

DIVISION OF FISHERIES

Introductory

The first state fisheries effort in Wisconsin was the appointment of a fish inspector under Chapter 77 W. S. in 1866. Eight years later state fisheries operations were started under an act of the legislature of 1874 by which a commission was appointed and a small appropriation made.

The first state work of hatching fish was carried on at the Dousman private fish hatchery located near the village of Dousman in Waukesha county. The first state hatchery was established in Madison in 1875 and is still in operation.

Commercial species received attention from the state fish department at almost as early a date as game fishes of inland waters. The second hatchery established in the state was a station for hatching lake trout and whitefish. It was located in Milwaukee. Later this hatchery was transferred to Oshkosh where the lake trout and wall-eyed pike were hatched. The pike work was discontinued at Oshkosh however, because of the unsatisfactory quality of the water in the spring during the hatching season. The lake trout work was continued at the Oshkosh station until the two new commercial fish hatcheries were built at Sheboygan and Sturgeon Bay in 1911.

The third state fish hatchery was built at Bayfield in 1895. It was used primarily for hatching brook and lake trout to take care of the streams in the northern part of the state and the commercial lake trout fishing in Lake Superior.

About this time demand was made that the state make efforts to hatch bass and more wall-eyed pike. This brought an appropriation from the legislature to establish the hatchery at Woodruff in 1901.

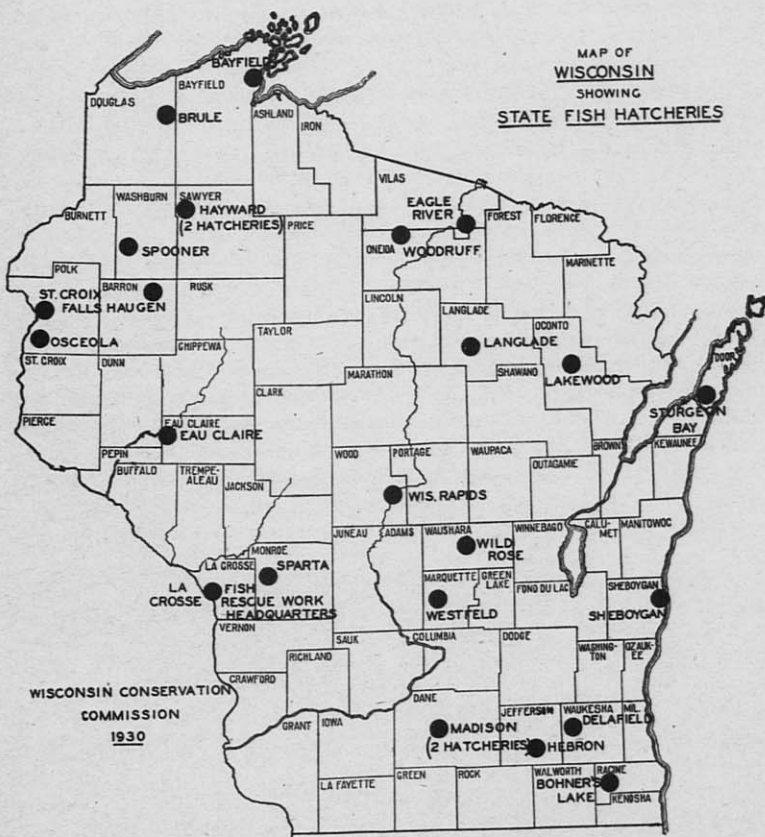
Having a bass hatchery in the northern part of the state brought a demand for one in the southern part of the state and the Delafield hatchery was established in 1907. Next, with the increased need for a larger distribution of brook, brown, and rainbow trout than it was possible to obtain from the Madison and Bayfield hatcheries, the Wild Rose trout hatchery was built in 1908.

Following 1908 interest became keen to increase efforts for the production of commercial species of fish for the Great Lakes. This interest culminated in building the two commercial fish hatcheries at Sturgeon Bay and Sheboygan in 1911. These two hatcheries have been in continuous operation since that time.

A greater need was soon felt for more hatcheries to propagate lake fish. In 1914 a pike hatchery was established at Spooner and

in 1915 a pike hatchery was built at Eagle River and a temporary structure which could be used for hatching pike in the spring, was built in Tenney Park in Madison.

All these hatcheries continued to operate along recognized lines of activity. In 1919 Wisconsin began the program in the Middlewest of rearing fish to a larger size before planting. This necessitated



building hatcheries where there was sufficient water and room to construct rearing ponds or series of raceways in which the fish could be raised to a fingerling size or larger before being planted. The St. Croix Falls hatchery was the first established under this new program. It was built in 1919.

About 1923 the conservation commission thought it advisable to establish several small part time rearing hatcheries where suitable sites and water supplies could be found. In that year hatcheries were built at Westfield, Hayward, and Lakewood. In 1925 to round

out the brook trout propagation and rearing program and at the same time to acquire a large stock of spawners, the commission leased the Troutmere hatchery at Osceola from A. Hansen, the owner. The lease extends for a ten-year period and the state has the option of buying the property at any time for \$40,000.

In 1926 the conservation commission entered into a co-operative program with the Nekoosa-Edwards Paper Company whereby the company constructed a rainbow trout hatchery on their property at Nepco lake near Wisconsin Rapids. This hatchery has been operated by the state.

Two more pike hatcheries and four more trout hatcheries were added by the action of the legislature of 1927. The pike hatcheries were built at Birchwood and Haugen. Both of these hatcheries were built with funds raised by popular subscriptions.

