liberalized regulations, the walleye population in Escanaba Lake is being intensively studied. Estimates of the number of fish in the lake are made annually, and a complete record of the catch is obtained by a permit system of fishing. The most notable features of the harvest from Escanaba Lake during the biennium were a tremendous increase in the catch of yellow perch and pumpkinseed in 1955 and the large catch of small walleyes by ice fishing during the winter of 1955-56.

Estimates of the population of walleyes in Escanaba Lake and of the harvest in 1954 and 1955 show no great differences from the first eight years of the study. Anglers continue to harvest about a third of the available walleye population under no restrictions on hook and line angling. In years when there are strong year classes, many of these fish are of rather small size, but this has relatively little effect on the total production of larger walleyes.

#### CATCH OF WALLEYES IN ESCANABA LAKE (Over 9 inches long)

<i>Year</i>	<i>Number of fish in the lake</i>	<i>Per cent caught by anglers</i>
1954.....	4,897	30
1955.....	4,954	36

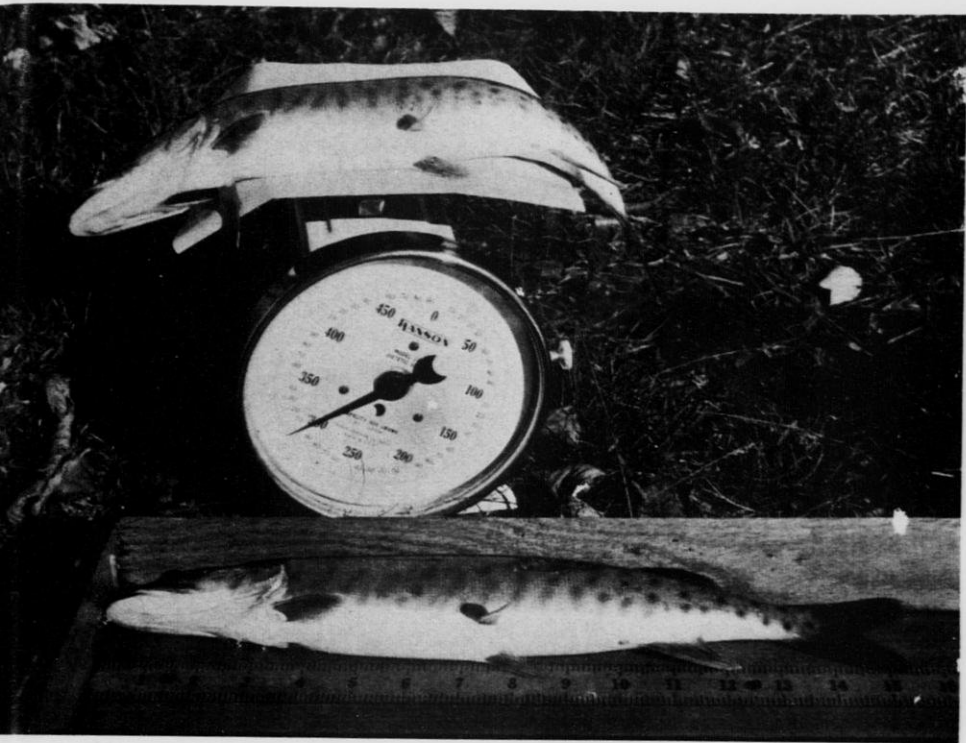
In the fall of 1954, marked walleye fingerlings were stocked in Escanaba Lake from state operated rearing ponds. This plant was made solely for the purpose of determining the survival of planted fish and to measure their contribution to the angler. The table below summarizes what has happened to this planting up to the time of writing. It should be noted that none of the walleyes caught by anglers from this planting have been as long as 13 inches, since they have not been in the lake long enough for them to grow to that size.

#### SURVIVAL OF PLANTED WALLEYE FINGERLINGS

Number planted in October, 1954.....	48,000
Number caught by anglers during first year after stocking.....	370
Natural mortality during first year after stocking.....	41,230
Number surviving to October, 1955.....	6,400
Number caught by anglers during second year after stocking.....	3,054
Number of walleyes yet to be accounted for.....	3,346

### *Muskellunge Research and Management*

The muskellunge is one of the largest of the fresh-water game fishes in North America. It is heavily exploited and probably stands in greater danger of depletion than most other game fish species. One method employed to maintain satisfactory musky populations is the pond culture and stocking of young muskellunge ranging in size from two to fifteen inches in length.



**Research has improved the efficiency of producing muskellunge for stocking. These muskies were 15 inches long at five months of age.**

Rearing ponds afford excellent opportunities for research into the life history, feeding habits, rate of growth and survival of this fish. It also provides the chance of obtaining detailed records of pond productivity and the reasons for good or poor production in each pond. During the past biennium, the best practices of musky culture at both the Spooner and Woodruff stations have been identified and adopted for future use. These practices include the culture of zooplankton as initial food for small fish, control of undesirable algae and aquatic plants through the use of proper fertilizers and chemicals, and the culture of young suckers and other forage fishes for food for larger sized muskies. The use of large ponds outside the Spooner and Woodruff hatchery grounds for the advanced rearing of two inch fingerlings to sizes of nine to fifteen inches has also been adopted. Under this system, an occasional muskellunge will reach 19 inches and three-fourths pound in a five and one-half month growing period (See photo).

Although the muskellunge stocking program is well accepted by the public, the values to the anglers are not completely known. In an attempt to determine the best use of these fish reared in hatcheries, a program is

underway to learn how many of these planted fish are eventually caught by anglers and which size of planted muskellunge contributes most to the total population and to the angler. In 1955 and 1956, approximately 22,000 young muskies ranging in size from 5 to 16 inches have been marked by removing a fin, or by placing numbered tags on or inside the body. The recovery of these marked fish from lakes in which they have been stocked will aid research workers in determining the best methods of improving fishing for this species. Detailed records of survival and growth of these plantings in special research waters such as Murphy Flowage will also aid in finding out which size of planted muskellunge can compete best with a native northern pike population. This is important if we are to reclaim original muskellunge lakes which have been recently overrun with northern pike.

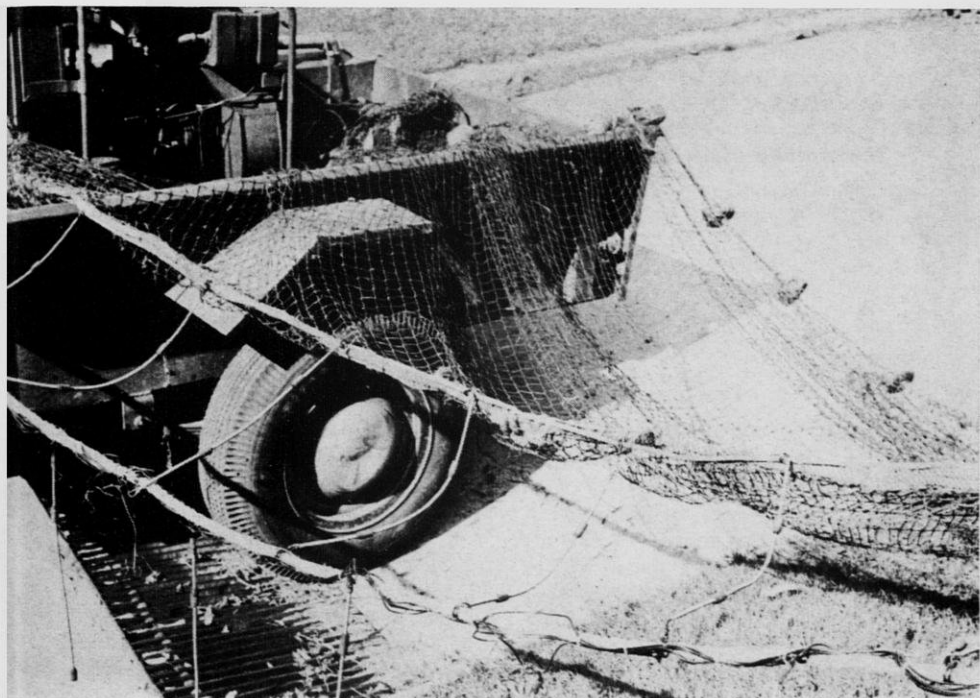
### *Lake Winnebago Studies*

For the first time in Wisconsin history, sturgeon spearers were required to register their catch. During the biennium, 3,500 sturgeon weighing 66 tons were registered. This is the first time that accurate information has been collected on this fishery, and the first opportunity for the collection of biological data for a proper study of this unique fish. Research has uncovered several important facts bearing directly on proper management of the lake sturgeon in these lakes. The Law Enforcement Division cooperated with the Fish Management Division in carrying out the registration of sturgeon.

An over-harvest of sturgeon in the upper small lakes (Poygan and Winneconne) has been demonstrated. This has resulted in restrictions of regulations in the form of a shortened season, a smaller bag limit, and the establishment of a sturgeon refuge in Lake Poygan. Because the populations of sturgeon in these upper small lakes is a distinct one from that in Lake Winnebago, regulation restrictions have not been as necessary on the latter lake to provide for adequate populations in the future. It has been demonstrated that Lake Winnebago sturgeon grow faster and are much heavier than fish in the upper small lakes.

The removal of freshwater drum from Lake Winnebago has been accelerated during the biennium with a high of almost three and one-half million pounds being taken during one year. Studies of this fish population made concurrently with the removal program have indicated that this record removal, which amounts to only 15 pounds per acre is yet not sufficient to increase the condition of the drum. It is conservatively estimated that at least six million pounds of drum will have to be removed annually from this population at its present level to expect more favorable conditions of the more favored game fishes.

During this period of record high removal of drum from the lake, by state crews and contract commercial fishermen, sport fishing for walleyes and saugers has been excellent. This continued good fishing has been responsible for the favorable public acceptance of the drum removal program. However, because of very successful hatches of freshwater drum noted for the past two years, a sustained removal of the drum population is imperative if any decrease is to be expected in the future.



Electrified fish seines are in the experimental stage.

#### *Lake Trout in Green Lake*

For the first time since the middle 1940's small lake trout have been caught by anglers from Big Green Lake. These originated from plantings of lake trout fingerlings which were resumed in the early 1950's after an intermission of many years. The reappearance of small lake trout in the catch which were all fin-clipped supported research findings that natural reproduction had been non-existent in this lake despite what appeared to be excellent natural conditions.

The capture of ripe and spent mature lake trout in one area of Green Lake led to continued research as to the factors responsible for the lack of spawning success. The experimental incubation of lake trout eggs in protective cages immersed in Green Lake, indicated that the eggs would hatch successfully in the area where mature lake trout were taken. Observations made in 70 feet of water with self-contained diving apparatus showed an abundant population of yellow perch and mud-puppies (*Necturus*) which literally gleaned the smooth hard-pan bottom of the spawning area of its eggs. As a result of these observations, an experimental spawning area of 200 tons of rock and rubble was placed on the spawning site to protect the trout eggs. Continued observations of this area with diving gear after the first spawning season were made. The trout used the area for spawn-



ing, good protection to the eggs was afforded by the crushed rock, and fry successfully hatched from eggs deposited naturally by the trout. To our knowledge this is the first instance of lake trout naturally produced in Green Lake.

### *Competition Between Carp and Other Game Fishes*

The introduction of carp into the United States from Europe has sometimes been called the worst mistake ever made by early fish culturists. Certainly, the carp is not one of the favorite fishes in the midwest, and much effort is expended each year for its control or eradication in inland waters. In order to determine better ways to control this fish, studies were started to measure the success of natural reproduction and early survival in mixed populations of carp, largemouth bass, bluegills and black crappies, which are commonly found in nature. A major finding from these studies was the outstanding ability of carp to survive the competition offered by mixed populations of fishes. In small ponds, the percentage survival rates of the adult fishes over a summer period were as follows: carp, 95.6; largemouth bass, 49.5; bluegill, 35.8; and black crappie, 44.0. Reproduction of young in these small ponds was highly erratic and totally unrelated to the density of the brood fish present, or to the combination of species used in the ponds. All of the species tested, with the exception of the black crappies, demonstrated a high potential of reproduction with as many as 12,000 young fish produced per acre of pond surface.

In other experiments, reproduction of carp alone in small ponds revealed a tremendous potential for natural reproduction at almost any conceivable density of brood carp. Partial control of carp populations cannot be expected to limit future hatches if environmental conditions are suitable for spawning and survival.

### *Lawrence Creek Trout Research Area*

Wild brook trout, because of their great popularity with anglers and the relative ease with which they are caught, are believed in danger of over exploitation in Wisconsin. Since angling regulations are an important tool for managing this fish, it is imperative that truly effective regulations be devised. Accordingly, Lawrence Creek was set aside to evaluate present regulations and to test new ones in order to determine those which provide the best possible angling, yet insure preservation of adequate brood stock.

During the 1955 season, a six inch minimum size limit and daily bag limit of ten trout were in effect. Under these regulations, anglers caught over 537 pounds of trout from approximately three miles of stream. The weight of the catch per acre of water exceeded catches recorded from warm water fisheries of the state. Fishermen made 1,712 trips to Lawrence Creek, totaling 495 man hours of effort per acre. This fishing intensity is more than double that recorded in a complete creel census for any lake in the state. It also exceeds that recorded for most trout streams in the nation.

In spite of the heavy pressure and large catch, the number of legal-sized trout which remained at the close of the season nearly equaled the number present when the season opened. This was possible because a large number of young trout grew up to replace those that were caught.

During the 1956 season, no minimum size limit or bag limit was in effect. Any number of trout of any size could be legally kept. Under these regulations in one section of the stream 75 per cent of the yearling and older trout which were present when the season opened were caught. In the entire portion of the stream open to fishing, 59 per cent of the yearling and older trout were caught. These data show that wild brook trout populations can be very extensively exploited.

Beginning in 1956, a fish refuge was established on the headwaters of Lawrence Creek. The trout in the refuge area are marked so that they can be recognized if they move downstream into areas open to angling. By this procedure it will be possible to determine whether a headwaters refuge area actually serves as a nursery and source of supply of trout for downstream areas, or whether it merely takes stream mileage away from the public and allows trout to be wasted by dying from natural causes.

Future work calls for testing of more restrictive regulations, and eventual determination of the best all around regulations for management of wild brook trout populations.

#### *Evaluation of Watershed Stabilization Practices*

The value of soil and water conservation practices to the nation's economy is well recognized at the present time. Improvement of the habitat for both fish and game also can be an integral part of such a watershed stabilization program. It is the purpose of this research project to determine what practices constitute the best over-all approach to improving fish habitat in the streams and rivers of Wisconsin. At the present time, most of the emphasis has been placed on trout streams and the research accordingly has been mostly concerned with trout populations.

Two streams were intensively studied during the past biennium. Black Earth Creek has been improved over the past several years mainly by stream side fencing and planting of trees and shrubs; Mt. Vernon Creek has not had any improvements and is heavily pastured to the streams edge. The fish populations in both of these streams are rather similar, with a modest native population of brown trout and a heavy population of common suckers. Both streams are stocked regularly with legal trout to maintain satisfactory trout angling.

Electro-fishing studies in both of these streams indicates that there is a varying amount of natural reproduction, due mostly to the presence or absence of late winter floods. During the trout season, fishing harvest is very heavy and the growth of fish is very rapid. Heavy exploitation of the brood stock is probably the factor limiting the trout production in both of these streams at the present time. There have been, over a three year period, no appreciable differences in the trout populations in the two streams despite the apparent change in the physical habitat which has been effected along the banks of Black Earth Creek by stream side fencing and plantings of trees and shrubs.

#### *Fish Pathology and Nutrition*

It is the responsibility of the state fish pathologist to diagnose and prescribe treatment for fish diseases that assume epidemic proportions in the state fish hatcheries. The new occurrence of kidney disease in trout was

noted during the past biennium and steps were taken to dispose of the infected individuals since there is no known cure for this disease. For many of the more common trout diseases, new medications were tested because of the development of strains of bacteria which were resistant to earlier forms of medication. Pellets of food containing proper dosages of standard drugs have increased the efficiency of treating sick fish and have resulted in better control of epidemic diseases.

The adoption of pelleted fish foods for trout has markedly increased hatchery production at considerable saving on food costs. Research was conducted during the past biennium to test and develop ingredients which increase the nutritional value of the pellet and to substitute for the necessity of feeding fresh meat occasionally. Two types of yeast, used as food supplements and as rich sources of different vitamins, were tested. *Torula* yeast was found to be equal in performance to the more expensive primary grown yeasts and have become a standard item in trout diets.

Other research was conducted during the biennium to determine the most healthy weight of hatchery trout. Hatchery trout are almost always fatter than wild trout, and it may be possible to grow a hardier hatchery trout by proper consideration of the condition factor of the hatchery trout.

#### *University Cooperative Fishery Research*

During the biennium the Conservation Department and the University have continued a cooperative program to conduct basic research on the ecology of game fishes in Wisconsin. This program has been financed by Dingell-Johnson Federal Aid funds with special facilities, personnel consultants and equipment furnished by the University. Fishery research investigators are full time employees of the University and are assisted in different phases of their programs by graduate students. Studies which have been conducted during the past biennium have included the following:

1. Biology of trout and bass. Results show strong indication that the presence of largemouth black bass in lakes has no measurable affect upon rainbow trout production. Normal high-level rates of trout production were obtained with up to 65 pounds of bass per acre of water.

2. Investigation of a yellow bass fishery. The study has revealed a number of interesting features of yellow bass ecology. Of significance for management is the possible existence of a certain degree of ecological dependency of the yellow bass upon the carp or at least upon the habitat conditions created by the carp.

3. White bass study. The sound management of the white bass fishery or in fact, of any fishery, is based upon factual knowledge of the fish and its relation to its environment. This study has given considerable insight into the ecology of the bass. Of special interest was the homing tendency (87% of recaptured fish) exhibited by 1,300 fish that were marked and displaced nearly two miles from the site of capture.

4. Study of movements and concentration of yellow perch. The development of specialized gear and techniques for use in the location of fish schools has proved to be a valuable outcome of this project. Sonar, vertical gill netting, self-contained diving equipment and underwater illumination have all played a role in tracing this elusive pelagic fish. One of the many

characteristics of the pelagic perch population defined in this study was the perch's tendency to favor the deepest portion of the basin in which there is sufficient oxygen.

5. Reactions of fishes to experimental and conventional fishing gear. This problem is being approached from two directions. First, since some of the netting gear now in field use depends upon the movement of the fish, movement and orientation are under scrutiny. The second phase of the project is designed to determine how the fish reacts to netting devices after once having been captured. Some striking differences were found between game and rough fish in this respect; for example, young carp proved to be far superior at net avoidance than were game fish (bass), especially in escapement beneath the lead line.

6. Experimental electro-fishing apparatus for rough fish control. This project is the most recent addition to the cooperative program. An electronic specialist, in cooperation with fisheries men, has tested various electrical attachments on carp seines. So far, results have been positive and encouraging; some test catches more than doubled with the use of electrification.

### Rough Fish Control

During the past biennium considerable progress has been made in rough fish control work. The Lake Winnebago sheepshead removal operations have reached an annual all-time high production of over three and one-half million pounds. This large catch of sheepshead was brought about primarily by using a new type trap net. The trawl is another device coming into use on Lake Winnebago which may increase the production of sheepshead still higher. The removal of this vast amount of sheepshead is expected to improve game fishing in the Winnebago waters.

Progress has been made in the use of poison in the eradication and control of carp. Poison was used to eradicate and control carp in Lake Mason, Adams County; Little Green Lake, Green Lake County; and Como Lake, Walworth County.

Under a cooperative project between the University of Wisconsin and the Wisconsin Conservation Department, experimental work is being done in using electricity to improve the effectiveness of our present seines. It is expected that electricity will be used very effectively to control carp in the future. The use of poison and electricity, for this type of work, is carried on only by state employed personnel.

The annual catch of carp taken from our inland waters by both state and private contract crews remains close to four million pounds. The bulk of these fish was removed by seines. Practically all carp and sheepshead removed from our waters are either sold for human consumption or animal food. The market price for human consumption for both of these species continues to be quite low and for this reason each year more of these fish are being sold to mink ranchers in Wisconsin for mink food. The private contract fisherman that is engaged only in carp removal work is finding it increasingly difficult to obtain enough revenue through the sale of these fish to finance his operations; therefore, the conservation department is extending a considerable effort in helping the private fisherman to sell his fish at the highest market price.