The four trout hatcheries ordered built in 1927 are located at Eau Claire, Brule, Sparta, and at Crystal Springs near Antigo in Langlade county. The city of Eau Claire donated to the state a site for the hatchery in the city park at the headwaters of Little Niagara creek. The Brule hatchery was built by sportsmen's organizations of Douglas county and presented to the state. The Sparta hatchery was located in the old city water works building, the use of which was donated in a 99-year lease by the city. The Langlade county hatchery was built on a site donated to the state by the Langlade County Fish and Game Protective Association.

In 1928 a site for a wall-eyed pike hatchery in Jefferson county was given to the state by George Van Lone and Leon Marshall, near Hebron. This hatchery was built with funds appropriated by the 1925 legislature.

In 1929 a site was finally found and purchased to build a new bass and wall-eyed pike hatchery in the southern part of the state which had been ordered by the legislature of 1927. After a long search, a suitable site was found at the outlet of Bohner's lake in Racine county.

It was found however, that the high price of the land and the rough topography made it impossible to build a hatchery and pond with the available appropriation from the 1927 legislature so an additional appropriation of \$10,000 was granted by the 1929 legislature. A hatchery and an 11 acre bass pond were finished in the fall of 1929 and in operation for the first time in the spring of 1930.

Today Wisconsin has 25 hatcheries which are annually producing more than 300,000,000 fish for distribution and planting in Wisconsin waters. It is mainly due to state fisheries activities that Wisconsin still has a reputation for good fishing despite the constantly increasing demand put upon the lakes and streams of the state by fishermen from Wisconsin and visitors to the state.

Propagation

The general policy of the conservation commission of Wisconsin is to propagate and plant all kinds of native game and food fishes

in the streams and lakes of the state; to rid the lakes and streams of fish which are detrimental to and retard the progress of game fish; and to make the distribution of fish as complete as possible.

The methods employed in the hatcheries of Wisconsin are those which for years have been in use in all fish culture operations. Trout are hatched in long hatching boxes with trays of eggs, one upon the other, with an empty tray on top, and a wedge or brace to hold them in place in the hatching tank. The hatching tanks are arranged to that the water will run from one compartment to another with water going up through the eggs and fish at all times. This is the method employed in handling all kinds of trout.

Wall-eyed pike and all kinds of eggs which are hatched in glass jars are handled in what is known in Wisconsin as the Chase jar. The jars are placed on a framework of wood known as a battery and the water is introduced into the bottom of the jar by means of a rubber hose and galvanized tube, causing the water to pass through all the eggs in the jar before it runs out over the lip at the top of the jar.

Pond culture, or fish work with nest-building warm water fish, such as members of the sunfish family, is carried on in large ponds or lakes. The adult fish are paired off by putting a certain number of males and females in each pond and allowing them to follow their natural methods of nest building and egg laying and hatching. After the young fish are hatched and are large enough, they are taken out of the ponds and planted in lakes and rivers to which they are well adapted.

Hatching Activities and Improvements

1. The Madison trout hatchery is the oldest in the state and is located five miles southwest of the city. Brown and rainbow trout are hatched and raised at this station. Eggs are collected from the large stock of parent fish held for that purpose and hundreds of thousands of both species of trout are distributed from the Madison hatchery each year both to streams for planting and to other hatcheries for rearing.

The property at the Madison hatchery consists of 63 acres of land and 11 buildings. Because of its proximity to the city, the Madison hatchery is a favorite place for picnicking and great crowds of people frequent the grounds every day during the summer. A grove of fine old oak trees and the general topography of the land make it a pleasing park.

Many improvements have been carried on at the Madison hatchery during the biennium. A large open pond at the rear of the hatchery building was filled in and 250 feet of concrete raceway were built across the pond improving the appearance and facilitating the holding of fish. A mile of electric light line was erected, bringing the Madison city service to the hatchery grounds. There were 900 feet of concrete walk built around the hatchery and grounds, and 800 feet of concrete raceway repaired in addition to the 250 feet of new race-

way. Sixteen new rearing troughs were built and the bottoms of several ponds were covered with fresh rock.

2. The Bayfield hatchery is the second oldest hatchery in the state and is located on highway 13 between Ashland and Bayfield on the shore of Chequamegon bay about two miles from Bayfield. At this hatchery both commercial and game fish work is done. Lake, brown, and brook trout are all hatched at this station. The lake trout eggs are gathered from Lake Superior and all fish hatched from them are planted back into the lake. The brown and brook trout are planted throughout the state, most of the brown trout being planted in the southern part of the state in streams which are no longer adaptable to brook trout. All brook and brown trout eggs are collected from stock fish which are raised at the hatchery.

At this hatchery there are 502 acres of land, eight buildings, 40 ponds, 1500 feet of raceway, 6700 feet of pipe line. The following repairs and improvements have been made at this hatchery during the past biennium.

Six new rearing ponds, and the rearing capacity of the hatchery for bringing fish up to fingerling size has been increased from 42 to 94 tanks. The stock fish on the grounds have been increased very materially, four new artesian wells have been drilled, all buildings have been repaired and painted, and the grounds and buildings maintained in their usual excellent condition.

3. The Woodruff hatchery, the third oldest station in the state, is located on highway 47, two and one-half miles southeast of Woodruff. This hatchery is the center of all operations for wall-eyed pike egg collection in the northern part of the state during the spring. All equipment for the work is stored here and all eggs shipped to other pike stations throughout the state are sent out from the Woodruff hatchery.