**This boat is a sturdy "work horse" in carp control on Lake Koshkonong.**

The improvement and protection of the habitat in many lakes located in central and southern Wisconsin depends largely on how well we can control carp. To do this job more effectively, we are continuously improving our methods and equipment. Metal and fiber glass are replacing wood boats, barges and pontoons and newly developed synthetic twine is being experimented with to replace the heavier cotton twine and rope now used in most of our seines and nets.

New and more efficient methods to save time and labor have been developed to load and transport rough fish. In addition to reducing the cost of these operations, the new methods also keep the fish in better condition for marketing.

The receipts from the sale of state caught rough fish go into the general fish and game fund. During the biennium approximately 80% of the cash of the operation was recovered.

#### **Habitat Improvement**

The habitat development and watershed program has continued to grow with an increasing interest and support from the public. More and more the public is realizing that permanent recreational opportunities can only come about if the proper habitat is available for fish and game.



The habitat improvement program of the division has operated on a slightly reduced budget from the previous biennium. The activity is financed by Dingell-Johnson federal aid funds. These funds are obtained from an excise tax on fishing equipment.

One of the most important events during the biennium was the adoption of a *Watershed Management Policy* by the Conservation Commission. The policy sets forth statements on the Conservation Act, Cooperation, Watershed Definitions, Local Incentive, Objectives, Watershed Associations and Coordination. The objectives are of special importance and are as follows:

**Objectives Stated:** In co-operation with the programs to prevent soil erosion and encourage good watershed development, it is the policy of the Conservation Commission to fulfill its responsibilities in research, demonstration, education and information, protection, enforcement, restoration, development, management and co-operation. This policy will find expression in three action categories as follows:

(1) On state-owned lands under the supervision and management of the Conservation Commission a land management plan will be prepared and followed as closely as possible to prevent soil erosion and property damage.

(2) Habitat management projects in which certain limited alterations are to be made within a definite area of land or water for the benefit of fish or game (but not including all resource management on an over-all watershed basis) will be continued wherever necessary and feasible. The primary impetus for these projects would come from the Conservation Department or co-operating groups and individuals, and would be aimed at improving or maintaining fish habitat in or immediately adjacent to streams or water bodies or for game in local game areas. Wherever possible, these projects will be correlated to assist soil and water conservation plans in local community watersheds.

(3) Whenever an understanding has been arrived at with the agencies mentioned in the third paragraph of this policy as to the desirability of undertaking a local Co-operative Watershed Management Project for the integrated management of all its natural resources, the Conservation Commission shall be so advised.

The watershed approach has resulted in the formation of fifteen additional watershed associations during the biennium, bringing the total of organized watershed associations to fifty-one. The recent federal Small Watershed Act, P.L. 566, which provides federal assistance in stabilizing watersheds, is stimulating the organization of watershed groups. The department is demonstrating watershed stabilizing techniques and habitat development on sixteen major watersheds, as well as cooperating with other agencies on watersheds approved under the Small Watershed Act. The activity on major projects has added almost 16 miles of waterway and now 92.7 miles of stream protective zone has been acquired and under state control. In addition, approximately 30 miles of stream are under state control on the projects in cooperation with local groups. The tree planting was increased on the project areas and 1,564,462 trees and 196,170 shrubs have been planted. Approximately 131 miles of fencing has been constructed to bound the stream protective zone.





**Log crib shelters such as this often are built on lakes, usually in cooperation with local sportsmen. Sunk into the water, these shelters improve the habitat of lakes that lack weeds or other cover.**

Many of the cooperative groups have increased activity as interest has developed. The organized watersheds have applied for more and more conservation plans and have placed the plans in operation.

A summary of major projects is shown in the accompanying table. It lists the activity and progress on each major project.

Another activity which has developed during the biennium is that of log crib shelter installation in selected lakes. These log cribs are intended to aid the cover requirements of fishes in those clear water lakes with a shortage of cover. The log cribs also concentrate fish and increase the opportunities for fish harvest. Approximately 500 log cribs have been constructed and installed during the biennium.

#### **Land Acquisition**

The land acquisition program of the division during the biennium has been very moderate. Approximately \$12,000 of Dingell-Johnson funds were budgeted each year. Slightly over 1,970 acres of land were purchased at a cost of \$50,335.00. The excess funds required above the division budget were obtained from Pittmann-Robertson funds and the Public Fishing Ground Fund. The selected purchases were intended to provide public

access and a waterway protection area to selected areas having high recreational values. The land acquisitions are listed in the following table.

### LAND ACQUISITION PROJECTS

Name	Vendor	No.	Acres	Cost
Weirgor Conservation Area	Goldbeck	FW-2-L-1	280.00	\$ 1,400.00
Weirgor Conservation Area	Kwdosz	FW-2-L-1	112.00	850.00
Weirgor Conservation Area	Vitcenda	FW-2-L-2	40.00	200.00
Willow Creek	Anderson	FW-3-L-1	52.00	1,040.00
Willow Creek	Florsch		1.35	40.00
Willow Creek	Keup Estate	FW-3-L-2	160.00	8,000.00
Willow Creek	Rydzanowski	FW-3-L-2	200.00	6,500.00
Willow Creek	Murtz	FW-3-L-2	16.80	350.00
Woods Flowage Conservation Area	Folkendahl	FW-4-L-1	2.00	75.00
Woods Flowage Conservation Area	Rath	FW-4-L-2	80.00	2,500.00
Dalton Creek Watershed	Rector	F-5-L-1	80.00	2,000.00
Nichols Creek Conservation Area	Faas	FW-5-L-1	69.34	4,730.00
Dell Creek	Green	FW-6-L-1	40.00	500.00
Dell Creek	Hammond	FW-6-L-1	35.73	500.00
Dell Creek	Flemming	FW-6-L-2	40.00	500.00
Dell Creek	Gluth	FW-6-L-2	34.40	700.00
Dell Creek	Foster	FW-6-L-2	40.00	650.00
Dell Creek	Flynn	FW-6-L-3	9.20	600.00
Dell Creek	Gallagher	FW-6-L-3	194.80	6,800.00
Dell Creek	Woefel	FW-6-L-4	99.94	2,100.00
Eddy Creek Public Fishing Grounds	Olson	F-11-L-1	183.22	3,500.00
Mount Hope Conservation Area	Non D-J			
	Vinger		200.00	6,800.00
Totals			1,970.78	\$50,335.00

### LAKE REHABILITATION

Lake rehabilitation is the elimination or severe reduction of undesirable fish populations usually followed by stocking with desirable fishes. It is, at present, most often undertaken when other methods of management prove inadequate. The activity is designed to shift population composition to fish species wanted by the angler and/or to improve the size of the desirable species present. Although yet often viewed as a drastic measure, it is in many cases the only satisfactory step available. Its increasing acceptance by the public is becoming ever more apparent.

The basic biological principal involved is that a lake can support only a limited poundage of fish. When cropped for sport only, most or all fish populations are constantly at or near this limit. Competition for food and space, and predation, are thus at a maximum. This generally prevents high survival and/or rapid growth of young fish whether naturally reproduced or stocked artificially. To improve angling conditions, the existing fish populations must be severely reduced or eliminated, in order to allow for better survival and/or improved growth of the desired species.

Fish species usually causing the greatest problems in our state include the bluegill, crappies, yellow perch, bullheads and carp. The panfish often

## DINGELL-JOHNSON—STATE DEMONSTRATION WATERSHEDS

To July 1, 1956

**Purpose:** Provide food, cover, spawning grounds, improved water quality for fish. Reduce siltation. Protect waterway zone from erosion and develop game habitat in zone. Protect upland areas with tree and shrub plantings. Protect and develop springheads. Plan and develop areas cooperatively with other state, federal and local agencies.

Watershed—County	Acres Leased (*) Owned (**)	Length of Waterway Controlled (Rods)	Trees Planted	Shrubs Planted	Fencing (Rods)	Channel and Bank Devices	Bank Stabilization Lineal Feet * Square Feet **
<i>Area I</i>							
Weirgor River.....	14*						
Sawyer County.....	1,820**	3,000	16,100	3,000	125	667	\$ 1,350*
Devils Creek.....	139*						
Rusk County.....	80**	810	16,000	2,000	2,400	45	
Beaver Brook.....							
Washburn County.....	789**	1,600	8,000	5,000		132	
Sand Creek.....							
Chippewa County.....	78*	1,845	21,650	500	3,041	18	
Whittlesey Creek.....	In process—pilot watershed on Lake Superior drainage. Watershed association formed.						
Bayfield County.....							
Squaw Creek Baier.....							
Sawyer County.....	Easement (Northern pike barrier on Square Creek)						
Elk Creek.....							
Chippewa County.....	23*	654	7,200		1,096	2	255*
<i>Area II</i>							
So. Br. Oconto River.....							
Oconto County.....	635*	3,076	289,066		4,161	58	61,437**
Prairie River.....							
Lincoln County.....	105*	2,727	61,294	800	3,766	140	1,197**
Pover River.....	387*						
Marathon County.....	140**	1,651	26,840		4,365	209	
<i>Area III</i>							
Kinnickinnic River.....							\$12,435*
Pierce County.....	315*	4,506	58,810	5,875	8,029	220	15,000
Bohemian Valley Watershed.....	36*	541			985	8	5,222*
Vernon County—La Crosse County.....							

DINGELL-JOHNSON—STATE DEMONSTRATION WATERSHEDS—Continued

To July 1, 1956

<i>Watershed-County</i>	<i>Acres Leased (*) Owned (**)</i>	<i>Length of Waterway Controlled (Rods)</i>	<i>Trees Planted</i>	<i>Shrubs Planted</i>	<i>Fencing (Rods)</i>	<i>Channel and Bank Devices</i>	<i>Bank Stabilization Lineal Feet * Square Feet **</i>
<i>Area IV</i>							
Willow Creek.....	81*						7,337*
Waushara County.....	429**	3,493	76,724	47,345	2,834	1,902	6,844**
Radley Creek.....	5*	132	1,510	3,100	185	22	4,050**
Waupaca County.....	74*	2,541	11,840	10,855	2,636	1,876	5,929*
Peterson Creek.....	10.5*	445	125		33	19	1,200**
Portage County.....	9.0*	240	600	200	290	3	313*
Carpenter Creek.....							
Waushara County.....							
<i>Area V</i>							
Black Earth Creek.....	70*						
Dane County.....	3.9**	2,875	284,303	77,095	4,927	215	
Dell Creek.....	227*						
Sauk and Juneau Counties.....	155**	2,227	540,400	40,400	3,189	27	4,550*
Totals.....	2,409* 3,417**	29,663 92.7 miles	1,564,462	196,170	42,062 131.4 miles	5,563	37,078* 89,728**

[ 127 ]

are encountered as abundant, slow growing populations. This results in (1) panfish of an undesirable average size for the angler and, (2) a decrease in the natural reproduction of desirable game fish. Carp compete with the more desirable fishes, thus lowering the capacity of lakes to produce such species.

Rehabilitation of natural lakes is presently undertaken by using chemicals that kill all species of fish. When a lake is suitable and trout are considered more desirable than other species, they are introduced from hatchery stocks after the toxicant has dissipated. Since little or no natural reproduction occurs, constant replenishment of the population through the stocking of hatchery-reared fish is necessary. Where warm-water fish are desired, brood fish or artificially propagated fry or fingerlings of the species best suited are stocked. Annual maintenance plantings are not necessary since, once properly started, natural reproduction is generally adequate to sustain the population.

Rehabilitation of flowages or artificial lakes is undertaken by draining the lake, drainage and chemical treatment of the remaining waters or drainage and removal of fish with mechanical and/or electrical devices. Rehabilitation of such waters is much more difficult than in landlocked lakes because of constant inflow of water. Artificial lakes are usually managed for warm-water species.



Equipment such as this is used to distribute toxicant, where it is feasible to destroy stunted fish or undesirable species and then re-stock.

During most of the biennium, rotenone was the toxicant used to kill fish in lake rehabilitation projects. Recently, however, an agricultural insecticide, toxaphene, was tested and appears to be much more effective under certain conditions. It is also more economical to use. Low cost is of increasing importance as the number and size of lakes treated continues to increase. Depending on conditions, rotenone dissipates in from one to twelve weeks, while toxaphene may kill fish up to a year after treatment.

During the 1952-54 biennium, six lakes in nine counties of the state, totalling 578 acres of water, were rehabilitated. During this biennium, seventeen lakes with a total surface acreage of 1,883 acres were so treated.

<i>Water</i>	<i>County</i>	<i>Size in Acres</i>	<i>Restocked with</i>
North Freedom Millpond.....	Sauk	30	northern pike, largemouth bass
Hooper's Millpond.....	Jefferson	20	largemouth bass
Yellowstone Lake.....	Lafayette	455	walleye, largemouth bass, catfish
Sunset Lake.....	Portage	67	rainbow trout, brook trout
Marshfield Pond.....	Wood	7	largemouth bass, bluegills
Sherwood Lake.....	Clark	147	largemouth bass, northern pike
Battle Point Flowage.....	Jackson	20	largemouth bass, northern pike
Teal Flowage.....	Jackson	14	largemouth bass
Mason Lake.....	Adams	933	largemouth bass, bluegills, northern pike
Bug Lake.....	Forest	10	brook trout
Moraine Lake.....	Lincoln	10	brook trout
Tozer Lake.....	Washburn	42	brook trout, rainbow trout
Bass Lake.....	Price	20	largemouth bass
Dark Lake.....	Chippewa	21	rainbow trout, brook trout
Sawmill Lake.....	Washburn	22	rainbow trout
Long Lake.....	Bayfield	40	brook trout, rainbow trout, largemouth bass
Big Twin Lake.....	Polk	25	rainbow trout

Although most rehabilitation projects are directed at undesirable populations, there are generally some desirable fish killed. To avoid this undue wastage of fish flesh, more research is needed to find and test chemicals specifically toxic to given species. In addition, legislative authority is needed to allow commercial fishing of certain troublesome fish, in specific waters, presently immune to such action. Commercial removal of non-rough fish species under closely controlled operations appears to hold much promise. It is likely that a change in species composition and/or an increased average size of desirable species could be achieved in many cases through this approach. When such information and authority is available, we shall be in a much better position to effectively manage lakes for better angling.

Until that time, however, present lake rehabilitation techniques offer wide possibilities in management. Increasing public acceptance of this tool, refinement in technique and more knowledge of lake ecology and proper stocking rates with increasing experience all point towards a favorable future.



## GREAT LAKES FISHERIES

### *Records and Statistics*

One of the major functions of this activity is the compilation of statistics on the commercial catch of fish for the outlying waters of Wisconsin. These records, which have been kept since 1936, have shown the changes of populations and trends of fishing, and have been a guide to the fish management practices used by both the Wisconsin Conservation Department and the U. S. Fish and Wildlife Service.

The total commercial catch of all species of fish from the Great Lakes (Wisconsin waters), is as follows:

	1954	
	<i>Pounds</i>	<i>Value</i>
Lake Michigan.....	14,359,377	\$1,503,286.37
Lake Superior.....	6,509,770	653,797.44
Total.....	20,869,147	\$2,157,083.81
	1955	
	<i>Pounds</i>	<i>Value</i>
Lake Michigan.....	14,556,533	\$1,522,887.77
Lake Superior.....	5,657,545	774,517.85
Total.....	20,214,078	\$2,297,405.62

### *Lamprey Control*

Three lamprey control devices were operated in 1953 by the Wisconsin Conservation Department. This program was expanded in 1954 in cooperation with the U. S. Fish and Wildlife Service. Six new weirs were installed in streams tributary to Lake Michigan and Green Bay, and two of the three screen-type traps were converted to the more modern electro-mechanical weirs. The U. S. Fish and Wildlife Service installed these traps and they were operated by Wisconsin Conservation Department personnel. Several power failures occurred at the East Twin weir, due to the high conductivity of the water. This was remedied by rewiring the installation and the use of heavier fuses. A sucker kill at the Pensaukee trap was caused by an eddy holding the fish in the electrical field. This condition was alleviated by rearranging the electrodes.

In 1956, two weirs were installed in streams tributary to Lake Superior, under the same cooperative program with the U. S. Fish and Wildlife Service. Severe flooding of these streams made it impossible to keep these two weirs in continuous operation. A large sucker mortality created a major public relations problem in the Ashland-Odanah area. Plans have been made which we hope will correct these two problems, prior to the 1957 lamprey trapping operations. In spite of a sucker mortality on the Pensaukee River and several cases of vandalism in Door County, the 1956 lamprey control program in the Lake Michigan, Green Bay area was successful.

The following table shows the lamprey catch by streams for 1955 and 1956:

<i>Stream</i>	1955	1956
Hibbard's Creek	6,395	5,325
East Twin River	7,557	12,131
Kewaunee River	5,125	2,286
Three Mile Creek	1,945	1,473
Lilly Bay Creek	66	40
Ephraim Creek	13	7
Shivering Sands Creek*		2
Pensaukee River	893	1,099
Little River	128	412
White River**		219
Bad River**		685
Total catch	22,122	23,679

\*Shivering Sands Creek trap, installed 1955, but not operated until 1956, due to controversy over land ownership.

\*\*Bad and White Rivers, Tributary to Lake Superior, 1956 first year of operation.

### *Investigations \**

Investigation of problems in the commercial fishery of the Great Lakes, resulted in the following changes in regulations:

1. Closed season on suckers discontinued.
2. Trap nets legalized in Green Bay and Lake Michigan.
3. The line demarking southern Green Bay, moved northward to utilize an area not extensively fished because of regulations restricting gear.
4. Commercial fishermen restricted from fishing in the Sand Bay area (Door County) from June 15th to September 15th of each year. (Sport fishing conflict)
5. Commercial fishermen restricted from fishing within one mile of the mouths of the Onion and Sioux Rivers to give migratory rainbow and brown trout better access to streams.
6. Brown trout (Sebago salmon) and walleyes taken off of the commercial list in Lake Superior.
7. New licensing law passed by the legislature to become effective when Michigan passes similar legislation.

The growth study on perch in southern Green Bay was continued. These data are being compiled by Mr. Lenard Joeris of the U. S. Fish and Wildlife Service. A fall perch tagging plan in the vicinity of Marinette, proved unsuccessful, these fish were taken in waters of such depth, that it was impossible for them to swim down from the surface.

### *Finclipped Lake Trout*

The study involving finclipped lake trout in Lake Superior, has been continued. Results have shown that hatchery reared lake trout planted in the spring at a length of six inches, attain a legal or 17" size, 32 months after planting. Since the start of the lake trout planting and marking program in 1952, over one million of these finclipped lake trout have been planted in the Apostle Island area of Lake Superior. Through the coopera-

tion of commercial fishermen, 894 finclipped lake trout have been reported—626 being over 17 inches in length. This represents only a portion of the finclip recoveries made however, since all commercial fishermen are not reporting finclipped fish.

#### *Whitefish Tagging Study*

In the summer of 1955, a whitefish tagging study was initiated in Lake Superior. A total of 1,735 whitefish were tagged and released in the Apostle Island area to determine the rate of growth and migratory habits. Size of the tagged fish ranged from 14 to 16 inches. Since the start of the program, 43 tag returns have been recovered. All 43 tag recoveries were made within the Apostle Island area. Greatest distance traveled was 23 miles.

Results obtained during this 16 month period indicate an average growth of a tenth of an inch per month.

#### *Sea Lamprey Scarring Index*

An investigation of the incidence of lamprey scarring on adult lake trout observed in spawn taking operations in the Apostle Island area, was continued during the past season. The following table shows the incidence of scarring over the past years.

<i>Year</i>	<i>Pounds, Lake Trout</i>	<i>Number of Fish</i>	<i>Number of Fish Scarred</i>	<i>Percent of Total Scarred</i>
1952.....	3,464	470	49	10.4
1953.....	1,240	137	12	8.8
1954.....	2,377	292	48	16.4
1955.....	3,449	459	165	36.0

#### *Permits for Specialized Fishing*

The regular permits which allow specialized fishing in bounded bays and during the periods in which no nets are allowed, were issued. Three fishermen were issued permits for experimental trawling for smelt, but this type of fishing proved unsuccessful. Several requests have been received for permits to trawl for herring, and with progress in mind, the Wisconsin Conservation Department agreed to allow such experimental fishing. These permits will be issued in the near future.