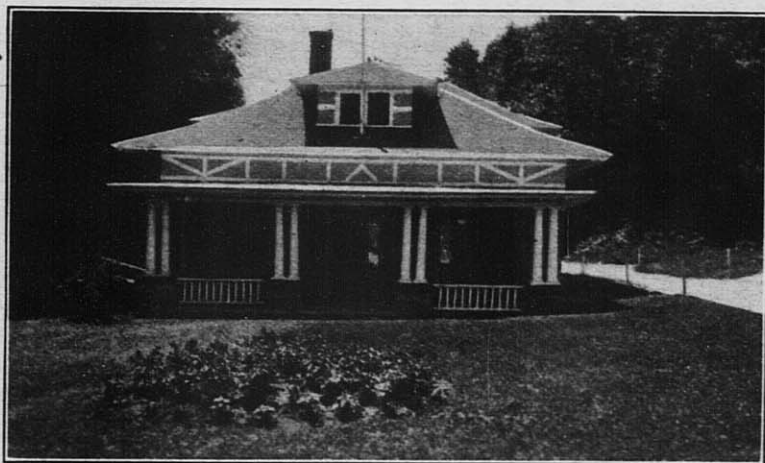
Wall-eyed pike, black bass, muskellunge, and pickerel are all hatched at the Woodruff hatchery. The muskellunge, pickerel, and pike are hatched in glass jars; black bass in two large rearing ponds and a lake which are on the grounds.

There are also five ponds where a muskellunge rearing experiment has been carried on for several years. The muskellunge fry are put into the ponds soon after the food sac is absorbed, and during their early stages they are fed with small aquatic life gathered from nearby lakes. After 10 to 14 days of feeding on the crustacea they are large enough to take larger food and are supplied with small fish until they are four months old. At this time they vary from six to eight inches in length. This is the age at which they are distributed for planting.

The Woodruff hatchery property comprises 275½ acres of land, seven buildings, seven ponds, one lake, and 2,200 feet of pipe line which conducts the water supply from Carroll lake to the hatchery and ponds. The following improvements were made during the biennium.

A new net house with a cement floor, 30 feet wide, 50 feet long, and 12 feet high was built. All buildings on the grounds were repainted and thoroughly repaired. A lighting plant was installed which furnishes light for the grounds and all buildings.

A new one and one-half ton Ford truck was added to the transportation equipment, and a new pump and engine were installed for use on the grounds and the hatchery. New nets and other equipment including 1,800 net stakes, necessary for pike egg collecting operations, were constructed, and a new steel pipe line was laid from the main water line to the hatchery building to replace the old pipe line which has always given trouble because of the growth of tree roots into it which clogged it up. The new pipe line will eliminate all this trouble in the future.



Woodruff State Fish Hatchery.

4. The Delafield hatchery is located in Waukesha county on highway 30 in the village of Delafield. It is devoted entirely to the hatching of wall-eyed pike and the hatching and rearing of black bass.

The property consists of 32 acres of land, six ponds, an excellent hatching building, 1,430 feet of pipe line. The water supply for the hatchery and ponds is drawn from Nagawicka lake.

5. The Wild Rose hatchery is located one mile north of the village of Wild Rose on highway 22 in Waushara county. It is one of the most beautiful hatcheries in Wisconsin. There are many native trees on the grounds and in 1916 more than 6,000 Scotch and white pines were planted on the hatchery grounds, some of which are now 25 feet in height. Spacious lawns make the hatchery grounds an ideal place for picnics and thousands of people visit the grounds during the summer months.

Brown and rainbow trout are hatched and reared at this hatchery.

All eggs handled at this station are taken from parent fish held in the ponds.

There are 32 ponds, 1,200 feet of pipe line and five buildings. In the last two years all the buildings were painted inside and out and some new roads and walks have been built on the grounds. Several new ponds have been constructed and the ice house, meat house, garage, workshop, and tool house have all been rebuilt. The fish car barn where the Badger No. 2 is stored, is located at Wild Rose. This building has been sealed on the inside, new windows have been installed in it, a new roof has been put on and the entire building has been painted. The old concrete raceway has been rebuilt and concrete floors and approaches have been put in the new buildings.

6. As Sturgeon Bay and Sheboygan hatcheries are identical both in construction and operation, description of one applies to the other. The only difference in the two places is in the water supply. At Sturgeon Bay the water is pumped from the bay by a co-operative arrangement with the city pumping station. At Sheboygan the city water is used.

Living quarters for the hatchery superintendent are provided for on the second floor of each of these hatcheries. They are electrically lighted and steam heated. Each of the hatcheries has a capacity of 2,500 quarts of green eggs and each year the hatcheries are filled to capacity. All the young fish hatched from the eggs are planted in the lakes on the fishing grounds from which the parent fish were taken.

Eggs for propagation work of the two commercial species, lake trout and whitefish, are obtained from commercial fishermen under an agreement with the state whereby the state issues a permit to the fishermen to operate during a portion of the closed season when the fish are spawning. The fishermen under state supervision, collect the eggs and deliver them to the hatcheries. For remuneration the state gives them the fish taken during the spawning operations.