### GREAT LAKES FISHERY COMMISSION

In 1954 the United States and the Dominion of Canada enacted the Great Lakes Treaty. The basic purpose of the Treaty is to bring about a concentrated effort to control the sea lamprey and to carry on a research program in order to properly manage the fisheries of the Great Lakes. In the event that the sea lamprey can be brought under control, a program of rehabilitation of lake trout in Lakes Huron, Michigan and Superior will follow.

Under the provisions of the Convention of the Great Lakes Treaty, a Great Lakes Fishery Commission was created. Each country is given the privilege of appointing three commissioners to serve on this important body and President Eisenhower appointed Conservation Director L. P. Voigt of Wisconsin as one of the members of this Commission. It is expected by the Great Lakes States that the Great Lakes Fishery Commission will provide the leadership necessary for uniform and concerted effort to properly manage the Great Lakes fishery which is of great economic importance to all concerned.

### MISSISSIPPI RIVER

The Mississippi River is a major water way of historic importance to Wisconsin. During the 1930's a series of navigational lock and dam structures were constructed. As a result, the original river channel was transformed into a series of flowages totalling about 180,000 acres in surface area.

The fishery resource of this water is large and varied. Commercial fishing of certain species is of considerable importance. During the calendar years 1954 and 1955 the following species and amounts were taken by commercial fishermen from Wisconsin:

Species	Total Weight and Pounds Est. Value in Dollars			
	1954		1955	
	Weight	Value	Weight	Value
Carp .....	1,158,279	\$ 69,496.00	.....	.....
Buffalo .....	395,884	55,423.00	.....	.....
White Carp .....	27,238	1,634.00	.....	.....
Suckers .....	52,126	2,085.00	.....	.....
Sheepshead .....	286,593	34,391.00	.....	.....
Bullheads .....	12,322	1,971.00	.....	.....
Catfishes .....	498,627	119,670.00	.....	.....
All other species .....	37,002	1,768.00	.....	.....
Totals .....	2,468,071	\$286,438.00	.....	.....

Commercial fishing is of economic benefit to the area. It is also considered to be good management from the standpoint of cropping fish populations not adequately harvested by the sports fisherman. In general, the sports angler accepts the commercial fishing viewpoint.

Recreational anglers have a large array of species from which to choose. All major warm water game and panfish except the muskellunge are represented. Through past creel censuses it was found that bluegills and crappies made up about 50% of the catch. Important larger game fish species include the channel catfish, walleye, sauger, and northern pike.

The Upper Mississippi River Conservation Committee is a group composed of representatives from Minnesota, Iowa, Missouri, Illinois, Wisconsin, the U. S. Fish and Wildlife Service and the U. S. Corps of Engineers. Because of the size, complexity and inter-state political features of the river, a joint approach to investigation and management of the fish and game resources is necessary. This group, since its inception in 1943, has

attempted to fulfill that purpose. Recommendations of the committee are submitted to the various states for action toward effective and uniform management of the resources involved.

Past work has brought about the adoption of standard reporting of commercial fishing statistics, a reciprocal fishing rights agreement between Wisconsin and Minnesota, netting surveys and creel censuses to assist in measurement of the sport catch and other important results.

From about 1950 to the end of this biennium, the U.M.R.C.C. field program was inactive due to budgetary and other considerations. Consolidation and reporting of collected information was continued, however, and the committee continued to meet annually.

In January 1956, the committee proposed reactivation of the investigational program. Cooperative plans between the states involved were worked out and approved. The U. S. Fish and Wildlife Service was asked to provide an experienced man to act as project coordinator. This was also approved.

In order to proceed cautiously, until full coordination of the survey program can be obtained, the first plans are limited to creel census, aerial angler counts and test netting. The immediate objectives are to attempt to measure angler use of the river, angler success, present points of fishermen concentrations and to learn more of the overall fish populations. One of the most important purposes is to determine the best angling and boating areas of the river for possible use as a guide in future access programs.

Wisconsin did not enter the field program until July, 1956. Hence, results of the above activities will be reported in the next biennial report.

Commission orders affecting fishing in the Mississippi River are reviewed and modified as needed every other year. Two hearings are held to sample public opinion, one for Wisconsin-Minnesota waters and one for Wisconsin-Iowa waters. The most recent hearings were held in May, 1955, at Ellsworth and Prairie du Chien. Department recommendations were accepted by the public almost in their entirety. In general, fishing regulations for the Mississippi River are advanced to the point of needing relatively little change until further investigation points up the desirability for such action.

## PROPAGATION AND STOCKING

Previous reports have indicated, the trend in fish management today is considerably different in regard to propagation and stocking than it was a decade ago. Although fish stocking is considered an important tool in fish management, as evidenced by expenditures for this activity in the fish management budget, by no means is it the complete answer to lake and stream management for better fishing. During 1955, 30½¢ out of every fish management dollar was spent for fish propagation purposes. Although trout propagation receives considerable emphasis from the Fish Management Division, the trend during the past two years has been toward the production of larger sized fish and a reduction in the number of fish stocked. This trend is also reflected in the production and distribution of warm-water fish species. The only warm-water fish propagated by the Fish Man-



agement Division in the past biennium has been the walleye and muskellunge. Propagation of northern pike has been discontinued although some transfer work has been conducted from muskellunge waters which have been invaded by northern pike.

Bass, perch, bullheads, catfish and panfish are not stocked by the Fish Management Division except as an introduction and in children's fishing ponds which are set up under a special permit system so that youngsters can acquaint themselves with fishing methods and fishing laws. Walleyes and muskellunge are stocked as fingerlings and yearlings which are reared in ponds; however, a small number of walleye and muskellunge fry are stocked annually in lakes which have lost their native populations of this species. Fry stocking is carried out only as an introductory measure after a freeze-out or similar catastrophe or to introduce the species in a lake that has been treated with a toxicant.

The present direction of the stocking program in the State of Wisconsin is predicted on the North American Fish Policy which was adopted by the American Fisheries Society at its meeting in September 1954. The Conservation Commission endorsed this policy at one of its meetings in 1955, and therefore, provided the Fish Management Division with a new policy direction for fish stocking.

In Article IV of the North American Fish Policy, it is stated that "food, game, and forage fishes reared at public expense should be stocked only for public benefit; private fish culture should be encouraged to supply privately owned waters. Only fish free of objectionable diseases and parasites should be used for stocking. Periodic replanting is desirable of lakes that winter-kill infrequently or of waters which are occasionally depleted by pollution; otherwise the stocking of the young of any species in waters having adequate spawning conditions is considered of doubtful value. The introduction of exotic species is proper where adequate biological investigation has demonstrated the need and the suitability of the environment including the possible effects on contiguous waters.

"Planting catchable fish in waters where reproduction is lacking and where environmental deficiencies cannot be remedied, is recommended if those who benefit pay the cost of such stocking. Elsewhere public agencies should limit the harvest to the extent that good sport will be maintained by natural spawning. In heavily used waters, fishing for game species must be regarded as a source of recreation, not meat. Private fish culture should be encouraged to provide fish for the table and for those who must have, and will pay for, a full creel."

With this new direction in mind the Fish Management Division subsequently reviewed its past stocking activity and recommended a discontinuation of the general maintenance stocking program. This program called for annual restocking of lakes with walleyes, muskellunge and northern pike. In some portions of the state, walleye stocking was considered uneconomical and ineffective and therefore was discontinued. In other portions of the state the program was carried out to satisfy local demands and also for rehabilitation work.



Trout stocking was continued in lakes and streams under the provisions of the new trout policy adopted by the Conservation Commission in 1953. All stream stocking of trout was carried out by supplying fish of legal size. Fingerling sized trout were stocked in lakes and some spring ponds. New techniques in trout propagation included the improvement of the trout pellet, which is now fed extensively at the various state hatcheries and has improved the poundage production at all state stations tremendously. New equipment at the various trout stations also facilitates the sorting of trout and easy preparation for distribution.

#### CONSERVATION CONGRESS AND STUDY COMMITTEES

During the biennium close work with the Conservation Congress was continued. There were two study committees appointed for fish management, one dealing with fish in general and the other a trout committee. In view of the fact that so many of the activities overlap, joint meetings of the committees were held. In order that the committees be more fully acquainted with the problems in fish management, a number of field trips were held and projects visited by the committee and thoroughly reviewed. It is felt that the committees now have a sound understanding of the problems involved and are in a better position to assist in them. In addition, the Conservation Congress is represented on the Great Lakes Advisory Committee which also has held several meetings and discussed problems with reference to management of the Great Lakes. The work of this committee has been an outstanding contribution in the management of the Great Lakes fishery.

## Clerical

The clerical division is composed of four sections—typing, stenographic, mail and supply, and filing. It includes personnel not only in the Madison office but in all of the five conservation area headquarters and thirteen other offices throughout the state. The thirteenth office was added recently when a new forest protection district was formed with headquarters at Wautoma. The concentration of other division field personnel at that point necessitated the establishment of a new clerical position.

The constant expansion of all of the divisions of the department is reflected in the increased work load of the clerical division, which is a service division of the department. Rapid personnel turn-over necessitated the use of University students and other part-time help to accomplish the assignments within the allotted period. As in the past, additional labor-saving devices were purchased to speed up the work and to partly compensate for the lack of personnel. A Pitney-Bowes mail opener speeds up the delivery of mail; three electric typewriters make special tasks easier and neater; and a copying machine relieves the stenographers and typists of tedious and time-consuming copy work. Six dictaphones were purchased for use in three of the area offices where work is heavy and there is inadequate stenographic assistance, in the Tomahawk office, and in the Madison office where they provide greater flexibility in the work assignments. A Teleprinter was installed to speed up the sending and receiving of telegrams.

A new bus was purchased to provide more efficient and comfortable transportation of the clerical employees who work in the Nevin office.

The time-study which required the use of time-tickets for the clerical division was completed during this period and the tickets were discontinued.

The untimely death of Donald Severson, an employe in the mail and supply section, was a great shock and loss to the entire division.

STENROBOL MEMORIAL LIBRARY

## Finance

### FINANCIAL REPORT 1954-1955

Exhibit A

#### CONSERVATION FUND

#### BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE OVER-ALL CONSERVATION FUND FOR THE FISCAL YEAR 1954-1955

[ 138 ]

Appropriation:	Balance Forwarded From 1953-1954	Plus Revenue 1954-1955	Minus Disbursements 1954-1955	Plus Transfers 1954-1955	Minus Transfers 1954-1955	Balance Forwarded To 1955-1956
Fish and Game.....	\$ 944,806.20	\$4,513,671.31		(a) \$297,346.13 (b) 18,168.29 (c) 22,584.14 (d) 132,152.68 (e) 546,856.85	(b) \$ 9,500.00 (g) 39,940.07 (h) 6,000.00 (i) 4,162,989.18 (j) 164,704.66 (k) 45,430.75 (l) 203,100.00 (t) 40,000.00 (u) 473,070.72	\$ 1,330,851.22
Wildlife Research and Education.....			9,500.00	(b) 9,500.00		
Water Pollution Costs.....			39,940.07	(g) 39,940.07		
Water Regulatory Costs.....			6,000.00	(h) 6,000.00		
Fish and Game Operating.....	297,347.13		3,875,946.64	(i) 4,162,989.18 (j) 164,704.66	(a) 297,347.13	(v) 287,042.54
Retirement Contributions—Fish and Game			164,704.66	(j) 164,704.66		
Cancelled Drafts.....	3,390.71	2,419.38	340.59			5,469.50
Fire Loss.....	3,869.70	9,367.65	2,668.11			10,569.24
Bounties—Fox.....			45,430.75	(k) 45,430.75		
Recreational Advertising.....	18,168.29		198,598.81	(l) 203,100.00	(b) 18,168.29	(v) 4,501.19
Imprest Fund Advance.....	5,000.00					5,000.00
Federal Aid—Clarke—McNary.....		328,010.00			(n) 328,010.00	
Federal Aid—Pittman—Robertson and Dingell—Johnson.....		546,856.85			(e) 546,856.85	
Public Hunting and Fishing Grounds—Sportsmen's Licenses.....	124,085.42	97,212.75	104,464.10			116,834.07
Forestry.....	1,296,476.26	3,014,131.50		(m) 229,143.00 (n) 328,010.00	(o) 211,915.35 (p) 105,957.68 (q) 216,274.98 (r) 2,694,466.75 (s) 115,409.52	1,523,736.48 142,153.10 83,275.36
Southern Wisconsin Forests.....	105,678.42		175,440.67	(o) 211,915.35		
Kettle Moraine Land.....	36,854.88		59,537.20	(p) 105,957.68		
County Forest Aid.....			216,274.98	(q) 216,274.98		
Forestry Operating.....	229,143.00		2,471,699.06	(r) 2,694,466.75	(m) 229,143.00	(w) 222,767.69
Retirement Contributions—Forestry.....			115,409.52	(s) 115,409.52		
Forestry Reserve.....	300,000.00					300,000.00
Bear and Deer Damage.....	22,584.14		40,000.00	(t) 40,000.00	(c) 22,584.14	
State Parks.....	132,152.68		471,201.82	(u) 473,070.72	(d) 132,152.68	(v) 1,868.90
<b>TOTAL CONSERVATION FUND.....</b>	<b>\$3,519,556.83</b>	<b>\$8,511,669.44</b>	<b>\$7,997,156.98</b>	<b>\$10,063,021.75</b>	<b>\$10,063,021.75</b>	<b>\$ 4,034,069.29</b>

## CONSERVATION FUND

## Transfers

- (a) 297,347.13 is prior year Fish and Game Operating balance which reverts to Fish and Game Appropriation.
- (b) 18,168.29 is prior year Recreational Advertising balance which reverts to Fish and Game Appropriation.
- (c) 22,584.14 is prior year Bear and Deer Damage balance which reverts to Fish and Game Appropriation.
- (d) 132,152.68 is prior year State Parks balance which reverts to Fish and Game Appropriation.
- (e) 546,856.85 transferred from Fish and Game from Federal Aid—Pittman—Robertson and Dingell—Johnson.
- (f) 9,500.00 transferred from Fish and Game to Wildlife Research and Education as 1954—1955 appropriation.
- (g) 39,940.07 transferred from Fish and Game to Water Pollution Costs as 1954—1955 appropriation.
- (h) 6,000.00 transferred from Fish and Game to Water Regulatory Costs as 1954—1955 appropriation.
- (i) 4,162,989.18 transferred from Fish and Game to Fish and Game Operating as 1954—1955 appropriation.
- (j) 164,704.66 transferred from Fish and Game to Retirement Contributions—Fish and Game as 1954—1955 sum sufficient appropriation.
- (k) 45,430.75 transferred from Fish and Game to Bounties—Fox to cover payment of 1/2 of the 1954—1955 fox bounties.
- (l) 203,100.00 transferred from Fish and Game to Recreational Advertising as 1954—1955 appropriation.
- (m) 229,143.00 is prior year Forestry Operating balance which reverts to Forestry Appropriation.
- (n) 328,010.00 transferred to Forestry from Federal Aid—Clarke—McNary.
- (o) 211,915.35 transferred from Forestry to Southern Wisconsin Forests as 1954—1955 appropriation.
- (p) 105,957.68 transferred from Forestry to Kettle Moraine Land as 1954—1955 appropriation.
- (q) 216,274.98 transferred from Forestry to County Forest Aid as 1954—1955 sum sufficient appropriation.
- (r) 2,694,466.75 transferred from Forestry to Forestry Operating as 1954—1955 appropriation.
- (s) 115,409.52 transferred from Forestry to Retirement Contributions—Forestry as 1954—1955 sum sufficient appropriation.
- (t) 40,000.00 transferred from Fish and Game to Bear and Deer Damage as 1954—1955 appropriation.
- (u) 473,070.72 transferred from Fish and Game to State Parks as 1954—1955 appropriation.
- (v) Balances revert to Fish and Game Appropriation.
- (w) Balance reverts to Forestry Appropriation.

**CONSERVATION FUND**  
**Revenue**

	<i>Net Revenue 1954-1955</i>
<b>FISH AND GAME</b>	
<b>Fishing Licenses</b>	\$ 263.20
Fish Shipping Coupons	226,215.75
Nonresident Combination 10 Day Fishing Licenses	1,176,073.70
Nonresident Fishing Licenses	656,570.62
Resident Fishing Licenses	11,530.00
Great Lakes Commercial Fishing Licenses	5,765.00
Bait Dealers' Licenses	5,172.00
Mississippi River Commercial Licenses and Tags	2,150.00
Private Fish Hatchery Licenses	1,597.50
Slat Net Licenses and Tags	5,225.00
Wholesale Fish Dealer Licenses	520.00
Trammel Net Licenses	972.95
Bank Pole Fishing Licenses	585.00
Cisco Licenses	3,558.30
Set Line Licenses and Tags	11,960.00
Sturgeon Tags	18.00
Bait Net Licenses	
<b>Game Licenses</b>	634,636.10
Resident Hunting Licenses—Small Game	492,097.60
Resident Hunting Licenses—Big Game	44,938.25
Nonresident Hunting Licenses—Small Game	56,101.00
Nonresident Hunting Licenses—Big Game	13,661.20
Nonresident Hunting Licenses—Archers	2,570.00
Nonresident Shooting Preserve Hunting Licenses	796.20
Shooting Preserve Licenses and Tags	540.00
Settlers' Hunting Licenses—Small Game	562.50
Settlers' Hunting Licenses—Big Game	11,121.80
Trapping Licenses	37,739.46
Trap Tags	8,235.50
Beaver Trapping Licenses and Tags	2,050.00
Deer Farm Licenses	474.05
Dead and Live Deer Tags	51.00
Deer Dealer Licenses	4,220.00
Resident Fur Dealer Licenses	2,261.92
Game Farm Licenses and Tags	7,367.18
Muskrat Farm Licenses and Tags	181.78
Beaver Farm Licenses and Tags	518.78
Otter, Raccoon, Mink and Skunk Farm Licenses and Tags	9,545.73
Raccoon Tags	164,541.00
Voluntary Sportsmen's Licenses	
<b>Other Licenses</b>	7,307.30
Christmas Tree Dealer Licenses and Tags	1,549.00
Duplicate Licenses	960.00
Guide Licenses	54.00
Scientific Certificates	520.00
Taxidermist Licenses	
<b>Miscellaneous</b>	3,748.15
Warden and Witness Fees	18,975.80
Rent and Rentals	15,106.38
Employee Rents and Accommodation Services	1,797.72
Activity Services	1,106.53
Supervision and Inspection Services	39,444.88
Sale of Resources	29,463.00
Sale of Confiscations and Seizures	8,827.93
Sale of Produced or Processed Items	4,953.67
Sale of Equipment	5,503.96
Sale of Supplies	24,312.00
Sale of Buildings and Structures	869.01
Sale of Signs	820.21
Sale of Salvage and Scrap	158,312.92
Sale of Rough Fish	6,568.80
Commission on Sale of Rough Fish	6.00
Sale of Other Items	699.60
Gifts and Donations	5,457.92
Occupational Tax—Mink	708.29
Other Revenue	74,671.66
Investment Income	100,000.00
Highway Commission Contribution—Recreational Advertising	103,100.00
General Fund Contribution—Recreational Advertising	150,000.00
General Fund Contribution—State Parks	

**CONSERVATION FUND—Continued**

	<i>Net Revenue 1954-1955</i>
<b>State Parks Receipts</b>	33,567.33
Campsite Fees.....	18,575.50
Golf Fees.....	34,878.08
Rent and Rentals.....	3,389.60
Employee Rents and Accommodation Services.....	3,330.56
Convenience Services.....	6,602.61
State Roads.....	323.00
Sale of Resources.....	40.00
Sale of Buildings and Structures.....	297.94
Sale of Salvage and Scrap.....	154.79
Other Revenue.....	
<b>C.W.C.A.—Black River Falls Receipts</b>	33,912.12
Sale of Resources.....	225.39
Sale of Produced or Processed Items.....	10.00
Sale of Buildings and Structures.....	11.40
Sale of Salvage and Scrap.....	
<b>C.W.C.A.—Meadow Valley Receipts</b>	50.00
Rent and Rentals.....	11,070.19
Sale of Resources.....	
<b>TOTAL FISH AND GAME.....</b>	<b>\$4,513,671.31</b>
<b>CANCELLED DRAFTS</b>	\$ 2,419.38
Cancelled Drafts.....	
<b>TOTAL CANCELLED DRAFTS.....</b>	<b>\$ 2,419.38</b>
<b>FIRE LOSS</b>	\$ 9,367.65
Fire Loss.....	
<b>TOTAL FIRE LOSS.....</b>	<b>\$ 9,367.65</b>
<b>FEDERAL AID</b>	
<b>Clarke-McNary</b>	\$ 294,644.00
Cooperative Fire Fighting.....	9,729.00
Cooperative Forest Planting Stock.....	23,637.00
Cooperative Farm Forestry.....	
<b>TOTAL FEDERAL AID—Clarke-McNary.....</b>	<b>\$ 328,010.00</b>
<b>FEDERAL AID</b>	
<b>Pittman-Robertson</b>	\$ 26,462.95
Coordination.....	9,492.44
Deer Research.....	16,967.72
Fur Research.....	36,957.04
Game Survey and Census Research.....	30,651.11
Grouse Research.....	4,801.72
Pathology Research.....	16,085.14
Pheasant-Quail Research.....	10,282.70
Waterfowl Research.....	10,315.18
Forest Habitat Improvement Area I.....	25,464.44
Forest Habitat Improvement Area II.....	22,147.44
Crex Meadows Maintenance.....	2,927.59
C.W.C.A.—Black River Falls Maintenance.....	3,287.92
C.W.C.A.—Meadow Valley Maintenance.....	6,012.84
Horicon Marsh Maintenance.....	2,093.97
Wood County Maintenance.....	4,442.24
Land Acquisition.....	1,151.67
Ackley Area Development.....	244.23
Browntown Development.....	5,849.82
C.W.C.A.—Black River Falls Development.....	4,912.01
C.W.C.A.—Meadow Valley Development.....	2,395.48
Little Rice Development.....	2,956.73
Mazomanie Development.....	13,356.91
Regional Development Area I.....	552.81
Regional Development Area II.....	2,593.99
Regional Development Area III.....	14,789.08
Regional Development Area IV.....	25,102.09
Regional Development Area V.....	2,893.09
Prairie Chicken Development.....	