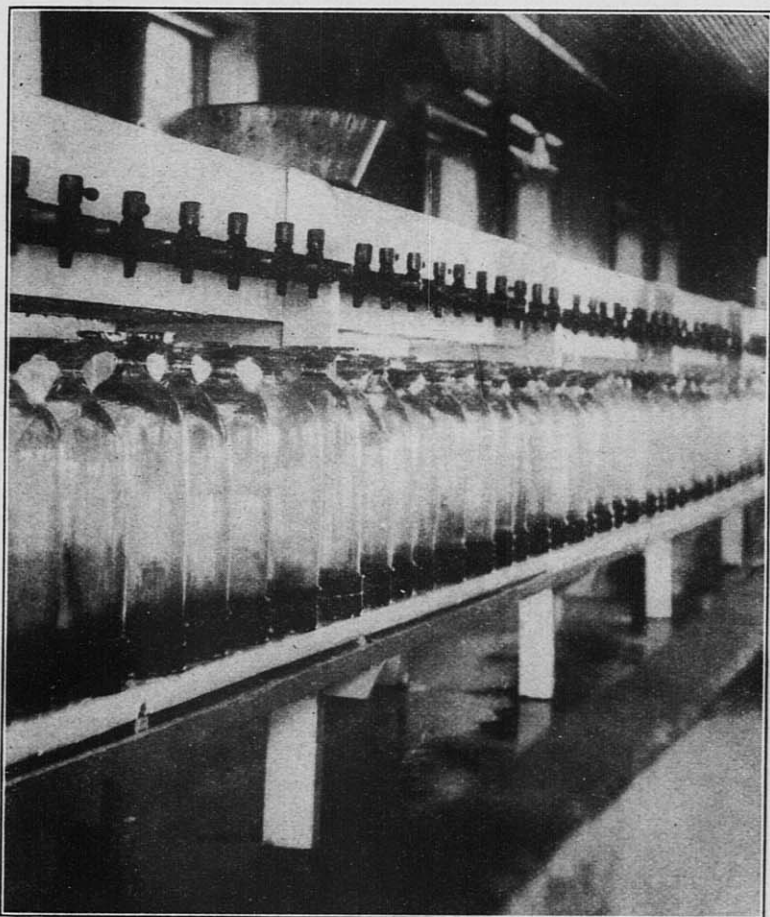
Lake trout egg collection begins after the commission has made tests to determine that the fish are ripe for spawning, and continues until the state orders it closed after a sufficient number of eggs have been taken to fill the hatcheries. Lake trout eggs are incubated during the coldest part of the year and are held in the hatchery after hatching, until the food sac is practically absorbed before distribution.

Wall-eyed Pike Hatcheries

Wall-eyed pike eggs are hatched at 10 hatcheries located at Delafield, Woodruff, Eagle River, Hayward, Birchwood, Haugen, Bohner's lake, Hebron, Spooner, and Tenney Park in Madison. Hatcheries at Bohner's lake, Woodruff, and Delafield carry on propagation work in addition to wall-eyed pike, but activities at each of the others are restricted to pike operations.

By far most of the pike eggs collected in Wisconsin are taken from the inland lakes of the northern part of the state from parent fish which are caught with hoop nets on the shores of the lakes in the

spring soon after the ice goes out. The pike is the second of the spring spawning fish to come on to the shores to deposit eggs, the pickerel being the first. At about the same time the pike are spawning, muskellunge spawn, and as the season advances, members of the sunfish family like the bass, crappies, etc., start their spawning activities.



Single hatching battery in a pike hatchery.

The hatcheries which are used exclusively for pike are small buildings, 20 by 50 feet, and are supplied with batteries containing glass jars to hatch the eggs. The capacity of the batteries varies from 100 to 200 jars.

Incubation of wall-eyed pike eggs takes from 10 to 21 days depending upon the temperature of the water and the weather. The

warmer the weather and water, the quicker the hatching takes place. The little fish begin swimming immediately after hatching and follow the current through the jars out into a large tank in which they are held for distribution. They are distributed and planted as soon as possible after hatching.

Each of the 10 pike hatcheries has a capacity of 40,000,000 to 50,000,000 pike. During the biennium each of the pike hatchery buildings has been painted.

7. The St. Croix Falls hatchery is located in Interstate Park within the village limits of St. Croix Falls. Activities at this station were started in 1919 in an old flour mill which was later remodeled into what is probably the most unique fish hatchery building in the world. Each one of the four floors in the building is used for hatching purposes and is made possible because the water supply is obtained from a high hill immediately across the road from the building which gives sufficient fall to bring the water into the fourth floor of the hatchery. This arrangement is inconvenient as it necessitates an excessive amount of stair climbing to feed the fish.

The hatchery at St. Croix Falls is the first place in the state where successful rearing operations for brook and brown trout were carried on. On the brow of the hill across the road from the hatchery building, is a long raceway containing 18 rearing ponds. On the hillside series of raceways have been built in such a way that the water passes from one to another through open ditches and over stones, becoming completely aerated between the ponds. This system is so successful that the same water can be used in 10 rearing ponds on the hillside before it is finally conducted to the river. In addition to the hillside series of raceways, a large rearing house has been built on the same level as the hatchery building and the water is conveyed to this building in the same way it is taken to the hatchery.

The property of the St. Croix Falls hatchery includes the hatchery building, two residence buildings, one rearing house, one hatching house, and 28 concrete ponds and raceways. During the biennium the buildings have all been painted, both on the inside and outside, the two residences remodeled, and the grounds have been made into lawns.

Eight-inch tile water mains have been laid 12 feet deep for 935 feet of line, and 750 feet of galvanized pipe was laid to conduct a water supply to the ponds. Concrete sidewalks have been built around the residences, and retaining walls have been built on the brow of the hill and around the back of the hatchery above the river. Old wooden sills were replaced with concrete sills in the main building, one new gas engine was installed, and 160 feet of new water main were laid under the ground to conduct a better quality of water into the hatchery building.

8. The Westfield hatchery is located at Westfield, two blocks west of highway 51. The propagation of brook and brown trout at this hatchery has been very successful. The water is secured from

artesian wells varying in depth from 65 to 225 feet. The temperature of the water never changes more than one degree and its supply seems inexhaustible.

The property of the Westfield hatchery, nine and one-half acres of land, consists of four buildings, 20 rearing ponds built in raceways, and a superintendent's home. The five acres of land on which the buildings are located, are cleared of trees, but there is a grove on the other four and one-half acres which can be ultimately used for additional series of raceways.

9. The trout hatchery at Hayward was established in 1923 and is located about three miles from the city of Hayward on Highway 77. The land and water rights were donated to the state by Robert Peigh and the Hayward Rod and Gun Club. There is also a wall-eyed pike hatchery at Hayward which is owned by the county and operated by the state.