**CONSERVATION FUND—Continued**

	<i>Net Revenue 1954-1955</i>
Rock Prairie Development .....	1,383.83
Totogatic Development .....	1,011.51
Wood County Development .....	3,226.07
Yellowstone Development .....	16,860.04
Yellowstone Dam Development .....	14,880.59
<b>Dingell-Johnson</b>	
Coordination .....	11,396.95
Ecology and Physiology of Lake Fishes .....	25,335.40
Evaluation .....	14,070.02
Lake Mapping .....	12,156.76
Largemouth Bass Studies .....	16,328.60
Watershed Stabilization .....	102,695.85
Yellowstone Dam .....	22,320.88
TOTAL FEDERAL AID—Pittman—Robertson and Dingell-Johnson .....	\$ 546,856.85
<b>PUBLIC HUNTING AND FISHING GROUNDS—Voluntary Sportsmen's Licenses</b>	
Voluntary Sportmen's Licenses .....	\$ 97,212.75
TOTAL PUBLIC HUNTING AND FISHING GROUNDS—Voluntary Sportsmen's Licenses .....	\$ 97,212.75
<b>FORESTRY</b>	
Fire Suppression—Tax Levy .....	\$ 1,189.04
Campsite Fees .....	5,384.95
Rent and Rentals .....	9,689.17
Employee Rents and Accommodation Services .....	20,944.36
Fire Suppression .....	5,607.34
Activity Services .....	222.05
Convenience Services .....	136.60
State Roads .....	8,121.05
Other Services .....	35.30
Sale of Resources .....	8,397.66
Sale of Produced or Processed Items .....	185,819.08
Sale of Equipment .....	98.35
Sale of Supplies .....	32.65
Sale of Buildings and Structures .....	463.60
Sale of Salvage and Scrap .....	881.50
Gifts and Donations .....	2,367.67
4/5 Severance Tax .....	108,480.78
Withdrawals .....	767.20
2/10 Mill Tax .....	2,645,352.41
Lanham Act .....	639.06
Other Revenue .....	9,501.68
TOTAL FORESTRY .....	\$3,014,131.50
GRAND TOTAL CONSERVATION FUND .....	\$8,511,669.44
<b>REVENUE RECAPITULATION</b>	
Fishing Licenses .....	\$2,108,177.02
Game Licenses .....	1,494,211.05
Other Licenses .....	10,390.30
Miscellaneous .....	754,454.43
State Parks Receipts .....	101,159.41
C.W.C.A.—Black River Falls Receipts .....	34,158.91
C.W.C.A.—Meadow Valley Receipts .....	11,120.19
Cancelled Drafts .....	2,419.38
Fire Loss .....	9,367.65
Federal Aid—Clarke—McNary .....	328,010.00
Federal Aid—Pittman—Robertson .....	342,552.39
Federal Aid—Dingell—Johnson .....	204,304.46
Public Hunting and Fishing Grounds—Voluntary Sportsmen's Licenses .....	97,212.75
Forestry .....	3,014,131.50
GRAND TOTAL CONSERVATION FUND .....	\$8,511,669.44

**CONSERVATION FUND**  
**Disbursements**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>TRANSFER TO GENERAL FUND FOR WILDLIFE RESEARCH AND EDUCATION</b> -----			\$ 9,500.00		\$ 9,500.00
<b>TRANSFER TO GENERAL FUND FOR WATER POLLUTION COMMITTEE</b> -----			\$ 39,940.07		\$ 39,940.07
<b>TRANSFER TO GENERAL FUND FOR WATER REGULATORY BOARD</b>			\$ 6,000.00		\$ 6,000.00
<b>FISH AND GAME</b>					
General Administration Transfers Between Appropriations-----	\$ (15,390.00)	\$ (3,066.00)	\$ (1,411.00)	\$-----	\$ (19,867.00)
Finance Transfers Between Appropriations-----	(36,484.00)	(2,282.00)	(3,082.00)	( 691.00)	(42,539.00)
Commission Services Transfers Between Appropriations-----	(2,738.00)	(1,498.00)	(138.00)		(4,374.00)
Staff Services Transfers Between Appropriations-----	(9,493.00)	(1,060.00)	(14,139.00)		(24,692.00)
Rivers Survey Transfers Between Appropriations-----	(4,237.00)	(1,050.00)	(314.00)	(375.00)	(5,976.00)
Clerical Transfers Between Appropriations-----	123,357.00	539.00	26,795.00	53.00	150,744.00
Information and Education Admin. Transfers Between Appropriations-----	3,781.00	494.00	167.00		4,442.00
Information Transfers Between Appropriations-----	9,348.00	933.00	35,736.00		46,017.00
Education Transfers Between Appropriations-----	20,252.00	10,830.00	12,393.00	659.00	44,134.00
<b>General Administration</b>					
Administration-----	26,307.69	2,147.96	3,957.96	1,002.35	33,415.96
Personnel-----		343.87	691.90		1,035.77
	\$ 26,307.69	\$ 2,491.83	\$ 4,649.86	\$ 1,002.35	\$ 34,451.73
<b>Finance</b>					
Administration-----	\$ 14,070.00	\$ 739.22	\$ 640.61	\$ 704.00	\$ 16,153.83
Cashier-----	3,915.00		166.89	26.60	4,108.49
Cost Accounting-----	29,323.00	1,595.73	650.09	435.06	32,003.88
General Accounting-----	30,017.88	69.94	6,549.75	554.31	37,191.88
License Sales-----	35,182.95	313.85	61,872.15	109.01	97,477.96
Statistical-----	1,839.00				1,839.00
	\$ 114,347.83	\$ 2,718.74	\$ 69,879.49	\$ 1,828.98	\$ 188,775.04
<b>Engineering</b> -----	\$ 60,912.27	\$ 6,934.84	\$ (43,388.74)	\$ 5,828.85	\$ 30,287.22
<b>Commission Services</b> -----	\$ 5,826.00	\$ 2,590.42	\$ 2,866.11		\$ 11,282.53

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>Staff Services</b>					
Inventory and Property .....	\$ 4,695.00	\$ 135.30	\$ 3.15	\$ -----	\$ 4,833.45
Legal .....	4,995.00	700.60	5,450.81	132.60	11,279.01
Office Rent .....			32,696.00		32,696.00
Organization and Training .....	7,325.00	496.05			7,821.05
Procurement .....	4,995.00	313.22	481.11		5,789.33
	\$ 22,010.00	\$ 1,645.17	\$ 38,631.07	\$ 132.60	\$ 62,418.84
<b>Fish Management Administration</b>					
General Fisheries Administration .....	\$ 29,624.17	\$ 4,802.74	\$ 5,658.19	\$ 171.66	\$ 40,256.76
Area I Coordinator .....	5,475.00	1,105.25	117.15		6,697.40
Area II Coordinator .....	5,475.00	1,155.48	313.55		6,944.03
Area III Coordinator .....	5,115.00	1,199.50	405.07	28.77	6,748.34
Area IV Coordinator .....	5,115.00	1,181.95	413.89		6,710.84
Area V Coordinator .....	5,475.00	839.21	229.34		6,543.55
	\$ 56,279.17	\$ 10,284.13	\$ 7,137.19	\$ 200.43	\$ 73,900.92
<b>Fishery Operations</b>					
Area I Headquarters .....	\$ 68,226.17	\$ 2,923.19	\$ 14,991.04	\$ 6,130.86	\$ 92,271.26
Bayfield .....	12,268.95	110.05	7,748.12	1,320.67	21,447.79
Brule .....	8,432.93	310.86	6,727.87	71.67	15,543.33
Hayward .....	7,782.00	34.85	4,006.12	18.70	11,841.67
Osceola .....	20,093.00	267.31	12,690.23	495.67	33,546.21
St. Croix Falls .....	15,604.80	20.25	7,609.12	32.14	23,266.31
Area II Headquarters .....	73,470.52	3,908.85	10,842.43	6,069.47	94,291.27
Crystal Springs .....	10,762.28	228.96	6,395.72	31.90	17,418.86
Lakewood .....	7,482.00	164.05	3,959.58	39.20	11,644.83
Langlade .....	7,718.05	172.03	3,890.11	48.52	11,828.71
Thunder River .....	7,308.00	175.94	4,780.73	37.08	12,301.75
Area III Headquarters .....	24,559.51	3,573.11	3,021.21	5,493.49	36,647.32
Area IV Headquarters .....	53,043.46	4,788.62	12,451.72	11,249.92	81,533.72
Fond du Lac .....	35,828.83	3,108.56	5,790.99	4,829.64	49,558.02
Hartman's Creek .....			10.13		10.13
Horicon .....	29,492.66	2,084.11	7,679.81	8,779.98	48,036.56
Westfield .....	10,094.50	78.72	4,287.96	360.86	14,822.04
Wild Rose .....	27,830.47	321.17	18,665.20	852.05	47,668.89
Area V Headquarters .....	65,639.41	2,556.03	11,542.74	(281.79)	79,456.39
McFarland .....	34,409.96	1,450.65	6,569.76	11,197.33	53,627.70
Nevin .....	17,284.59	33.40	10,214.92	27,441.25	54,974.16
Newville .....	32,327.78	1,669.03	7,460.58	17,050.74	58,508.13
	\$ 569,659.87	\$ 27,979.74	\$ 171,336.09	\$ 101,269.35	\$ 870,245.05

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>Fishery Biology</b>					
Area I Biology .....	\$ 21,869.14	\$ 1,879.16	\$ 3,296.17	\$ 801.03	\$ 27,845.50
Area II Biology .....	21,038.17	3,439.01	3,416.13	262.61	28,155.92
Area III Biology .....	20,635.13	2,777.94	3,606.45	894.23	27,913.75
Area IV Biology .....	21,202.47	2,028.32	6,747.46	1,353.06	31,331.31
Area V Biology .....	17,267.42	2,479.64	1,768.70	512.01	22,027.77
	\$ 102,012.33	\$ 12,604.07	\$ 18,834.91	\$ 3,822.94	\$ 137,274.25
<b>Great Lakes Commercial Fishing</b> .....	\$ 6,847.00	\$ 1,863.68	\$ 1,079.36	\$ 3.95	\$ 9,793.99
<b>Watershed Management</b>					
Area I .....	\$ 10,869.69	\$ 997.05	\$ 2,337.24	\$ 157.30	\$ 14,361.28
Area II .....	11,129.14	1,246.10	3,782.53	76.98	16,234.75
Area III .....	3,746.19	346.36	1,339.67	252.66	5,684.88
Area IV .....	4,281.12	722.86	641.43	251.22	5,896.63
Area V .....	11,098.98	2,218.76	1,350.58	12.72	14,681.04
	\$ 41,125.12	\$ 5,531.13	\$ 9,451.45	\$ 750.88	\$ 56,858.58
<b>Dingell-Johnson—Fish and Game</b>					
Coordination .....	\$	\$	\$ 1,542.14	\$	\$ 1,542.14
Ecology and Physiology of Lake Fishes .....			21,989.23		21,989.23
Evaluation .....	10,932.13	922.06	6,834.08	1,098.16	19,786.43
Largemouth Bass Studies .....	11,742.32	559.73	2,004.87	2,632.67	16,939.59
Lake Mapping .....	6,846.38	1,016.26	3,547.69	882.03	12,292.36
Watershed Stabilization Area I .....	17,381.07	2,338.27	2,863.99	399.09	22,982.42
Watershed Stabilization Area II .....	17,913.76	1,096.25	1,722.08	319.19	21,051.28
Watershed Stabilization Area III .....	17,334.45	3,314.32	6,591.52	3,294.89	30,535.18
Watershed Stabilization Area IV .....	19,780.47	2,028.74	5,361.82	8,927.79	36,098.82
Watershed Stabilization Area V .....	18,988.50	2,634.10	6,033.86	160.51	27,816.97
Weirgor Acquisition .....				103.50	103.50
Willow Creek Acquisition .....				5,380.37	5,380.37
Deltafield Development .....	1,364.87	23.93	4,607.25	1,250.00	7,246.05
Yellowstone Dam Development .....				19,773.40	19,773.40
	\$ 122,283.95	\$ 13,933.66	\$ 63,098.53	\$ 44,221.60	\$ 243,537.74
<b>Game Administration</b> .....	\$ 17,365.08	\$ 2,306.88	\$ 7,676.53	\$ 52.70	\$ 27,401.19

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>General Game Management</b>					
Field Administration.....	\$ 12,076.00	\$ 2,283.86	\$ 1,733.71	\$ -----	\$ 16,093.57
Area I.....	39,591.04	7,731.34	7,711.34	19,121.00	74,154.72
Area II.....	34,205.01	6,786.54	6,786.54	13,665.70	64,962.73
Area III.....	63,260.04	8,461.66	10,558.69	9,272.96	91,553.35
Area IV.....	56,778.20	11,864.77	19,164.80	8,975.13	96,782.90
Area V.....	41,791.36	9,549.72	9,233.15	6,327.06	66,901.29
	\$ 247,701.65	\$ 46,677.89	\$ 58,707.17	\$ 57,361.85	\$ 410,448.56
<b>Game and Fur Farm</b> .....	\$ 189,983.31	\$ 6,517.15	\$ 137,584.34	\$ 8,197.26	\$ 342,282.06
<b>Pittman-Robertson—Fish and Game</b>					
Coordination.....	\$ 28,744.79	\$ 3,008.97	\$ 5,249.61	\$ 1,474.94	\$ 38,478.31
Deer Research.....	3,252.51	951.56	5,104.89	-----	9,308.96
Fur Research.....	13,658.82	2,244.66	1,129.50	34.90	17,067.88
Game and Range Survey Research.....	39,185.50	8,171.19	4,756.01	178.05	52,290.75
Grouse Research.....	20,019.45	4,672.94	1,036.82	-----	25,729.21
Pathology Research.....	1,873.48	158.96	2,590.38	174.18	4,797.00
Pheasant-Quail Research.....	13,363.02	2,343.40	9,895.63	39.96	25,642.01
Waterfowl Research.....	15,149.78	1,673.62	2,158.11	833.55	19,815.06
Regional Development Area I.....	799.94	274.83	68.47	-----	1,143.24
Regional Development Area II.....	1,152.91	212.59	808.48	-----	2,173.98
Regional Development Area III.....	493.24	159.19	6.80	11.50	670.73
Regional Development Area IV.....	7,539.83	1,524.18	653.91	440.56	10,158.48
Regional Development Area V.....	21,066.84	3,587.86	3,426.96	682.16	28,763.82
Forest Habitat Improvement Area I.....	13,733.35	1,465.14	7,909.11	533.53	23,641.13
Forest Habitat Improvement Area II.....	23,591.50	4,901.11	7,767.34	341.01	36,600.96
Crex Meadows Maintenance.....	12,263.19	1,071.96	4,064.95	58.10	17,458.20
CWCA—Black River Falls Maintenance.....	3,421.08	171.14	2,077.68	9.50	5,679.40
CWCA—Meadow Valley Maintenance.....	3,816.37	279.73	497.57	80.25	4,673.92
Horicon Marsh Maintenance.....	14,596.86	394.69	4,777.77	2,201.12	21,970.44
Wood County Maintenance.....	289.11	34.22	18.26	-----	341.59
Ackley Development.....	1,249.58	184.00	3.00	689.33	2,125.91
Browntown Development.....	458.63	51.26	116.84	-----	626.73
Crex Meadows Development.....	-----	-----	457.55	-----	457.55
CWCA—Black River Falls Development.....	3,187.81	242.02	452.46	623.06	4,505.35
CWCA—Meadow Valley Development.....	5,404.72	531.76	434.87	1,279.64	7,650.99
Little Rice Development.....	1,075.92	158.93	39.44	35.78	1,310.07
Mazomanie Development.....	2,782.32	345.02	2,692.06	-----	5,819.40
Prairie Chicken Development.....	3,179.50	702.10	908.48	-----	4,790.08

**CONSERVATION FUND—Continued**

[ 147 ]

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
Rock Prairie Development .....	405.25	187.83	1,292.14		1,885.22
Totogatic Development.....	2,228.24	217.99	1,021.54	206.70	3,674.47
Wood County Development.....	262.69	9.74			272.43
Yellowstone Development.....	7,016.74	1,036.54	1,739.29	1,614.63	11,407.17
Yellowstone Dam Development.....		39.74			39.74
Amberg Deer Yard Acquisition.....	19.54	1.52			21.06
Crex Meadows Acquisition.....	98.84	6.24			105.08
CWCA—Black River Falls Acquisition.....	94.95	27.00			121.95
Eldorado Marsh Acquisition.....	308.15	98.80	13.50		420.45
Fish Lake Acquisition.....	58.05	2.94			60.99
French Creek Acquisition.....	10.14	6.15			16.29
Hay Creek and Hoffman Lake Deer Yard Acquisition.....	49.58	23.41			72.99
Jackson Marsh Acquisition.....	41.71	11.86			53.57
Little Rice Acquisition.....	35.35	9.74			45.09
Mud Lake Acquisition.....	36.88	10.24			47.12
Navarino Marsh Acquisition.....	136.36	15.17	3.40		154.93
New Munster Acquisition.....	205.05	127.97	2.40		335.42
Nickols Creek Acquisition.....	7.35	1.52			8.87
Peshtigo Brook Acquisition.....	222.91	67.03			289.94
Pine Island Acquisition.....	244.70	81.80			326.50
Princess Point Acquisition.....	456.81	158.80		1.50	617.11
Rice Beds Creek Acquisition.....	127.42	16.31			143.73
Theresa Marsh Acquisition.....	68.66	36.46			105.12
Thunder Lake Acquisition.....	146.52	56.18			202.70
Tiffany Acquisition.....	108.75	42.68			151.43
Vernon Marsh Acquisition.....	227.45	53.35	2.70		283.50
Willow Creek Acquisition.....	21.75	11.64			33.39
Woods Flowage Acquisition.....	46.55	31.61			78.16
Acquisition Transfers from P.H.G. Voluntary Sportsmen's Licenses.....				45,710.64	45,710.64
	\$ 268,036.41	\$ 41,907.29	\$ 73,177.92	\$ 57,254.59	\$ 440,376.21
<b>Law Enforcement</b>					
Administration.....	\$ 14,010.00	\$ 2,249.89	\$ 4,889.51	\$ 261.23	\$ 21,410.63
Area I.....	85,924.66	39,177.39	1,901.15	1,752.68	128,755.88
Area II.....	87,079.46	38,376.48	1,599.60	1,125.78	128,181.32
Area III.....	105,092.47	45,527.91	1,702.09	2,820.17	155,142.64
Area IV.....	86,812.68	37,082.46	2,141.14	2,452.21	128,488.49
Area V.....	68,039.15	28,219.41	1,069.18	1,448.78	98,776.52
Lake Superior.....	13,695.00	3,000.72	2,184.48	50.10	18,930.30
Lake Michigan.....	13,893.00	3,765.06	1,802.59	31.65	19,492.30
Radio Dispatching.....	45,641.52		3,501.22	897.75	50,040.49
Undersized Fish Purchases.....			1,431.45		1,431.45
	\$ 520,187.94	\$ 197,399.32	\$ 22,222.41	\$ 10,840.35	\$ 750,650.02



**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
State Employees' Retirement Fund—Fish and Game.....	\$ .....	\$ .....	\$ 2,705.16	\$ .....	\$ 2,705.16
Workmen's Compensation Awards—Fish and Game.....	.....	.....	1,796.16	.....	1,796.16
Unemployment Compensation—Fish and Game.....	.....	.....	17,176.83	.....	17,176.83
Rivers Survey—Fish and Game.....	9,114.00	1,952.52	605.54	619.80	12,291.86
Dodge County 25% Sale of Fur.....	.....	.....	3,793.94	.....	3,793.94
Investment Expense—Fish and Game.....	.....	.....	309.76	.....	309.76
TOTAL FISH AND GAME.....	\$2,468,395.62	\$ 389,178.46	\$ 725,338.08	\$ 293,034.48	\$3,875,946.64
<b>RETIREMENT—FISH AND GAME</b>					
Wisconsin Retirement Fund.....	.....	.....	\$ 93,537.23	.....	\$ 93,537.23
Conservation Warden Pension.....	.....	.....	38,500.00	.....	38,500.00
Social Security.....	.....	.....	32,667.43	.....	32,667.43
TOTAL RETIREMENT—FISH AND GAME.....	.....	.....	\$ 164,704.66	.....	\$ 164,704.66
CANCELLED DRAFTS.....	.....	.....	\$ 340.59	.....	\$ 340.59
FIRE LOSS.....	\$ 46.53	.....	\$ 1,710.51	\$ 911.07	\$ 2,668.11
BOUNTIES—FOX.....	.....	.....	\$ 45,430.75	.....	\$ 45,430.75
RECREATIONAL ADVERTISING.....	\$ 17,228.98	\$ 2,381.95	\$ 177,314.87	\$ 1,673.01	\$ 198,598.81
<b>SPORTSMEN'S LICENSES</b>					
Public Hunting and Fishing Grounds—Voluntary Sportsmen's Licenses					
Area I.....	.....	.....	\$ 1,608.30	.....	\$ 1,608.30
Area II.....	.....	.....	1,563.65	.....	1,563.65
Area III.....	.....	.....	8,972.14	.....	8,972.14
Area IV.....	.....	.....	12,310.06	.....	12,310.06
Area V.....	.....	.....	19,910.68	1,153.50	21,064.18
			\$ 44,364.83	\$ 1,153.50	\$ 45,518.33

**CONSERVATION FUND—Continued**

[ 149 ]

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>Pittman-Robertson—Voluntary Sportsmen's Licenses</b>					
Allenton Acquisition.....				\$ 1.50	\$ 1.50
Amberg Deer Yard Acquisition.....				215.60	215.60
Browntown Acquisition.....				3,900.00	3,900.00
Crex Meadows Acquisition.....				5,976.75	5,976.75
C.W.C.A.—Black River Falls Acquisition.....				3,206.00	3,206.00
Eldorado Marsh Acquisition.....				14,977.00	14,977.00
Fish Lake Acquisition.....				1,051.90	1,051.90
Hay Creek and Hoffman Lake Deer Yard Acquisition.....				188.95	188.95
Jackson Marsh Acquisition.....				447.80	447.80
Mud Lake Acquisition.....				7,371.50	7,371.50
Navarino Marsh Acquisition.....				198.00	198.00
New Munster Acquisition.....				15,000.00	15,000.00
Pine Island Acquisition.....				4,110.75	4,110.75
Princess Point Acquisition.....				5,538.50	5,538.50
Rice Beds Creek Acquisition.....				3,371.15	3,371.15
Theresa Marsh Acquisition.....				7,782.09	7,782.09
Thunder Lake Acquisition.....				693.45	693.45
Tiffany Acquisition.....				2,069.85	2,069.85
Vernon Marsh Acquisition.....				24,504.04	24,504.04
Weirgor Acquisition.....				103.50	103.50
Willow Creek Acquisition.....				2,676.68	2,676.68
Woods Flowage Acquisition.....				1,271.40	1,271.40
Acquisition Transfers to Pittman-Robertson—Fish and Game.....				(45,710.64)	(45,710.64)
				\$ 58,945.77	\$ 58,945.77
<b>TOTAL SPORTSMEN'S LICENSES.....</b>			\$ 44,364.83	\$ 60,099.27	\$ 104,464.10
<b>SOUTHERN WISCONSIN FORESTS</b>					
Administration.....	\$ 6,315.00	\$ 2,063.25	\$ 10,908.99	\$ 582.86	\$ 19,870.10
Big Foot Beach.....	9,066.69	302.40	3,910.40	6,938.66	20,218.15
Northern Purchase Unit.....	55,911.46	311.14	9,441.34	8,120.57	73,784.51
Point Beach.....	18,148.45	140.56	2,619.57	2,776.00	23,684.58
Southern Purchase Unit.....	28,710.74	432.42	4,224.43	4,515.74	37,883.33
<b>TOTAL SOUTHERN WISCONSIN FORESTS.....</b>	\$ 118,152.34	\$ 3,249.77	\$ 31,104.73	\$ 22,933.83	\$ 175,440.67
<b>KETTLE MORAINE LAND.....</b>				\$ 59,537.20	\$ 59,537.20
<b>COUNTY FOREST AID.....</b>			\$ 216,274.98		\$ 216,274.98

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>FORESTRY</b>					
General Administration Transfers Between Appropriations.....	\$ 14,121.00	\$ 2,813.00	\$ 1,295.00	\$ -----	\$ 18,229.00
Finance Transfers Between Appropriations.....	33,476.00	2,094.00	2,828.00	634.00	39,032.00
Commission Services Transfers Between Appropriations.....	2,482.00	1,375.00	127.00	-----	3,984.00
Staff Services Transfers Between Appropriations.....	8,710.00	973.00	12,974.00	-----	22,657.00
Rivers Survey Transfers Between Appropriations.....	4,237.00	1,050.00	314.00	375.00	5,976.00
Clerical Transfers Between Appropriations.....	(132,282.00)	( 577.00)	(28,448.00)	(64.00)	(161,371.00)
Information and Education Administration Transfers Between Appropriations.....	(3,781.00)	(494.00)	(167.00)	-----	(4,442.00)
Information Transfers Between Appropriations.....	(9,348.00)	(933.00)	(35,736.00)	-----	(46,017.00)
Education Transfers Between Appropriations.....	(20,252.00)	(10,830.00)	(12,393.00)	(659.00)	(44,134.00)
<b>Forestry Administration</b>					
Administration.....	18,342.00	1,827.48	883.83	306.67	21,359.98
Forestry Advisory Committee.....	375.71	1,052.46	45.35	-----	1,473.52
	\$ 18,717.71	\$ 2,879.94	\$ 929.18	\$ 306.67	\$ 22,833.50
<b>Clerical</b> .....	\$ 216,889.83	\$ 468.32	\$ 40,348.92	\$ 432.47	\$ 258,139.54
<b>Forest Protection</b>					
Administration.....	\$ 12,126.00	\$ 2,238.26	\$ 96.12	\$ -----	\$ 14,460.38
Tomahawk Warehouse.....			(8,313.81)		(8,313.81)
Tomahawk Headquarters.....	94,289.65	6,062.84	58,301.28	125,872.70	284,526.47
Central Area Headquarters.....	5,425.90	1,053.01	195.85	166.20	6,840.96
District 9.....	75,889.76	695.73	8,528.59	426.66	85,540.74
District 10.....	75,929.23	1,089.09	9,442.65	538.22	86,999.19
Northern Area Headquarters.....	5,415.00	1,544.96	298.41	108.95	7,367.32
District 3.....	65,735.58	2,250.67	9,502.52	708.18	78,196.95
District 6.....	62,013.28	1,741.34	9,402.43	549.50	73,706.55
District 8.....	70,522.31	1,708.31	8,438.65	2,098.87	82,768.14
Northeast Area Headquarters.....	5,295.00	1,155.37	350.31	559.42	7,360.10
District 4.....	87,602.58	1,311.53	9,870.88	279.06	99,064.05
District 5.....	78,795.12	1,032.46	7,775.55	511.01	88,114.14
District 11.....	25,975.56	1,966.42	8,639.86	3,736.34	40,318.18
Northwest Area Headquarters.....	5,295.00	1,294.27	474.15	356.77	7,420.19
District 1.....	82,292.77	987.56	8,840.56	3,279.06	95,399.95
District 2.....	78,194.03	1,439.94	10,558.72	1,112.10	91,304.79
District 7.....	92,274.72	1,566.88	8,746.52	1,030.83	103,618.95
	\$ 923,071.49	\$ 29,138.64	\$ 151,149.24	\$ 141,333.87	\$ 1,244,693.24

CONSERVATION FUND—Continued

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>Fire Suppression</b>					
Reportable Fires—County	\$ 3,155.34	\$ 89.31	\$ 792.34		\$ 4,036.99
Nonreportable Fires—Other	7,377.55	840.75	499.99		8,717.99
	\$ 10,532.69	\$ 930.06	\$ 1,292.23		\$ 12,754.98
<b>Cooperative Forestry</b>					
Administration	\$ 16,296.67	\$ 3,954.18	\$ 4,261.94	\$ 164.53	\$ 24,677.32
County Forestry	76,560.10	19,322.90	1,220.69	1,240.72	98,344.41
Farm Forestry	84,009.39	20,620.00	4,320.87	1,704.36	110,654.62
Insect Control	12,649.12	3,563.72	1,989.08	23.72	18,225.64
State Forest Inventory	53,330.44	6,148.84	6,920.56	2,596.96	68,996.80
	\$ 242,845.72	\$ 53,609.64	\$ 18,713.14	\$ 5,730.29	\$ 320,898.79
<b>Nurseries</b>					
Administration	\$ 10,350.00	\$ 946.59	\$ 389.96	\$	\$ 11,686.55
Gordon	13,344.39	249.96	10,805.70	3,290.36	27,690.41
Griffith	98,156.36	109.43	67,797.98	7,955.76	174,019.53
Hayward	43,969.75	213.14	4,937.28	3,356.00	52,476.17
Hugo Sauer	22,341.74	22.00	7,740.01	1,628.56	31,732.31
Trout Lake	40,820.22	66.24	2,386.54	200.22	43,473.22
Nursery Transfers to Reforestation	(8,500.00)		(46,290.99)	(14,050.85)	(68,841.84)
	\$ 220,482.46	\$ 1,607.36	\$ 47,766.48	\$ 2,380.05	\$ 272,236.35
<b>State Forests</b>					
Administration	\$ 4,953.00	\$ 697.50	\$ 1,953.47	\$	\$ 7,603.97
American Legion	7,239.53	372.85	3,518.59	1,443.75	12,574.72
Brule River	7,967.93	378.17	2,828.06	3,029.95	14,204.11
Council Grounds	3,075.00		451.31		3,526.31
Flambeau	33,305.82	1,056.26	5,305.27	5,395.96	45,063.31
Northern Highland	65,120.21	1,521.69	13,407.27	3,348.67	83,397.84
Trout Lake Administration	10,350.00	1,242.78	158.73	45.00	11,796.51
	\$ 132,011.49	\$ 5,269.25	\$ 27,622.70	\$ 13,263.33	\$ 178,166.77
<b>Forest Insect Research</b>	\$ 1,067.62		\$ 25,265.17		\$ 26,332.79
<b>Tree Disease Research</b>	690.68		27,080.59	188.63	27,959.90
<b>Blister Rust Control</b>	7,435.74	2,614.97	112.50		10,163.21
<b>Forest Soils Research</b>	735.44	16.25	24,880.95	115.16	25,747.80

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materia's, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>Forest Genetics</b> .....	1,026.95	98.35	17,451.78	-----	18,577.08
<b>Information and Education Administration</b> .....	7,455.00	1,146.14	318.82	-----	8,919.96
<b>Information</b>					
Publications.....	4,530.45	32.24	48,763.30	-----	53,325.99
Newspaper Service.....	6,015.00	159.41	1,800.36	-----	7,974.77
Special Services.....	5,655.00	307.07	2,013.06	-----	7,975.13
	\$ 16,200.45	\$ 498.72	\$ 52,576.72	-----	\$ 69,275.89
<b>Education</b>					
Clubs.....	\$ 4,935.00	\$ 557.79	\$ 203.78	\$ -----	\$ 5,696.57
Conservation Congress.....		3,704.02	2,609.37	-----	6,313.39
Exhibits.....	12,410.74	5,099.47	4,477.41	1,041.70	23,029.32
Schools.....	6,375.00	1,084.34	850.38	-----	8,309.72
Visual Aids.....	16,545.00	1,593.23	10,708.76	660.04	29,507.03
	\$ 40,265.74	\$ 12,038.85	\$ 18,849.70	\$ 1,701.74	\$ 72,856.03
<b>Workmen's Compensation Awards—Forestry</b> .....			\$ 2,359.12	-----	\$ 2,359.12
<b>Unemployment Compensation—Forestry</b> .....			65,870.11	-----	65,870.11
TOTAL FORESTRY.....	\$1,736,792.01	\$ 105,787.49	\$ 463,381.35	\$ 165,738.21	\$2,471,699.06
<b>RETIREMENT—FORESTRY</b>					
Wisconsin Retirement Fund.....			\$ 85,291.57	-----	\$ 85,291.57
Social Security.....			30,117.95	-----	30,117.95
TOTAL RETIREMENT—FORESTRY.....			\$ 115,409.52	-----	\$ 115,409.52
<b>BEAR AND DEER DAMAGE</b>					
Bear Damage.....			\$ 4,862.00	-----	\$ 4,862.00
Deer Damage.....			35,138.00	-----	35,138.00
TOTAL BEAR AND DEER DAMAGE.....			\$ 40,000.00	-----	\$ 40,000.00
<b>STATE PARKS</b>					
General Administration Transfers Between Appropriations.....	\$ 1,269.00	\$ 253.00	\$ 116.00	\$ -----	\$ 1,638.00
Finance Transfers Between Appropriations.....	3,008.00	188.00	254.00	57.00	3,507.00

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>Commission Services Transfers Between Appropriations</b> .....	256.00	123.00	11.00		390.00
<b>Staff Services Transfers Between Appropriations</b> .....	783.00	87.00	1,165.00		2,035.00
<b>Clerical Transfers Between Appropriations</b> .....	8,925.00	38.00	1,653.00	11.00	10,627.00
<b>State Parks Operating</b>					
Administration .....	\$ 12,352.17	\$ 2,333.61	\$ 26,078.07	\$ 56.03	\$ 40,819.88
Aztalan .....	708.70		392.18	259.07	1,359.95
Brunet Island .....	9,610.40	87.54	1,234.43	688.36	11,620.73
Castle Mound .....	1,962.67	93.50	177.21		2,233.38
Copper Falls .....	10,116.08	17.21	2,190.65	2,943.15	15,267.09
Cox Hollow .....			339.58	1,265.55	1,605.13
Cushing Memorial .....	946.00	26.67	74.30	174.75	1,221.72
Devil's Lake .....	48,869.35	661.04	10,642.37	1,578.11	61,750.87
First Capitol .....	2,044.21		98.70		2,142.91
Interstate .....	20,420.84	474.76	2,562.08	175.64	23,633.32
Lost Dauphin .....	1,095.02	197.21	223.40	495.14	2,010.77
Lucius Woods .....	6,230.75	99.59	1,719.82	1,118.63	9,168.79
Merrick .....	11,011.50	775.01	1,286.22	236.61	13,309.34
Mill Bluff .....	1,863.60		100.29	25.34	1,989.23
Nelson Dewey .....	7,154.74		897.94	890.08	8,942.76
New Glarus .....	1,556.56	68.32	29.07		1,653.95
Ojibwa .....	1,267.46		207.57	471.00	1,946.03
Pattison .....	13,995.62	330.23	2,909.39	35,381.19	52,616.43
Peninsula .....	58,543.76	398.39	11,001.80	19,515.66	89,459.61
Perrot .....	10,198.72		1,301.96	92.48	11,593.16
Potowatomi .....	9,855.32	78.60	2,141.03	877.32	12,952.27
Rib Mountain .....	12,508.62	328.01	4,393.84	2,727.67	19,958.14
Roche a Cri .....	1,277.00	.80	43.85	46.83	1,368.48
Rocky Arbor .....	[ 2,471.04	11.36	214.78		2,697.18
Terry Andrae .....	9,282.54	85.61	1,515.14	213.39	11,096.68
Tower Hill .....	6,630.00	86.12	673.80	87.91	7,477.83
Wildcat Mountain .....	9,662.33	151.35	1,742.36	941.72	12,497.76
Wyalusing .....	19,749.63	76.08	2,712.59	415.50	22,953.80
Cooperation—State Historical Society .....	4,000.00	500.00			4,500.00
Cooperation—Aztalan Exploration .....	2,244.74	323.02	589.87		3,157.63
	\$ 297,629.37	\$ 7,204.03	\$ 77,494.29	\$ 70,677.13	\$ 453,004.82
<b>TOTAL STATE PARKS</b> .....	\$ 311,870.37	\$ 7,893.03	\$ 80,693.29	\$ 70,745.13	\$ 471,201.82
<b>GRAND TOTAL CONSERVATION FUND</b> .....	\$4,652,485.85	\$ 508,490.70	\$2,161,508.23	\$ 674,672.20	\$7,997,156.98



## REFORESTATION FUND

Beginning and Ending Balances and Transactions of the Reforestation Fund  
for the Fiscal Year 1954-1955

	<i>Balance Forwarded from 1953-1954</i>	<i>Plus Revenue 1954-1955</i>	<i>Minus Disbursements 1954-1955</i>	<i>Plus Transfers 1954-1955</i>	<i>Minus Transfers 1954-1955</i>	<i>Balance Forwarded to 1955-1956</i>
<b>REFORESTATION</b>	\$189,163.29	\$110,066.66	\$173,625.46	-----	-----	\$125,604.49
TOTAL REFORESTATION FUND.....	\$189,163.29	\$110,066.66	\$173,625.46	—0—	—0—	\$125,604.49

## Schedule B-1

## REFORESTATION FUND

## Revenue

<b>REFORESTATION</b>	
Rent and Rentals.....	\$ 3,417.00
Sale of Resources.....	84,953.53
Boscobel Nursery.....	17,314.00
Investment Income.....	4,381.28
Other Revenue.....	.85
TOTAL REFORESTATION.....	<u>\$110,066.66</u>