The Hayward trout hatchery is operated part time every year in rearing brook trout. The supply of trout for the Hayward hatchery is sent from the larger trout hatcheries in the state when their ponds become overcrowded as the fish grow.

The property of the Hayward hatchery consists of 34 acres of land including a right of way to the hatchery from highway 77, a large reservoir for water supply, hatchery building, rearing building, ice house, and four rearing ponds.

10. The entire property of the Osceola hatchery has been leased from A. Hansen of Osceola, for state brook trout propagation activities. Approximately half of the water supply is obtained from artesian wells insuring a constancy of temperature. The balance of the water is taken from a stream which flows through the grounds.

At the lower end of the hatchery grounds a dam has been built across the stream to develop waterpower for generating electric current to light the buildings and grounds and furnish power for grinding the fish food and pumping water needed in rearing ponds.

At another level, another dam has been built creating a pond 350 feet long, 150 feet wide and 20 feet deep below which a large rearing house has been constructed 110 feet long, 30 feet wide which is supplied with water from the pond. This rearing house holds 90 troughs each of which is 18 inches wide, 14 inches deep, and 14 feet long.

By the time the artesian water from the hatchery reaches this reservoir which is nearly a mile from its source, it is warmed up enough to enhance the growth of the trout. Brook trout prefer water not warmer than 65 degrees and grow faster in the water at approximately that temperature.

The property of the Osceola hatchery consists of 230 acres of land, three houses, an old hotel building, a hatching house, a rearing house and five other buildings. In addition there are several thousand feet of raceway and ponds for holding adult trout from which eggs are taken for hatching purposes.

11. The Wisconsin Rapids hatchery is used only for raising rainbow trout, and is located about three miles from Wisconsin Rapids in

Wood county on Nepco lake. The buildings and grounds are owned by the Nekoosa-Edwards Paper Company.

When the paper company built Nepco lake to procure a pure water supply for the paper mill, it was proposed to them by the Wisconsin Conservation Commission that they establish a fish hatchery as a means of stocking the lake. It was agreed that the commission would furnish the fish and operate the hatchery and as remuneration for the use of the building, one-half of the fish raised were to be planted in Nepco lake.

This hatchery was established in 1926 and used as a rainbow trout hatchery since that time under this agreement.

12. The Eau Claire hatchery is a brook trout hatchery located in one of the parks of the city of Eau Claire and was built from a legislative appropriation in 1927. The water supply which is excellent, is secured from two wells. Most of the fish raised at the Eau Claire hatchery are planted locally and applicants usually call for the fish at the hatchery, saving the expense of railroad distribution. Equipment includes besides the hatchery building, 32 rearing troughs with a capacity of 1,000,000 trout.

13. The Sparta hatchery, since its establishment in the old city water works building in Sparta, has been in operation each year hatching brook and brown trout and rearing them to a large fingerling size. Most of the fish from this hatchery are planted locally and are called for at the hatchery.

14. The Brule brook trout hatchery is located in Brule State Park about one mile south of the village of Brule on county trunk H in Douglas county. Water is secured from a pond above a dam built across the Little Brule river.

The expense of the construction of the dam and hatchery was borne by sportsmen's organizations of Douglas county, and when completed the site was presented to the conservation commission. There are five rearing ponds in the Brule hatchery, and brook trout have been raised to fingerling size each year since the station was established in 1927.

15. Propagation efforts for wall-eyed pike, bass, and other sunfish, are carried on at the Bohner's lake hatchery which is located three miles south of Burlington at the outlet of Bohner's lake from which the water supply is secured.

This hatchery was put in operation for the first time in the spring of 1930 and bass were raised very successfully from the stock of parent fish in the 11 acre pond which was built between the hatchery building and the lake by building a dirt dike 1,400 feet long. A large percentage of the bass hatched was retained in the pond during the summer and allowed to grow to fingerling size before being distributed.

The property at Bohner's lake hatchery was acquired during the biennium and a hatchery building with living quarters on the second floor for the superintendent was built during the winter of 1929-1930. In addition to the hatchery building and the pond there are several

small rearing ponds constructed of concrete. Artesian wells supply the water for these ponds.

16. The Langlade county hatchery is located on county trunk A, 14 miles from Antigo on land donated to the state by Charles W. Fish. A dam has been constructed across the overflow from Crystal Springs, the headwaters of the eastern Eau Claire river, creating a reservoir pond to supply water for the hatchery. Brook trout are hatched and reared for distribution in Langlade and nearby counties, at this hatchery.

The Langlade county hatchery was built in 1928 and the entire property includes the hatchery building, four rearing ponds and a garage.



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

Distribution

Distribution of fish from hatchery to lakes and streams, or to rearing ponds, begins in Wisconsin in the early spring as soon as the wall-eyed pike eggs begin to hatch. Pike are the first fish to be distributed because they are the first to hatch and must be planted as soon as possible after hatching. The food sac on infant wall-eyed pike is quickly absorbed and if the fish are to survive, they must be planted before the sac is completely absorbed.

Just before the beginning of the biennium the division of fisheries designed a new type of fish distribution truck of which two are now in use. Each truck has a capacity of 100 cans of fish so that one trip from a hatchery to the railroad by the two trucks will transport 200 cans, the maximum capacity of the fish car. Each of the trucks is supplied with a special air compressing unit with pipe lines running lengthwise across the body of the truck so that an air line can be placed in each can. This aeration prevents loss of fish during transportation.

The commission owns one railroad fish car, the Badger No. 2, which is inadequate to distribute the entire output of the hatcheries. The

Chicago and Northwestern Railroad loans to the state each summer two steel baggage cars which are transformed into fish distribution cars with aeration systems similar to the one in the Badger No. 2.