## Schedule B-2

## REFORESTATION FUND

## Disbursements

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1954-1955 Disbursements</i>
<b>FORESTRY ACTIVITIES—</b>					
<b>Reforestation</b>					
Land Purchase.....	\$-----	\$-----	\$-----	\$35,794.13	\$ 35,794.13
State Aid.....	-----	-----	21,250.39	-----	21,250.39
Nursery Transfers from Forestry.....	8,500.00	-----	46,290.99	14,050.85	68,841.84
	\$ 8,500.00	-----	\$67,541.38	\$49,844.98	\$125,886.36
<b>INVESTMENT EXPENSE—</b>					
<b>Reforestation</b> .....	-----	-----	17.32	-----	17.32
<b>PITTMAN-ROBERTSON—</b>					
<b>Reforestation</b>					
Boscobel Nursery.....	34,073.85	816.44	9,732.54	3,098.95	47,721.78
TOTAL REFORESTATION.....	<u>\$42,573.85</u>	<u>\$816.44</u>	<u>\$77,291.24</u>	<u>\$52,943.93</u>	<u>\$173,625.46</u>

## GENERAL FUND

## Beginning and Ending Balances and Transactions of the General Fund for the Fiscal Year 1954-1955

	Balance Forwarded from 1953-1954	Plus Appropriation or Revenue 1954-1955	Minus Disbursement 1954-1955	Plus Transfers 1954-1955	Minus Transfers 1954-1955	Unexpended Lapsing Balance
<b>GENERAL FUND—LAPSING</b>						
Bounties on Fox.....	—0—	\$ 45,430.75*	\$ 45,430.75			—0—
Bounties on Wolf and other Animals.....	—0—	53,450.00*	53,450.00			—0—
Forest Crop Administration	—0—	4,820.23	4,820.23			—0—
Conservation Department	—0—	1,180.80	1,180.80			—0—
Department of Taxation	—0—	575.72*	575.72			—0—
Forest Crop Withdrawals	—0—	3,905.50*	3,905.50			—0—
Forest Crop Severance Tax	—0—	235,000.00	234,586.37			413.63
Forest Crop Aid	—0—					
<b>TOTAL GENERAL FUND—LAPSING</b>	<b>—0—</b>	<b>\$344,363.00</b>	<b>\$343,949.37</b>	<b>—0—</b>	<b>—0—</b>	<b>\$413.63</b>

\*Sum sufficient

## Schedule C-1

## NON-APPROPRIATED REVENUE

Forest Crop Withdrawals.....	\$ 162.21
Forest Crop Severance Tax.....	33,819.98
	<b>\$33,982.19</b>

## Schedule C-2

## GENERAL FUND

## Disbursements

	Personal Services	Travel Expense	Materials, Services and Supplies	Capital Outlay	Total 1954-1955 Disbursements
<b>GENERAL FUND</b>					
<b>Bounties</b>					
Bounties on Fox.....			\$ 45,430.75		\$ 45,430.75
Bounties on Wolf and Other Animals.....			53,450.00		53,450.00
<b>Forest Crop</b>					
Administration—					
Conservation Department	\$4,820.23				4,820.23
Department of Taxation	1,180.80				1,180.80
Forest Crop Withdrawals			575.72		575.72
Forest Crop Severance Tax			3,905.50		3,905.50
Forest Crop Aid			234,586.37		234,586.37
<b>TOTAL GENERAL FUND</b>	<b>\$6,001.03</b>	<b>—0—</b>	<b>\$337,948.34</b>	<b>—0—</b>	<b>\$343,949.37</b>

**FINANCIAL REPORT 1955-1956**

Exhibit A

**CONSERVATION FUND  
BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE OVER-ALL CONSERVATION FUND  
FOR THE FISCAL YEAR 1955-1956**

[ 156 ]

Appropriation	Balance Forwarded From 1954-1955	Plus Revenue 1955-1956	Minus Disburse- ments 1955-1956	Plus Transfers 1955-1956	Minus Transfers 1955-1956	Cash Balance Forwarded To 1956-1957	Minus Un- liquidated Encum- brances	Uncum- bered Balance Available for 1956-1957
Fish, Game and Parks.....	\$1,330,851.22	\$4,566,725.00		(a)\$ 474,245.48 (b) 287,042.54 (c) 4,501.19 (d) 1,868.90	(e)\$4,670,104.74 (f) 9,500.00 (g) 39,998.50 (h) 6,000.00 (i) 223,627.93 (j) 277,556.00 (k) 40,000.00 (l) 445,492.81 (m) 12,922.01 (n) 38,860.25			
Imprest Fund Advance.....	5,000.00					901,172.09		\$ 901,172.09
Fish and Game Operations.....	287,042.54		4,269,442.11	(e) 4,670,104.74	(b) 287,042.54	(x) 5,000.00 400,662.63	105,260.58	5,000.00 295,402.05
Conserving Wildlife.....			9,500.00	(f) 9,500.00				
Water Pollution Committee.....			39,998.50	(g) 39,998.50				
Water Regulatory Board.....			6,000.00	(h) 6,000.00				
Retirement, etc.—Fish and Game.....			223,627.93	(i) 223,627.93				
Recreational Advertising.....	4,501.19		266,422.14	(j) 277,556.00	(c) 4,501.19	(x) 11,133.86		11,133.86
Bear and Deer Damage.....			19,564.48	(k) 40,000.00		(x) 20,435.52		20,435.52
State Parks.....	1,868.90		436,762.55	(l) 445,492.81	(d) 1,868.90	(x) 8,730.26	1,060.00	7,670.26
School Tax on State Hunting Grounds.....			12,922.01	(m) 12,922.01				
Bounties—Fox.....			38,860.25	(n) 38,860.25				
Forestry.....	1,523,736.48	3,193,356.87		(o) 376,289.09 (p) 222,767.69	(q) 3,387,767.59 (r) 223,428.06 (t) 111,714.03 (u) 215,719.07 (v) 174,458.92			
Forestry Operations.....	222,767.69		2,791,458.23	(q) 3,387,767.59 (r) 223,428.06	(p) 222,767.69 (s) 228,785.12	(y) 1,203,062.46 596,309.36	44,053.83	1,203,062.46 552,265.53
So. Wis. Forests—Revenue.....	142,153.10			(s) 228,785.12		(aa) 47,009.12		136,796.04
So. Wis. Forests Operations.....			181,776.00	(a) 228,785.12		31,119.27	5,850.00	41,159.12
Kettle Moraine Land.....	83,275.36	23,512.00	187,382.12	(t) 111,714.03			26,000.00	5,119.27
County Forest Aid.....			215,719.07	(u) 215,719.07				
Retirement, etc.—Forestry.....			174,458.92	(v) 174,458.92				
Forestry Reserve.....	300,000.00					300,000.00		300,000.00
Public Htg. and Fishing Grds., Sportsmen's Licenses Revenue.....	116,834.07	109,490.20		(a) 86,064.60 (w) 175,543.67	(w) 175,543.67	136,845.20		136,845.20
Public Htg. and Fishing Grds., Sportsmen's Licenses Operations.....			123,213.19			(bb) 52,330.48	38,298.53	14,031.95
Federal Aid—Clarke—McNary.....		376,289.09						
Federal Aid—Pittman—Robertson and Dingell—Johnson.....		560,310.08						
Cancelled Drafts.....	5,469.50	2,024.14	2,969.06			(z) 4,524.58		4,524.58
Insurance Loss.....	10,569.24	4,183.65	4,630.92			10,121.97	89.50	10,032.47
<b>TOTAL CONSERVATION FUND.....</b>	<b>\$4,034,069.29</b>	<b>\$8,835,891.03</b>	<b>\$9,004,707.48</b>	<b>\$ 11,734,258.19</b>	<b>\$ 11,734,258.19</b>	<b>\$ 3,865,252.84</b>	<b>\$ 220,612.44</b>	<b>\$3,644,640.40</b>

See following page for footnotes.

## CONSERVATION FUND

## Footnotes Explaining Exhibit A

- (a) \$ 474,245.48 and \$86,064.60 transferred to Fish, Game & Parks and Public Hunting & Fishing Grounds, Sportsmen's Licenses respectively from Federal Aid—Pittman—Robertson and Dingell—Johnson.
- (b) \$ 287,042.54 is prior year Fish and Game Operations balance which reverts to Fish, Game & Parks Appropriation.
- (c) \$ 4,501.19 is prior year Recreational Advertising balance which reverts to Fish, Game & Parks Appropriation.
- (d) \$ 1,868.90 is prior year State Parks balance which reverts to Fish, Game & Parks Appropriation.
- (e) \$4,670,104.74 transferred from Fish, Game & Parks to Fish & Game Operations as 1955-1956 appropriation.
- (f) \$ 9,500.00 transferred from Fish, Game & Parks to Conserving Wildlife as 1955-1956 appropriation.
- (g) \$ 39,998.50 transferred from Fish, Game & Parks to Water Pollution Costs as 1955-1956 appropriation.
- (h) \$ 6,000.00 transferred from Fish, Game & Parks to Water Regulatory Board as 1955-1956 appropriation.
- (i) \$ 223,627.93 transferred from Fish, Game & Parks to Retirement Contributions—Fish & Game as 1955-1956 sum sufficient appropriation.
- (j) \$ 277,556.00 transferred from Fish, Game & Parks to Recreational Advertising as 1955-1956 appropriation.
- (k) \$ 40,000.00 transferred from Fish, Game & Parks to Bear and Deer Damage as 1955-1956 appropriation.
- (l) \$ 445,492.81 transferred from Fish, Game & Parks to State Parks as 1955-1956 appropriation.
- (m) \$ 12,922.01 transferred from Fish, Game & Parks to School Tax on State Hunting Grounds as 1955-1956 sum sufficient appropriation.
- (n) \$ 38,860.25 transferred from Fish, Game & Parks to Bounties—Fox to cover payment of 1/2 of the 1955-1956 fox bounties.
- (o) \$ 376,289.09 transferred to Forestry from Federal Aid—Clarke—McNary.
- (p) \$ 222,767.69 is prior year Forestry Operations balance which reverts to Forstry appropriation.
- (q) \$3,387,767.59 transferred from Forestry to Forestry Operations as 1955-1956 appropriation.
- (r) \$ 223,428.06 transferred from Forestry to Southern Wisconsin Forests as 1955-1956 appropriation.
- (s) \$ 228,785.12 transferred from So. Wis. Forests—Revenue to So. Wis. Forests—Operations as 1955-1956 appropriation.
- (t) \$ 111,714.03 transferred from Forestry to Kettle Moraine Land as 1955-1956 appropriation.
- (u) \$ 215,719.07 transferred from Forestry to County Forest Aid as 1955-1956 sum sufficient appropriation.
- (v) \$ 174,458.92 transferred from Forestry to Retirement Contributions—Forestry as 1955-1956 sum sufficient appropriation.
- (w) \$ 175,543.67 transferred from PHG—Sportsmen's Licenses—Revenue to PHG—Sportsmen's Licenses Operations as 1955-1956 appropriation.
- (x) Balances revert to Fish, Game & Parks Appropriation.
- (y) Balance reverts to Forestry Appropriation.
- (z) Items over six years old totalling \$1,713.82 will revert to Fish, Game & Parks Appropriation.
- (aa) Balance reverts to Southern Wisconsin Forests—Revenue Appropriation.
- (bb) Balance reverts to PHG—Sportsmen's Licenses—Revenue Appropriation.

## CONSERVATION FUND

## Revenue

	<i>Net Revenue 1955-1956</i>
<b>FISH, GAME AND PARKS</b>	
<b>Fishing Licenses</b>	
Fish Shipping Coupons.....	\$ 501.10
Nonresident Combination 15 Day Fishing Licenses.....	285,091.52
Nonresident Fishing Licenses.....	1,103,253.80
Resident Fishing Licenses.....	580,415.13
Great Lakes Commercial Fishing Licenses.....	9,501.50
Bait Dealers' Licenses.....	6,160.00
Mississippi River Commercial Licenses and Tags.....	4,887.50
Private Fish Hatchery Licenses.....	2,410.00
Slat Net Licenses and Tags.....	1,275.75
Wholesale Fish Dealer Licenses.....	4,575.00
Trammel Net Licenses.....	480.00
Bank Pole Fishing Licenses.....	995.45
Cisco Licenses.....	493.00
Set Line Licenses and Tags.....	3,574.95
Sturgeon Tags.....	10,613.00
Bait Net Licenses.....	19.00
<b>Game Licenses</b>	
Resident Hunting Licenses—Small Game.....	657,429.72
Resident Hunting Licenses—Big Game.....	527,106.50
Nonresident Hunting Licenses—Small Game.....	48,485.50
Nonresident Hunting Licenses—Big Game.....	69,912.25
Nonresident Hunting Licenses—Archers.....	20,156.70
Nonresident Shooting Preserve Hunting Licenses.....	3,622.70
Shooting Preserve Licenses and Tags.....	993.65
Settlers' Hunting Licenses—Small Game.....	726.00
Settlers' Hunting Licenses—Big Game.....	752.50
Trapping Licenses.....	11,543.20
Trap Tags.....	41,105.48
Beaver Trapping Licenses and Tags.....	7,883.00
Deer Farm Licenses.....	2,646.25
Resident Fur Dealer Licenses.....	3,300.00
Itinerant Fur Buyer.....	1,000.00
Game Farm Licenses and Tags.....	2,421.40
Muskrat Farm Licenses and Tags.....	7,046.14
Beaver Farm Licenses and Tags.....	162.72
Otter, Raccoon, Mink and Skunk Farm Licenses and Tags.....	965.56
Raccoon Tags.....	12,120.46
Voluntary Sportsmen's Licenses.....	186,100.00
<b>Other Licenses</b>	
Christmas Tree Dealer Licenses and Tags.....	7,059.35
Duplicate Licenses.....	1,694.25
Guide Licenses.....	915.00
Scientific Certificates.....	46.00
Taxidermist Licenses.....	480.00
<b>Miscellaneous</b>	
Warden and Witness Fees.....	4,692.36
Rent and Rentals.....	18,172.42
Employee Rents and Accommodation Services.....	13,704.58
Activity Services.....	1,382.80
Supervision and Inspection Services.....	886.22
Sale of Resources.....	24,629.95
Sale of Confiscations and Seizures.....	45,163.01
Sale of Produced or Processed Items.....	8,676.14
Sale of Equipment.....	2,051.95
Sale of Supplies.....	1,597.30
Sale of Buildings and Structures.....	3,740.75
Sale of Signs.....	538.46
Sale of Salvage and Scrap.....	3,005.54
Sale of Rough Fish.....	147,846.44
Commission on Sale of Rough Fish.....	6,174.58
Sale of Other Items.....	7.50
Gifts and Donations.....	79.00
Other Revenue.....	5,191.74
Investment Income.....	78,014.68

**CONSERVATION FUND—Continued**

	<i>Net Revenue 1955-1956</i>
<b>Transfer from Other Funds</b>	
Highway Commission Contribution—Recreational Advertising .....	150,000.00
General Fund Contribution—Recreational Advertising .....	103,100.00
General Fund Contribution—State Parks .....	150,000.00
<b>C.W.C.A.—Black River Falls Receipts</b>	
Sale of Resources .....	29,920.90
Sale of Produced or Processed Items .....	216.10
Sale of Building and Structures .....	201.00
Sale of Salvage and Scrap .....	12.00
<b>C.W.C.A.—Meadow Valley Receipts</b>	
Sale of Resources .....	20,853.20
<b>State Park Receipts</b>	
Campsite Fees .....	42,923.78
Golf Fees .....	18,503.50
Rent and Rentals .....	38,483.48
Employee Rents and Accommodation Services .....	3,734.00
Convenience Services .....	4,043.15
State Roads .....	7,080.59
Sale of Resources .....	100.00
Sale of Produced or Processed Items .....	551.00
Sale of Buildings and Structures .....	1,010.00
Sale of Salvage and Scrap .....	371.85
Other Revenue .....	144.00
<b>TOTAL FISH, GAME AND PARKS</b> .....	<b>\$4,566,725.00</b>
<b>FORESTRY</b>	
Fire Suppression—Tax Levy .....	\$ 169.75
Campsite Fees .....	7,983.95
Warden and Witness Fees .....	10.40
Rent and Rentals .....	10,594.81
Employee Rents and Accommodation Services .....	21,085.99
Fire Suppression .....	10,045.56
Activity Services .....	603.41
Convenience Services .....	164.71
State Roads .....	8,150.27
Sale of Resources .....	8,216.24
Sale of Produced or Processed Items .....	213,904.52
Sale of Equipment .....	160.00
Sale of Buildings and Structures .....	2,709.00
Sale of Salvage and Scrap .....	1,143.33
Gifts and Donations .....	742.68
4/5 Severance Tax .....	109,648.20
Withdrawals .....	6,040.90
2/10 Mill Tax .....	2,790,988.72
Lanham Act .....	5.26
Other Revenue .....	989.17
<b>TOTAL FORESTRY</b> .....	<b>\$3,193,356.87</b>
<b>KETTLE MORaine LAND</b>	
Other Revenue .....	\$ 23,512.00
<b>TOTAL KETTLE MORaine LAND</b> .....	<b>\$ 23,512.00</b>
<b>PUBLIC HUNTING AND FISHING GROUNDS—Sportsmen's Licenses</b>	
Voluntary Sportsmen's Licenses .....	\$ 109,489.20
Gifts and Donations .....	1.00
<b>TOTAL PUBLIC HUNTING AND FISHING GROUNDS—Sportsmen's Licenses</b> .....	<b>\$ 109,490.20</b>



**CONSERVATION FUND—Continued**

	<i>Net Revenue 1955-1956</i>
<b>FEDERAL AID</b>	
<b>Clarke-McNary</b>	
Cooperative Fire Fighting.....	\$ 342,408.09
Cooperative Forest Planting Stock.....	19,101.95
Cooperative Farm Forestry.....	14,779.05
<b>TOTAL FEDERAL AID—Clarke-McNary.....</b>	<b>\$ 376,289.09</b>
<b>FEDERAL AID</b>	
<b>Pittman-Robertson</b>	
Coordination.....	\$ 14,492.72
Farm Game and Range Research.....	17,490.89
Forest Game and Range Research.....	24,168.17
Game and Range Survey Research.....	25,526.65
Pathology Research.....	4,072.40
Wetland Game and Range Research.....	26,423.59
Regional Development—Area I.....	515.27
Regional Development—Area II.....	1,320.67
Regional Development—Area III.....	803.41
Regional Development—Area IV.....	5,325.02
Regional Development—Area V.....	16,916.90
Forest Habitat Improvement—Area I.....	18,120.77
Forest Habitat Improvement—Area II.....	23,068.27
Crex Meadow Maintenance.....	11,828.54
Horicon Marsh Maintenance.....	15,998.55
Land Acquisition.....	86,012.60
Ackley Development.....	1,184.37
Browntown Development.....	652.98
C.W.C.A.—Black River Falls Development.....	6,119.88
C.W.C.A.—Meadow Valley Development.....	9,181.60
French Creek Development.....	130.59
Kiezer Lake Development.....	219.38
Mazomanie Development.....	4,136.17
Prairie Chicken Development.....	5,520.81
Totogatic Development.....	3,214.10
Wood County Development.....	844.34
Yellowstone Development.....	4,978.46
<b>Dingell-Johnson</b>	
Coordination.....	12,948.64
Ecology and Physiology of Lake Fishes.....	32,890.15
Habitat Management—Area I.....	25,203.19
Habitat Management—Area II.....	22,443.52
Habitat Management—Area III.....	27,069.63
Habitat Management—Area IV.....	28,984.87
Habitat Management—Area V.....	27,034.37
Habitat Management—Evaluation.....	21,474.72
Land Acquisition.....	606.25
Area I Research.....	11,325.57
Area V Research.....	10,700.64
Lake Mapping.....	1,838.90
Delafield Development.....	9,522.53
<b>TOTAL FEDERAL AID—Pittman-Robertson and Dingell-Johnson.....</b>	<b>\$ 560,310.08</b>
<b>CANCELLED DRAFTS</b>	
Cancelled Drafts.....	\$ 2,024.14
<b>TOTAL CANCELLED DRAFTS.....</b>	<b>\$ 2,024.14</b>
<b>INSURANCE LOSS</b>	
Insurance Loss.....	\$ 4,183.65
<b>TOTAL INSURANCE LOSS.....</b>	<b>\$ 4,183.65</b>
<b>GRAND TOTAL CONSERVATION FUND.....</b>	<b>\$8,835,891.03</b>