The Badger No. 2 is put in operation early in the spring and is kept in operation until all the distribution work is done late in the fall. As soon as pike distribution is finished, the car is used to transfer fish rescued from various places in the state other than the Mississippi river, to points for planting. Trout distribution begins immediately following the distribution of the rescued fish and continues until late in the fall.

In August when the extensive fish rescue activities are started in the Mississippi river bottoms, one of the three distribution cars is kept busy constantly distributing these rescued fish. Distribution of 20 months old trout which are reared at several of the hatcheries, is the last work of the fish cars each fall. The element of timeliness is vital in the distribution of these adult trout as when planted they are almost ready to spawn and must reach the streams before spawning begins.

State Rearing Activities

The commission has expanded its policy of rearing to a larger size all fish which can be reared prior to distribution. In addition to carrying on rearing activities with the species, principally trout, about which much is known, the commission has also conducted rearing experiments with other species hitherto considered impossible to rear. Among these latter are wall-eyed pike and muskellunge.

Many new rearing ponds have been built at the trout hatcheries, and distribution of adult brook and brown trout has assumed larger proportions than ever before. During the first year of the biennium more than 46,000 adult trout were distributed and planted in streams selected after a state wide survey had been made. The second year this number was practically doubled and the fish were distributed according to the same plan. These adult trout are large enough to spawn when planted and large enough to catch the following season.

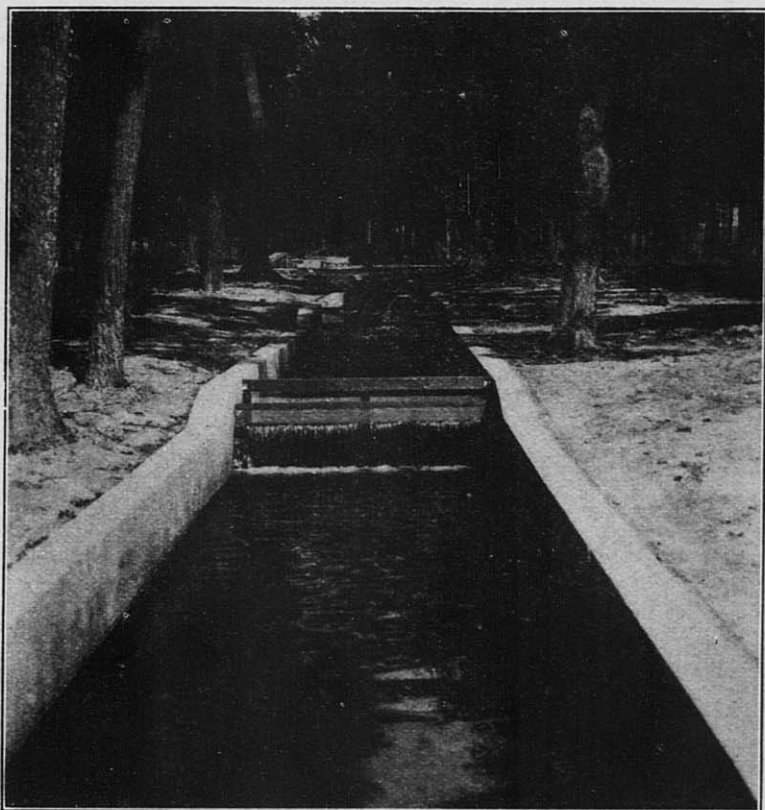
Co-operative Rearing Program

The commission made a definite appeal to sportsmen's groups and interested individuals throughout the state to co-operate with the state department in the rearing of trout. Prior to the opening of the biennium there were very few privately owned and operated rearing ponds toward which the commission was acting in an advisory and co-operative way. In the spring of 1929 a letter was sent from the commission to the secretary of each sportsmen's group, offering to furnish plans and suggestions for the building of rearing ponds, and to make inspection of available sites.

A similar letter was sent during the second year to the groups which had not responded the first year. At the close of the two-year period there were 184 privately owned and operated rearing ponds located in 75 places in the state. The fisheries division co-

operated with them all, and furnished 3,068,205 trout to them during the biennium.

Both brook and brown trout are distributed from state hatcheries early in the spring to these co-operative rearing ponds, the brook trout being sent to the central and northern portions of the state, and the brown trout to the southern part. It is understood by the



One series or raceway of rearing ponds at the Westfield trout hatchery.

sportsmen's groups or individuals operating the rearing ponds, that when the fish are to be planted, some representative of the state fisheries division will be present to report on the success of the rearing experiment.

Mississippi Rescue Activities

One of the most interesting and vitally important phases of the fisheries program in Wisconsin is the rescue work carried on in the river bottoms every summer and fall when receding water in the river leaves hundreds of landlocked pools and lakes throughout the

bottoms. These landlocked bodies of water gradually dry up during the dry periods of the summer and fall, and millions of fish would perish if it were not for the rescue work carried on by the fisheries departments of Wisconsin, Minnesota, Iowa, and the federal government.

The river bottoms of the Mississippi are divided into territories to be worked by the fisheries departments of the several states and the federal government so that there will be no duplication of effort. The methods of rescue are similar for each division. Crews consisting of five men each with boats, nets, tubs, and other equipment to rescue stranded fish, seine all bodies of water in the river bottoms which are not connected with the main channel. Practically all of the fish rescued—more than 95 per cent—are returned immediately to the main channel of the river. The balance is taken in live boats to the Mississippi river conservation headquarters at La Crosse. Here the fish are held in tanks until a railroad carload is obtained when they are shipped out for distribution to inland lakes and rivers.

By far most of the fish rescued from the sloughs are small. Parent fish which go into the sloughs early in the spring to spawn, leave the spawning pools immediately when the water begins to foul. The small fish are not large enough to leave the sloughs before the waters become landlocked. It is very seldom that adult fish are found in landlocked pools.