**CONSERVATION FUND—Continued**

	<i>Net Revenue 1955-1956</i>
<b>REVENUE RECAPITULATION</b>	
Fishing Licenses .....	\$2,014,246.70
Game Licenses .....	1,605,479.73
Other Licenses .....	10,194.60
Miscellaneous .....	365,555.42
Transfers from Other Funds .....	403,100.00
C.W.C.A.—Black River Falls Receipts .....	30,350.00
C.W.C.A.—Meadow Valley Receipts .....	20,853.20
State Parks Receipts .....	116,945.35
Forestry .....	3,193,356.87
Kettle Moraine Land .....	23,512.00
Public Hunting and Fishing Grounds—Sportsmen's Licenses .....	109,490.20
Federal Aid—Clarke—McNary .....	376,289.09
Federal Aid—Pittman—Robertson .....	328,267.10
Federal Aid—Dingell—Johnson .....	252,042.98
Cancelled Drafts .....	2,024.14
Insurance Loss .....	4,183.65
<b>GRAND TOTAL CONSERVATION FUND.....</b>	<b>\$8,835,891.03</b>

**CONSERVATION FUND**  
**Disbursements**  
 (Reverse amounts in Parentheses)

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>FISH AND GAME OPERATIONS</b>					
General Administration Transfers Between Appropriations.....	\$ (17,704.00)	\$ (2,656.00)	\$ (1,908.00)	\$ -----	\$ (22,268.00)
Finance Transfers Between Appropriations.....	(34,241.00)	(2,327.00)	(3,823.00)	(705.00)	(41,096.00)
Commission Services Transfers Between Appropriations.....	(2,310.00)	(2,232.00)	(1,316.00)	-----	(5,858.00)
Staff Services Transfers Between Appropriations.....	(7,885.00)	(1,034.00)	(19,359.00)	-----	(28,278.00)
Engineering—Rivers Survey Transfers Between Appropriations.....	(3,990.00)	(1,050.00)	(314.00)	(375.00)	(5,729.00)
Clerical Transfers Between Appropriations.....	88,545.00	530.00	24,364.00	1,312.00	114,751.00
Information and Education Adm. Transfers Between Appropriations.....	3,716.00	495.00	167.00	-----	4,378.00
Information Transfers Between Appropriations.....	8,527.00	935.00	35,664.00	137.00	45,263.00
Education Transfers Between Appropriations.....	22,516.00	10,747.00	13,477.00	3,350.00	50,090.00
<b>General Administration</b>					
Administration.....	21,055.00	3,184.20	4,080.81	214.36	28,534.37
Personnel.....	-----	111.40	529.31	-----	640.71
	\$ 21,055.00	\$ 3,295.60	\$ 4,610.12	\$ 214.36	\$ 29,175.08
<b>Finance</b>					
Administration.....	\$ 16,866.95	\$ 906.59	\$ 912.77	\$ 173.84	\$ 18,860.15
Cashier.....	4,032.00	3.75	346.90	-----	4,382.65
Cost Accounting.....	31,774.51	1,526.49	1,711.22	469.46	35,481.68
General Accounting.....	31,802.09	87.28	6,637.55	456.56	38,983.48
License Sales.....	35,899.84	475.46	64,860.13	243.50	101,478.93
	\$ 120,375.39	\$ 2,999.57	\$ 74,468.57	\$ 1,343.36	\$ 199,186.89
<b>Engineering</b>					
Engineering.....	\$ 66,307.67	\$ 7,754.76	\$ (40,731.97)	\$ 45,473.70	\$ 78,804.16
Rivers Survey.....	-----	996.48	16.01	175.68	1,188.17
	\$ 66,307.67	\$ 8,751.24	\$ (40,715.96)	\$ 45,649.38	\$ 79,992.33
<b>Commission Services</b> .....	\$ 5,408.35	\$ 2,082.80	\$ 388.81	-----	\$ 7,879.96
<b>Staff Services</b>					
Inventory and Property.....	\$ 5,183.00	\$ 192.71	\$ 256.36	\$ -----	\$ 5,632.07
Legal.....	4,961.00	937.92	5,581.74	414.00	11,894.66
Office Rent.....	-----	-----	33,584.00	-----	33,584.00
Organization and Training.....	10,810.00	869.30	-----	209.73	11,889.03
Procurement.....	5,112.00	548.43	369.72	2.00	6,032.15
	\$ 26,066.00	\$ 2,548.36	\$ 39,791.82	\$ 625.73	\$ 69,031.91

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>Fish Management Administration</b>					
General Fisheries Administration.....	\$ 30,565.89	\$ 5,728.71	\$ 9,470.07	\$ 411.80	\$ 46,176.47
Area I Coordinator.....	5,752.00	1,332.04	96.65		7,180.69
Area II Coordinator.....	5,812.00	1,256.90	367.47		7,436.37
Area III Coordinator.....	5,512.00	1,051.89	386.54	2,051.00	9,001.43
Area IV Coordinator.....	5,452.00	1,368.18	291.60		7,111.78
Area V Coordinator.....	5,812.00	954.54	311.04		7,077.58
	\$ 58,905.89	\$ 11,692.26	\$ 10,923.37	\$ 2,462.80	\$ 83,984.32
<b>Fishery Operations</b>					
Area I Headquarters.....	\$ 67,873.04	\$ 2,968.64	\$ 11,969.35	\$ 15,136.11	\$ 97,947.14
Bayfield.....	13,338.00	323.58	11,003.00	156.71	24,821.29
Brule.....	8,868.00	679.96	7,377.67	2.15	16,927.78
Hayward.....	8,315.00	39.10	5,110.97		13,465.07
Osceola.....	21,971.36	176.05	16,820.61	387.01	39,355.03
St. Croix Falls.....	20,737.58	122.29	15,730.34	1,132.93	37,723.14
Area II Headquarters.....	73,505.46	4,407.50	11,984.45	8,180.15	98,077.56
Crystal Springs.....	11,149.70	174.16	7,785.70	24.61	19,134.17
Lakewood.....	8,427.00	189.12	6,765.96	399.39	15,781.47
Langlade.....	8,643.50	219.39	6,726.79	38.20	15,627.88
Thunder River.....	8,715.91	67.13	5,241.76		14,024.80
Area III Headquarters.....	32,774.18	3,353.24	4,979.45	5,627.76	46,734.63
Area IV Headquarters.....	50,694.02	4,829.27	15,550.29	19,207.51	90,281.09
Fond du Lac.....	38,051.62	3,247.46	11,607.34	7,364.97	60,271.39
Great Lakes Commercial Fishing.....	8,678.05	2,509.78	736.50		11,924.33
Horicon.....	31,364.82	2,832.85	8,617.77	1,811.11	44,626.55
Westfield.....	10,112.06	52.45	6,792.47	216.90	17,173.88
Wild Rose.....	26,073.35	437.52	27,827.41	25,710.82	80,049.10
Area V Headquarters.....	69,255.39	2,855.54	11,444.48	8,822.77	92,378.18
McFarland.....	34,922.99	1,291.49	5,031.46	8,249.99	49,495.93
Nevin.....	11,156.71	165.29	16,257.99	2,452.91	30,032.90
Newville.....	31,768.15	1,911.29	7,521.19	8,569.30	49,769.93
	\$ 596,395.89	\$ 32,853.10	\$ 222,882.95	\$ 113,491.30	\$ 965,623.24
<b>Fishery Biology</b>					
Area I Management.....	\$ 13,868.00	\$ 1,588.08	\$ 2,853.61	\$ 82.84	\$ 18,392.53
Area II Management.....	12,890.92	3,130.84	3,014.20	169.40	19,205.36
Area III Management.....	13,288.99	1,407.06	3,891.54	425.64	19,013.23
Area IV Management.....	24,966.01	1,765.89	5,060.48	221.79	32,014.17
Area V Management.....	18,836.15	2,355.22	1,475.95	22.00	22,689.32
Area II Research.....	12,269.02	1,991.55	1,332.92	148.08	15,741.57
Area III Research.....	10,245.71	584.91	1,318.41	1,900.10	14,049.13
Area IV Research.....	618.12	498.02	1,686.53	483.86	3,286.53
	\$ 106,982.92	\$ 13,321.57	\$ 20,633.64	\$ 3,453.71	\$ 144,391.84

CONSERVATION FUND—Continued

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>Dingell-Johnson—Fish and Game</b>					
Coordination.....	\$ 10,000.00	\$	\$ 557.35	\$	\$ 10,557.35
Ecology and Physiology of Lake Fishes.....	235.52	18.54	35,527.22		35,781.28
Habitat Management—Area I.....	24,940.66	3,231.01	6,276.41	390.65	34,838.73
Habitat Management—Area II.....	25,328.64	2,780.18	5,580.55	341.96	34,031.33
Habitat Management—Area III.....	24,210.08	3,495.92	7,183.92	3,982.12	38,872.04
Habitat Management—Area IV.....	23,543.73	3,750.33	4,428.17	779.59	32,482.82
Habitat Management—Area V.....	28,011.12	4,527.08	6,484.69	88.22	39,111.11
Habitat Management—Evaluation.....	12,842.98	1,164.16	6,707.36	236.65	20,951.15
Land Acquisition.....				16,036.15	16,036.15
Area I Research.....	16,979.50	1,944.61	1,494.46	589.72	21,008.29
Area V Research.....	11,655.57	1,355.18	1,853.79	264.26	15,128.80
Delafield Development.....	2,502.64	294.04	1,666.11	66.15	4,528.94
	\$ 180,250.44	\$ 22,561.05	\$ 77,760.03	\$ 22,756.47	\$ 303,327.99
<b>Game Administration</b>					
	\$ 15,317.67	\$ 3,039.54	\$ 26,535.15	\$ 373.49	\$ 45,265.85
<b>General Game Management</b>					
Field Administration.....	\$ 18,188.00	\$ 2,444.30	\$ 1,511.25	\$ 215.63	\$ 22,359.18
Area I.....	61,185.07	13,129.44	12,476.92	7,773.26	94,564.69
Area II.....	51,850.14	14,374.71	11,263.60	10,933.23	88,421.68
Area III.....	76,923.42	12,713.51	15,360.99	33,513.98	138,511.90
Area IV.....	61,440.12	13,488.76	15,562.43	5,747.49	96,238.80
Area V.....	57,644.72	16,119.94	8,778.37	7,447.91	89,990.94
	\$ 327,231.47	\$ 72,270.66	\$ 64,953.56	\$ 65,631.50	\$ 530,087.19
<b>Game and Fur Farm</b>					
	\$ 188,886.34	\$ 5,678.02	\$ 128,561.76	\$ 4,741.65	\$ 327,867.77
<b>Pittman-Robertson—Fish and Game</b>					
Coordination.....	\$ 14,953.39	\$ 2,464.27	\$ 4,965.61	\$ 855.29	\$ 23,238.56
Farm Game and Range Research.....	14,158.73	2,890.34	9,281.16	209.07	26,539.30
Forest Game and Range Research.....	29,115.95	7,965.73	10,009.81	108.78	47,200.27
Game and Range Survey Research.....	16,333.08	4,367.77	2,783.61	882.00	24,366.46
Pathology Research.....	4,139.66	281.16	1,190.76	96.37	5,707.95
Wetland Game and Range Research.....	24,073.29	4,797.50	5,229.98	664.67	34,765.44
Regional Development—Area I.....	813.60	186.71	81.81		1,082.12
Regional Development—Area II.....	51.89	22.80			74.69
Regional Development—Area III.....	513.82	225.10			738.92
Regional Development—Area IV.....	6,992.72	1,125.57	400.44	209.63	8,728.36
Regional Development—Area V.....	12,864.35	2,367.32	5,539.39	22.55	20,793.61
Ackley Development.....	586.25	109.27	14.05		709.57

CONSERVATION FUND—Continued

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
Browntown Development.....	544.28	63.36	359.11	-----	976.75
CWCA—Black River Falls Development.....	4,869.71	295.22	3,464.06	1,116.97	9,745.96
CWCA—Meadow Valley Development.....	4,980.56	417.39	1,688.27	3,419.99	10,506.21
French Creek Development.....	117.60	56.52	137.60	-----	311.72
Hay Meadow Creek Dam Development.....	976.69	101.95	178.28	207.57	1,464.49
Kiezer Lake Development.....	-----	-----	226.15	474.17	700.32
Mazomanie Development.....	496.50	149.78	918.43	590.40	2,155.11
Prairie Chicken Development.....	4,186.91	885.43	738.58	-----	5,810.92
Sharptail Grouse Development—Area II.....	-----	-----	396.98	1,284.14	1,681.12
Totogatic Development.....	1,793.26	160.91	82.99	417.60	2,454.76
Wood County Development.....	-----	-----	-----	540.00	540.00
Yellowstone Development.....	4,123.10	400.37	813.56	154.50	5,491.53
Forest Habitat Improvement—Area I.....	11,739.92	1,779.21	1,978.82	503.53	16,001.48
Forest Habitat Improvement—Area II.....	12,194.55	3,499.98	619.50	2,029.14	18,343.17
CWCA—Black River Falls Maintenance.....	-----	-----	68.32	-----	68.32
Crex Meadows Maintenance.....	11,580.85	1,234.47	3,564.68	1,590.95	17,970.95
Horicon Marsh Maintenance.....	15,583.18	550.68	4,698.96	4,099.26	24,932.08
Crex Meadows Acquisition.....	-----	2.06	-----	6.00	8.06
CWCA—Black River Falls Acquisition.....	-----	47.98	28.89	1.50	78.37
Eldorado Marsh Acquisition.....	4.29	6.02	2.75	-----	13.06
Killsnake—Cedar Creek Acquisition.....	42.14	17.11	-----	2.00	61.25
Theresa Marsh Acquisition.....	18.25	4.42	-----	-----	22.67
Willow Creek Acquisition.....	-----	-----	-----	2.00	2.00
Acquisition Transfers from P.H.G. Voluntary Sportsmen's License.....	-----	-----	-----	22,100.00	22,100.00
	<b>\$ 197,848.52</b>	<b>\$ 36,476.40</b>	<b>\$ 59,472.55</b>	<b>\$ 41,588.08</b>	<b>\$ 335,385.55</b>
<b>Law Enforcement</b>					
Administration.....	\$ 14,604.00	\$ 2,556.24	\$ 16,172.56	\$ 3,700.63	\$ 37,033.43
Area I.....	109,369.08	53,984.99	2,797.39	6,122.10	172,273.56
Area II.....	119,061.93	58,846.99	2,921.84	5,292.34	186,123.10
Area III.....	126,476.10	57,251.69	3,393.11	6,836.64	193,957.54
Area IV.....	121,893.12	57,476.47	3,367.12	9,206.57	191,943.28
Area V.....	82,612.86	36,685.22	1,262.01	5,804.69	126,364.78
Lake Michigan.....	14,584.00	3,958.21	1,054.58	175.00	19,771.79
Lake Superior.....	14,392.00	3,352.69	2,350.44	369.30	20,464.43
Radio Dispatching.....	41,928.30	-----	3,697.52	38,801.75	84,427.57
Undersized Fish Purchases.....	-----	-----	651.59	-----	651.59
	<b>\$ 644,921.39</b>	<b>\$ 274,112.50</b>	<b>\$ 37,668.16</b>	<b>\$ 76,309.02</b>	<b>\$1,033,011.07</b>



**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services, and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>State Employees' Retirement Fund—Fish and Game</b> .....			2,705.16		2,705.16
<b>Dodge County 25% Sales of Furs—Fish and Game</b> .....			960.45		960.45
<b>Investment Expense—Fish and Game</b> .....			312.51		312.51
<b>TOTAL FISH AND GAME OPERATIONS</b> .....	<b>\$2,613,126.94</b>	<b>\$ 495,090.67</b>	<b>\$ 778,864.65</b>	<b>\$ 382,359.85</b>	<b>\$4,269,442.11</b>
<b>TRANSFER TO GENERAL FUND FOR CONSERVING WILDLIFE</b> .....			\$ 9,500.00		\$ 9,500.00
<b>TRANSFER TO GENERAL FUND FOR WATER POLLUTION COMMITTEE</b> .....			\$ 39,998.50		\$ 39,998.50
<b>TRANSFER TO GENERAL FUND FOR WATER REGULATORY BOARD</b> .....			\$ 6,000.00		\$ 6,000.00
<b>RETIREMENT, ETC.—FISH AND GAME</b>					
Wisconsin Retirement Fund.....			\$ 110,038.77		\$ 110,038.77
Conservation Warden's Pension.....			38,500.00		38,500.00
Social Security.....			55,957.50		55,957.50
Unemployment Compensation.....			14,900.85		14,900.85
Workmen's Compensation Awards.....			2,462.06		2,462.06
Judgment Debtor Relief Awards.....			1,768.75		1,768.75
<b>TOTAL RETIREMENT, ETC.,—FISH AND GAME</b> .....			<b>\$ 223,627.93</b>		<b>\$ 223,627.93</b>
<b>RECREATIONAL ADVERTISING</b> .....	<b>\$ 20,249.62</b>	<b>\$ 5,170.24</b>	<b>\$ 225,117.95</b>	<b>\$ 15,884.33</b>	<b>\$ 266,422.14</b>
<b>BEAR AND DEER DAMAGE</b>					
Bear Damage.....			\$ 2,344.88		\$ 2,344.88
Deer Damage.....			17,219.60		17,219.60
<b>TOTAL BEAR AND DEER DAMAGE</b> .....			<b>\$ 19,564.48</b>		<b>\$ 19,564.48</b>
<b>STATE PARKS</b>					
General Administration Transfers Between Appropriations.....	\$ 1,431.00	\$ 215.00	\$ 154.00	\$-----	\$ 1,800.00
Finance Transfers Between Appropriations.....	2,769.00	188.00	309.00	57.00	3,323.00
Commission Services Transfers Between Appropriations.....	187.00	180.00	107.00	-----	474.00
Staff Services Transfers Between Appropriations.....	638.00	84.00	1,565.00	-----	2,287.00
Clerical Transfers Between Appropriations.....	6,348.00	38.00	1,747.00	94.00	8,227.00

**CONSERVATION FUND—Continued**

[ 167 ]

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>State Parks Operations</b>					
Administration.....	\$ 8,056.37	\$ 2,947.27	\$ 1,534.29	\$ 771.46	\$ 13,309.39
Aztalan.....	758.96	92.28	460.68	1,014.71	2,326.63
Brunet Island.....	10,622.16	52.33	1,981.37	1,080.68	13,736.54
Castle Mound.....	1,601.44	84.65	176.30	-----	1,862.39
Copper Falls.....	10,197.88	53.29	2,687.71	810.25	13,749.13
Cushing Memorial.....	975.50	41.75	160.53	-----	1,177.78
Devil's Lake.....	49,668.07	936.75	11,438.51	2,216.68	64,260.01
First Capitol.....	2,151.43	-----	559.04	-----	2,710.47
Governor Dodge.....	374.00	19.86	-----	922.98	1,316.84
Interstate.....	23,059.91	612.02	3,370.06	1,039.02	28,081.01
Lost Dauphin.....	428.54	-----	30.10	60.50	519.14
Lucius Woods.....	5,762.65	56.03	1,439.20	1,642.15	8,900.03
Merrick.....	12,288.54	884.29	2,014.66	1,410.57	16,598.06
Mill Bluff.....	1,673.59	2.85	69.03	6.45	1,751.92
Nelson Dewey.....	6,578.03	-----	1,794.23	2,554.52	10,926.78
New Glarus.....	1,596.34	43.37	80.81	233.20	1,953.72
Ojibwa.....	1,346.15	35.63	289.11	-----	1,670.89
Pattison.....	14,334.86	97.90	1,392.02	2,841.95	21,666.73
Peninsula.....	59,046.65	445.85	13,654.17	10,446.81	83,593.48
Perrot.....	10,302.53	-----	1,258.46	4,193.25	15,754.24
Potawatomi.....	12,171.75	48.35	2,159.81	2,793.78	17,173.69
Rib Mountain.....	14,843.33	218.05	6,607.34	3,611.46	25,280.18
Roche a Cri.....	1,898.73	80	145.05	236.95	2,281.53
Rocky Arbor.....	2,601.49	2.80	181.80	233.20	3,019.29
Terry Andrae.....	10,052.31	75.37	1,840.31	3,269.80	15,237.79
Tower Hill.....	5,883.00	56.50	1,081.79	317.88	7,339.77
Wildcat Mountain.....	10,283.00	71.16	1,507.46	1,192.08	13,053.70
Wyalusing.....	20,735.25	163.58	2,817.93	867.96	24,584.72
Cooperation—State Historical Society.....	4,000.00	500.00	-----	-----	4,500.00
Cooperation—Aztalan Exploration.....	1,629.96	-----	-----	685.74	2,315.70
	<b>\$ 304,923.02</b>	<b>\$ 7,542.73</b>	<b>\$ 63,731.77</b>	<b>\$ 44,454.03</b>	<b>\$ 420,651.55</b>
<b>TOTAL STATE PARKS</b> .....	<b>\$ 316,296.02</b>	<b>\$ 8,247.73</b>	<b>\$ 67,613.77</b>	<b>\$ 44,605.03</b>	<b>\$ 436,762.55</b>
<b>SCHOOL TAX ON STATE HUNTING GROUNDS</b> .....	-----	-----	\$ 12,922.01	-----	\$ 12,922.01
<b>BOUNTIES—FOX</b> .....	-----	-----	\$ 38,860.25	-----	\$ 38,860.25

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>FORESTRY OPERATIONS</b>					
General Administration Transfers Between Appropriations.....	\$ 16,273.00	\$ 2,441.00	\$ 1,754.00	\$-----	\$ 20,468.00
Finance Transfers Between Appropriations.....	31,472.00	2,139.00	3,514.00	648.00	37,773.00
Commission Services Transfers Between Appropriations.....	2,123.00	2,052.00	1,209.00	-----	5,384.00
Staff Services Transfers Between Appropriations.....	7,247.00	950.00	17,794.00	-----	25,991.00
Engineering—Rivers Survey Transfers Between Appropriations.....	3,990.00	1,050.00	314.00	375.00	5,729.00
Clerical Transfers Between Appropriations.....	(94,893.00)	(568.00)	(26,111.00)	(1,406.00)	(122,978.00)
Information and Education Administration Transfers Between Appropriations.....	(3,716.00)	(495.00)	(167.00)	-----	(4,378.00)
Information Transfers Between Appropriations.....	(8,527.00)	(935.00)	(35,664.00)	(137.00)	(45,263.00)
Education Transfers Between Appropriations.....	(22,516.00)	(10,747.00)	(13,477.00)	(3,350.00)	(50,090.00)
<b>Forestry Administration</b>					
Forestry Administration.....	18,960.00	2,500.11	3,413.17	26.70	24,899.98
Forestry Advisory Committee.....	4,524.00	425.82	17.57	-----	4,967.39
	\$ 23,484.00	\$ 2,925.93	\$ 3,430.74	\$ 26.70	\$ 29,867.37
<b>Clerical</b> .....	\$ 225,997.61	\$ 434.87	\$ 51,924.09	\$ 3,552.39	\$ 281,908.96
<b>Forest Protection</b>					
Administration.....	\$ 16,032.00	\$ 2,527.72	\$ 1,122.26	\$-----	\$ 19,681.98
Tomahawk Headquarters.....	99,417.00	6,771.66	57,905.86	126,064.65	290,159.17
Tomahawk Warehouse.....	-----	-----	1,686.08	(251.62)	1,434.46
Central Area Headquarters.....	5,632.00	1,284.72	673.53	17.40	7,607.65
District No. 9.....	79,612.11	843.77	8,989.26	1,702.83	91,147.97
District No. 10.....	76,811.06	1,080.08	8,386.77	2,414.14	88,692.05
District No. 11.....	29,151.00	1,970.50	11,211.81	2,939.75	45,273.06
District No. 12.....	7,922.50	1,446.56	2,281.29	22,399.68	34,050.03
Northern Area Headquarters.....	5,752.00	1,514.67	412.57	394.31	8,073.55
District No. 3.....	68,809.24	2,409.03	9,078.92	1,243.42	81,540.61
District No. 6.....	68,638.17	2,516.41	10,751.61	5,717.85	87,624.04
District No. 8.....	73,233.07	1,613.74	8,563.09	2,476.13	85,886.03
Northeast Area Headquarters.....	5,632.00	1,404.20	420.59	33.87	7,490.66
District No. 4.....	93,993.87	1,494.58	10,179.20	1,928.05	107,595.70
District No. 5.....	82,505.54	1,349.12	9,370.67	1,626.42	94,851.75
Northwest Area Headquarters.....	5,632.00	1,491.95	694.30	25.79	7,844.04
District No. 1.....	89,414.26	1,046.88	8,842.79	2,113.66	101,417.59
District No. 2.....	81,149.83	1,111.36	9,694.39	2,203.87	94,159.45
District No. 7.....	94,596.02	1,790.76	10,147.35	1,983.82	108,517.95
	\$ 983,933.67	\$ 33,667.71	\$ 170,412.34	\$ 175,034.02	\$ 1,363,047.74

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>Fire Suppression</b>					
Reportable Fires (County).....	\$ 5,011.05	\$ 156.80	\$ 1,625.94		\$ 6,793.79
Nonreportable Fires (Other).....	5,719.40	435.32	489.36		6,694.08
	\$ 10,730.45	\$ 642.12	\$ 2,115.30		\$ 13,487.87
<b>Cooperative Forestry</b>					
Administration.....	\$ 27,080.00	\$ 5,567.77	\$ 4,671.20	\$ 764.93	38,083.90
County Forestry.....	81,900.78	22,389.68	3,047.61	1,537.10	108,875.17
Pest Control.....	14,845.91	5,630.60	13,783.42	4,524.58	38,784.51
Small Woodlands.....	83,613.81	25,067.19	5,603.02	7,260.41	121,544.43
State Forest Inventory.....	58,237.07	13,084.92	19,087.15	178.56	90,587.70
	\$ 265,677.57	\$ 71,740.16	\$ 46,192.40	\$ 14,265.58	\$ 397,875.71
<b>Nurseries</b>					
Administration.....	\$ 11,015.00	\$ 1,034.71	\$ 594.71	\$	\$ 12,644.42
Gordon.....	13,329.81	176.62	10,428.49	2,700.63	26,635.55
Griffith.....	106,804.33	324.88	63,963.79	16,510.89	187,603.89
Hayward.....	49,003.73	427.29	7,045.26	6,466.09	62,942.37
Hugo Sauer.....	23,142.38	234.52	10,743.31	2,733.08	36,853.89
Trout Lake.....	36,421.45	57.06	2,701.31	1,276.62	40,456.44
Nursery Transfers to Reforestation.....			(28,599.56)	(3,563.78)	(32,163.34)
	\$ 239,716.70	\$ 2,255.08	\$ 66,877.31	\$ 26,124.13	\$ 334,973.22
<b>State Forests</b>					
Administration.....	\$ 5,044.00	\$ 654.05	\$ 2,553.44	\$ 122.85	\$ 8,374.34
American Legion.....	12,484.06	1,015.31	5,660.88	1,627.49	20,787.74
Brule River.....	9,073.02	436.19	5,302.81	67.94	14,879.96
Council Grounds.....	3,192.00		453.21	6.95	3,652.16
Flambeau River.....	34,187.29	481.51	5,611.01	4,894.45	45,174.26
Northern Highland.....	65,656.67	1,380.59	17,195.88	3,860.52	88,093.66
Trout Lake Administration.....	10,584.00	1,650.43	102.67	29.25	12,366.35
	\$ 140,221.04	\$ 5,618.08	\$ 36,879.90	\$ 10,609.45	\$ 193,328.47
<b>Forest Insect Research</b> .....	\$ 619.71	\$	\$ 36,620.24	\$	\$ 37,239.95
<b>Tree Disease Research</b> .....	817.05		30,846.40		31,663.45

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>Blister Rust Control</b> .....	10,123.10	1,527.05			11,650.15
<b>Forest Soils Research</b> .....	407.55		27,627.82	172.14	28,207.51
<b>Forest Genetics</b> .....	2,950.49	303.83	18,623.85	21.54	21,899.71
<b>Information and Education Administration</b> .....	7,632.00	1,054.67	584.01		9,270.68
<b>Information</b>					
Publications.....	5,832.00	\$ 5.25	\$ 55,937.94		\$ 61,775.19
Newspaper Service.....	6,192.00	128.80	1,807.82		8,128.62
Special Services.....	5,792.00	244.75	314.19		6,350.94
	\$ 17,816.00	\$ 378.80	\$ 58,059.95		\$ 76,254.75
<b>Education</b>					
Clubs.....	\$ 5,112.00	\$ 631.59	\$ 207.28		\$ 5,950.87
Conservation Congress.....		5,417.45	3,081.04		8,498.49
Exhibits.....	15,272.80	5,396.66	7,245.18	1,803.82	29,718.46
Schools.....	6,492.00	1,332.74	873.64		8,698.38
TV-Radio.....	912.00		1,637.67	1,497.15	4,046.82
Visual Aids.....	17,200.50	1,802.56	9,834.57	2,396.04	31,233.67
	\$ 44,989.30	\$ 14,581.00	\$ 22,879.38	\$ 5,697.01	\$ 88,146.69
<b>TOTAL FORESTRY OPERATIONS</b> .....	\$ 1,906,569.24	\$ 131,016.30	\$ 522,239.73	\$ 231,632.96	\$ 2,791,458.23
<b>Southern Wisconsin Forests</b>					
Administration.....	6,653.04	2,367.62	11,209.47	897.69	21,127.82
Big Foot Beach.....	9,520.61	106.81	3,234.68	1,404.99	14,267.09
Northern Purchase Unit.....	57,957.86	300.12	9,412.44	11,514.65	79,185.07
Point Beach.....	19,568.61	96.42	2,990.82	1,619.11	24,274.96
Southern Purchase Unit.....	30,702.63	248.21	3,298.53	8,671.69	42,921.06
<b>TOTAL SOUTHERN WISCONSIN FORESTS</b> .....	\$ 124,402.75	\$ 3,119.18	\$ 30,145.94	\$ 24,108.13	\$ 181,776.00
<b>KETTLE MORAIN E LAND</b> .....				\$ 187,382.12	\$ 187,382.12
<b>COUNTY FOREST AID</b> .....			\$ 215,719.07		\$ 215,719.07

**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
<b>RETIREMENT, ETC.—FORESTRY</b>					
Wisconsin Retirement Fund .....			\$ 88,010.54		\$ 88,010.54
Social Security .....			33,520.20		33,520.20
Unemployment Compensation .....			50,916.09		50,916.09
Workmen's Compensation Awards .....			2,012.09		2,012.09
TOTAL RETIREMENT, ETC.—FORESTRY .....			\$ 174,458.92		\$ 174,458.92
<b>PUBLIC HUNTING AND FISHING GROUNDS—SPORTSMEN'S LICENSES</b>					
<b>Public Hunting and Fishing Grounds—Voluntary Sportsmen's Licenses</b>					
Area I .....			\$ 4,909.22	\$ 875.00	\$ 5,784.22
Area II .....			3,669.94		3,669.94
Area III .....			7,688.54	8.00	7,696.54
Area IV .....			12,154.93		12,154.93
Area V .....			21,287.61	823.00	22,110.61
<b>Pittman-Robertson—Voluntary Sportsmen's Licenses</b>			\$ 49,710.24	\$ 1,706.00	\$ 51,416.24
Amberg Deer Yard Acquisition .....				\$ 172.00	\$ 172.00
Allenton Acquisition .....				14,709.00	14,709.00
Crex Meadows Acquisition .....				1,560.12	1,560.12
C.W.C.A.—Black River Falls Acquisition .....				8,855.50	8,855.50
Dell Creek Acquisition .....				799.84	799.84
Eldorado Marsh Acquisition .....				671.92	671.92
Fish Lake Acquisition .....				1,196.75	1,196.75
Germania Marsh Acquisition .....				7,728.50	7,728.50
Killsnake-Cedar Creek Acquisition .....				515.60	515.60
Navarino Acquisition .....				1,500.00	1,500.00
Nichols Creek Acquisition .....				4,735.50	4,735.50
Peshtigo Brook Acquisition .....				230.50	230.50
Peshtigo Harbor Acquisition .....				1,259.64	1,259.64
Pine Island Acquisition .....				26,984.75	26,984.75
Princess Point Acquisition .....				316.50	316.50
Theresa Marsh Acquisition .....				15,028.50	15,028.50
Thunder Lake Acquisition .....				4,954.53	4,954.53
Tiffany Acquisition .....				5.25	5.25



**CONSERVATION FUND—Continued**

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disbursements</i>
Washington Creek Acquisition.....				360.00	360.00
Willow Creek Acquisition.....				2,286.01	2,286.01
Wood Flowage Acquisition.....				26.54	26.54
Acquisition Transfers to Pittman-Robertson—Fish and Game.....				(22,100.00)	(22,100.00)
				\$ 71,796.95	\$ 71,796.95
TOTAL PUBLIC HUNTING AND FISHING GROUNDS— SPORTSMEN'S LICENSES.....			\$ 49,710.24	\$ 73,502.95	\$ 123,213.19
<b>CANCELLED DRAFTS</b> .....	\$.....	\$.....	\$ 2,969.06	\$.....	\$ 2,969.06
<b>INSURANCE LOSS</b> .....	6.16		3,004.63	1,620.13	4,630.92
<b>GRAND TOTAL CONSERVATION FUND</b> .....	<b>\$4,980,650.73</b>	<b>\$ 642,644.12</b>	<b>\$2,420,317.13</b>	<b>\$ 961,095.50</b>	<b>\$9,004,707.48</b>

REFORESTATION FUND

Exhibit B

BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE REFORESTATION FUND  
FOR THE FISCAL YEAR 1955-1956

[ 173 ]

	<i>Balance Forwarded From 1954-1955</i>	<i>Plus Revenue 1955-1956</i>	<i>Minus Disbursements 1955-1956</i>	<i>Plus Transfers 1955-1956</i>	<i>Minus Transfers 1955-1956</i>	<i>Cash Balance Forwarded To 1956-1957</i>	<i>Minus Unliquidated Encumbrances</i>	<i>Unencumbered Balance Available for 1955-1956</i>
<b>Reforestation Fund</b> -----	\$125,596.14	\$195,659.56	\$147,258.14			\$173,997.56	\$ 64,816.93	\$109,180.63
<b>Reforestation Fund—Cancelled Drafts</b> -----	8.35					8.35		8.35
	<u>\$125,604.49</u>	<u>\$195,659.56</u>	<u>\$147,258.14</u>			<u>\$174,005.91</u>	<u>\$ 64,816.93</u>	<u>\$109,188.98</u>

## Schedule B-1

## REFORESTATION FUND

## Revenue

<b>REFORESTATION</b>	
Rent and Rentals.....	\$ 1,254.00
Sale of Resources.....	133,940.99
Boscobel Nursery.....	57,701.11
Other Revenue.....	49.32
Investment Income.....	2,717.14
<b>TOTAL REFORESTATION FUND.....</b>	<b>\$195,659.56</b>

## Schedule B-2

## REFORESTATION FUND

## Disbursements

(Reverse amounts in Parentheses)

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disburse- ments</i>
<b>FORESTRY ACTIVITIES—</b>					
<b>Reforestation</b>					
Land Purchase.....			\$ 1.00	\$21,214.77	\$ 21,215.77
State Aid.....			29,085.25		29,085.25
Nursery Transfers from Forestry.....			28,599.56	3,563.78	32,163.34
			\$57,685.81	\$24,778.55	\$ 82,464.36
<b>INVESTMENT EXPENSE.....</b>			14.28		14.28
<b>PITTMAN-ROBERTSON REFORESTATION</b>					
Boscobel Nursery.....	\$40,498.62	\$878.63	9,682.87	13,719.38	64,779.50
<b>TOTAL REFORESTATION FUND.....</b>	<b>\$40,498.62</b>	<b>\$878.63</b>	<b>\$67,382.96</b>	<b>\$38,497.93</b>	<b>\$147,258.14</b>

**GENERAL FUND**  
**BEGINNING AND ENDING BALANCES AND TRANSACTIONS OF THE GENERAL**  
**FUND FOR THE FISCAL YEAR 1955-1956**

	<i>Balance Forwarded From 1954-1955</i>	<i>Plus Appropriation or Revenue 1955-1956</i>	<i>Minus Disbursements 1955-1956</i>	<i>Plus Transfers 1955-1956</i>	<i>Minus Transfers 1955-1956</i>	<i>Cash Balance Forwarded To 1956-1957</i>	<i>Minus Unliquidated Encumbrances</i>	<i>Unencumbered Balance Available for 1955-1956</i>
<b>GENERAL FUND—LAPSING</b>								
Forest Crop Administration.....	—0—	\$ 4,120.00	\$ 4,120.00	-----	-----	—0—	-----	—0—
Forest Crop Aid.....	—0—	243,098.06	243,098.06	-----	-----	—0—	-----	—0—
Forest Crop Severance Tax.....	—0—	3,266.97*	3,266.97	-----	-----	—0—	-----	—0—
Forest Crop Withdrawals.....	—0—	915.33*	915.33	-----	-----	—0—	-----	—0—
Bounties on Fox.....	—0—	38,860.25*	38,860.25	-----	-----	—0—	-----	—0—
Bounties on Wolf and Other Animals.....	—0—	43,945.00*	43,945.00	-----	-----	—0—	-----	—0—
TOTAL GENERAL FUND—LAPSING	—0—	\$334,205.61	\$334,205.61	-----	-----	—0—	-----	—0—

[ 175 ]

## Exhibit C-1

<b>GENERAL FUND—NON-LAPSING</b>								
Capital Improvements—State Parks.....	—0—	\$250,000.00	\$ 24,646.24	-----	-----	\$225,353.76	\$ 468.68	\$224,885.08
Capital Improvements—State Parks Cox Hollow—Iowa County.....	—0—	10,000.00	-----	-----	-----	10,000.00	-----	10,000.00
Gifts and Donations.....	—0—	600.00	600.00	-----	-----	—0—	-----	—0—
TOTAL GENERAL FUND—NON-LAPSING.....	—0—	\$260,600.00	\$ 25,246.24	-----	-----	\$235,353.76	\$ 468.68	\$234,885.08

\*Sum sufficient.

## GENERAL FUND

## Revenue

Capital Improvement—State Parks	
Cox Hollow—Iowa County	\$10,000.00
Gifts and Donations	600.00
	<u>\$10,600.00</u>

## NON-APPROPRIATED REVENUE

Forest Crop Severance Tax	\$37,833.22
Forest Crop Withdrawals	2,612.28
	<u>\$40,445.50</u>

## GENERAL FUND

## Disbursements

(Reverse Amounts in Parentheses)

	<i>Personal Services</i>	<i>Travel Expense</i>	<i>Materials, Services and Supplies</i>	<i>Capital Outlay</i>	<i>Total 1955-1956 Disburse- ments</i>
<b>GENERAL FUND—LAPSING</b>					
<b>Forest Crop</b>					
Forest Crop Administration	\$4,120.00		\$		\$ 4,120.00
Forest Crop Aid			243,098.06		243,098.06
Forest Crop Severance Tax			3,266.97		3,266.97
Forest Crop Withdrawals			915.33		915.33
<b>Bounties</b>					
Bounties on Fox			38,860.25		38,860.25
Bounties on Wolf and Other Animals			43,945.00		43,945.00
TOTAL GENERAL FUND— LAPSING	\$4,120.00		\$330,085.61		\$334,205.61
<b>GENERAL FUND—NON-LAPSING</b>					
<b>Capital Improvements—State Parks</b>					
Brunet Island			\$ 5.10		\$ 5.10
Devils Lake			3,839.05		3,839.05
Governor Dodge			2,677.30		2,677.30
Interstate			92.92		92.92
Lucius Woods			133.53		133.53
Pattison			621.54		621.54
Peninsula			16,751.61		16,751.61
Potawatomi			214.07		214.07
Tower Hill			277.05		277.05
Wyalusing			34.07		34.07
Gifts and Donations			600.00		600.00
TOTAL GENERAL FUND— NON-LAPSING			\$ 25,246.24		\$ 25,246.24