An interesting phenomenon noticed by rescue men is that each year some one species is found in preponderance and that seldom is the same species found in preponderance two years in succession. Many species are found including pickerel, bass, catfish, bullheads, and carp.

Other Rescue Work

The fisheries division also carries on rescue work at other places in the state. Below the dam across the Fox river at Neenah extensive rescue operations save thousands of white bass and perch each year. These fish collect in the eddies formed by the wheels of the paper mills at Neenah. The small bass go over the dam early in life and remain in the water below the dam. When they grow to a fingerling size and begin swimming against the current, they congregate in large numbers immediately below the wheels of the mills.

The congregation of large numbers of fish makes it possible for rescue crews to take them out in large quantities. As many as 3,000,000 of these fish have been rescued from below the dam in one year, and planted back in Lake Winnebago. When the numbers warrant it, a small distribution of white bass rescued here is made throughout the state and very good results have been obtained in many waters where these fish have been planted.

A new rescue activity was begun during the biennium in flowages above power dams on some northern rivers. These flowages which do not have constant levels, frequently cause the death of thousands of fish which become stranded around the edges of the flowage when

the water is lowered. As many as 6,000 adult fish, including six species, were rescued from one flowage where the water had been backed up over what was once a wooded country. These fish were all planted in lakes in the immediate vicinity of the flowage.

Fish Refuges

A well-rounded fisheries program includes protection of fish in their natural reproduction as well as production of fish in hatcheries. To carry out the protection of natural reproduction the commission established a large number of fish refuges in desirable places throughout the state on known spawning and rearing grounds.

Refuges are established in both streams and lakes. The great majority of stream refuges are for the protection of trout in spawning grounds and places in which the infant fish stay until they are large enough to venture into the main streams. Trout refuges are always established in small feeder creeks to trout streams. Trout refuges continue in effect throughout the year.

Another reason for the establishment of fish refuges in streams and rivers is to protect fish in places where they congregate due to artificial impediments in the stream. Under certain dams where there are no fishways, or inadequate fishways, large numbers of fish congregate and stay for long periods of time, an easy prey to either legal or illegal means of fishing. Closing such areas does much to protect these fish in unnatural gathering places. Such refuges also continue in effect throughout the year.

The third kind of fish refuges are those established in lakes on known spawning grounds of lake fish, notably bass. Such refuges are necessary as bass usually spawn in June during the open season for other kinds of lake fish. Setting aside certain areas as refuges on known spawning grounds protects these late spawners from undue disturbance and results in a greater efficiency in natural reproduction. Such refuges are seasonal, extending until July 1 each year.

Removal of Rough Fish

A complete fisheries program includes artificial propagation; rearing; protection of natural spawning and rearing grounds; and the regulation or removal from the waters of foreign substances injurious to the fish, and of undesirable rough fish. The conservation commission for many years has authorized by contract the removal of rough fish, principally carp and buffalo, from inland lakes, and for the past two or more bienniums there has been an annual appropriation for the removal of all kinds of rough fish from Winnebago waters.

During the biennium the commission has taken another step in the removal of injurious fish and by special appropriation, is removing undesirable rough fish from the northern lakes. This work is carried on during the spring at the time when suckers and other rough fish are spawning.

Stream and Lake Survey

To compile statistical information which will assist in the scientific distribution of fish, the commission during the biennium, has made

a stream and lake survey of all the waters in the state. All the information compiled has been arranged in a card index, each lake or stream listed on a separate card.

This survey constitutes the most accurate checking of the inland waters of the state that has ever been made, and the information compiled during the survey will prove of increasing importance in years to come. The following is a sample of the information listed for lakes. Cards for the stream survey are very similar.

LAKE SURVEY

.....	Fish rec.
County Section Township Range	
Nearest station	Distance
Nearest state highway	Distance
Nearest county highway	Distance
Name of outlet	Tributary to
Pollution	
Nearest dam	
Vegetation	Abundance
Small fish for food	
Bottom (mud, sand or gravel)	
Character shore line	
Current	Country (rolling or flat)
Private or public	Length
Greatest depth	Average depth Average width
Species fish (present)	Abundance
Species fish (past)	Abundance
Kinds planted	
When	Results
Investigator	Address Date.....
Condition of roads	
Recommended for refuge	
Resorts on lakes	
Accommodations for how many guests	
.....	

POLLUTION

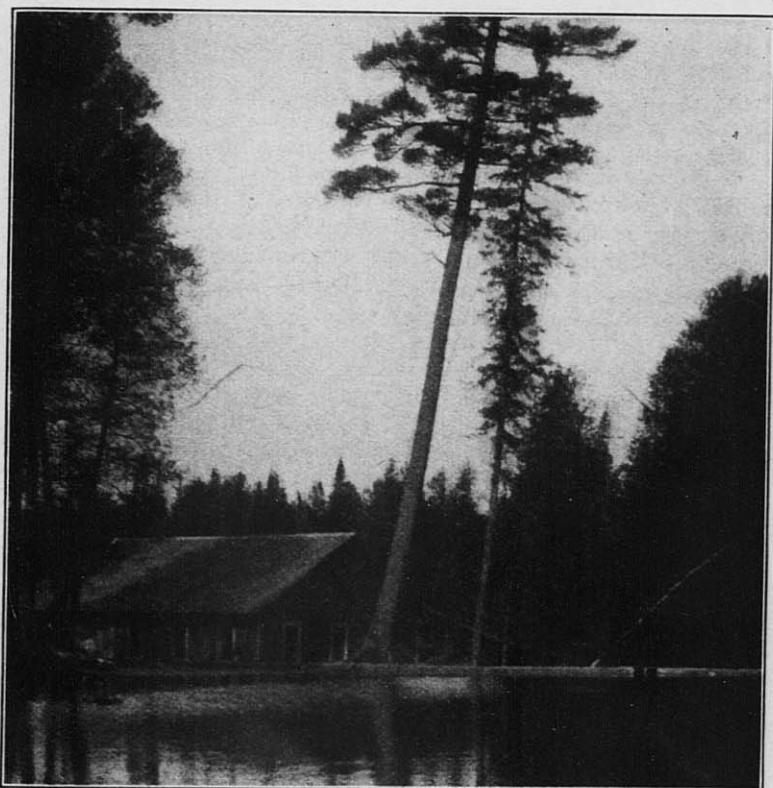
Stream and lake pollution is a problem to which an increasing amount of attention in recent years has been paid by every one interested in conservation of fish resources. The State Board of Health has direct control of the solution of pollution problems in Wisconsin waters. The conservation commission co-operates with the State Board of Health in all possible ways and is represented on the state committee on water pollution.

COMMERCIAL FISHING

There are two types of commercial fishing supervised by the conservation commission, the Great Lakes commercial fishing for food fish, and the inland waters and Mississippi river commercial fishing for food and rough fishes. The Great Lakes, Green Bay, and Mississippi river commercial fishing is carried on under license granted by the conservation commission. The commercial fishing for carp, buffalo, and other rough fish in inland waters, is conducted under con-

tract by private fishermen and under direct supervision of a supervising warden.

The state operates three hatcheries at which commercial species of fish are hatched for planting in the Great Lakes. These are located at Sheboygan, Sturgeon Bay, and Bayfield. It is interesting to note that although most species of commercial fish caught in Lake Michi-



Crystal Springs State Fish Hatchery, Langlade county.

gan have been decreasing alarmingly, the catches of lake trout—the species to which most attention is paid at the hatcheries—have remained practically the same during the past decade.

The inland lakes' commercial operations are important from both the food and financial standpoints. Hundreds of tons of carp and buffalo are removed each year, all of which are consumed as food in eastern cities. Prices which the private fishermen receive for their catches of carp and buffalo vary from eight cents to 15 cents per pound of which the state receives 25 per cent.

Exchange of Breeding Stock

In order that the high strain of Wisconsin brook trout may be retained, the commission several years ago established the policy of exchanging eggs with different states to develop a new and stronger species. Each year Wisconsin exchanges millions of hatchery eggs for wild brook trout eggs taken from fish caught in streams of Canada and Montana. Eggs received in exchange are of an excellent quality and produce strong, healthy fish.

Scientific Studies

During the biennium the fisheries division has encouraged and operated in scientific studies and investigation concerning several phases of the fisheries program. These include projects in co-operation with the state committee on water pollution, the natural history division of the Wisconsin Geological and Natural History Survey, the University of Wisconsin, the State Department of Agriculture and Markets, and with the federal bureau of fisheries.

These studies include a number of subjects. The study being conducted by the state committee on water pollution is an attempt to determine the toxic or poisonous effect on fish life of various types and concentrations of industrial wastes.

The study being conducted by the Wisconsin Geological and Natural History Survey, concerns the fish foods produced in lakes in various parts of the state. These studies deal with the physical and chemical factors which affect the production of this food material, as well as with the amount produced.

One important scientific discovery was made by University of Wisconsin men at the Madison hatchery. This concerned a goitrous condition occurring in trout, and proved that proper use of certain iodine solutions was an effective treatment.

The land economic inventory conducted co-operatively by the State Department of Agriculture and Markets and the commission, is yielding much valuable information which will affect the planting of fish in the future. This inventory is locating all lakes by section, town, and range, and classifying them according to original outlets, channels, shorelines, depth, and hardness of water. In addition, fish scales are collected to aid in determining the relative growth of fish in different waters which indicates the amount of available food and the general suitability of waters for certain species of fish.

The Wisconsin Conservation Commission, in co-operation with the United States Bureau of Fisheries, the Department of Conservation of the State of Michigan, and several fish net and twine companies, is conducting an extensive investigation of chub fishing in Lake Michigan to determine what size mesh should be employed by commercial fishermen in Lake Michigan waters. Data are also being accumulated on the biology of the various species taken in the nets, especially chubs and lake trout, and on the factors involved in the distribution of these species.

DISTRIBUTION BY HATCHERIES—1929

Hatchery	Quantity From Each Hatchery	Total Number From Each Hatchery:
Madison		
Brown Trout Fingerling	123,000	141,662
Brown Trout Yearling	18,600	
Brown Trout 2 yr. old	50	
Brown Trout Adult	12	
Bayfield		
Brook Trout Fingerling	823,000	8,445,000
Brown Trout Fingerling	1,765,000	
Lake Trout Fry	5,840,000	
Lake Trout Fingerling	17,000	
Wild Rose		
Brook Trout Yearling	5,414	651,446
Brook Trout Adult	292	
Brown Trout Fingerling	640,300	
Brown Trout Adult	420	
Rainbow Trout Fingerling	4,900	5,020
Rainbow Trout Yearling	85	
Rainbow Trout 2 yr. old	35	
St. Croix Falls		
Brook Trout Fingerling	3,284,000	3,303,040
Brook Trout Yearling	19,040	
Brown Trout Fingerling	195,060	
Osceola		
Brook Trout Fingerling	809,700	1,021,395
Brook Trout Yearling	22,050	
Brook Trout Adult	65	
Brown Trout Fingerling	189,500	
Albinos	80	
Westfield		
Brook Trout Fingerling	241,000	448,000
Brown Trout Fingerling	202,000	
Wisconsin Rapids		
Rainbow Trout Fingerling	40,000	40,000
Brule		
Brook Trout Fingerling rescued	582	882
Brown Trout Fingerling rescued	94	
Rainbow Trout Fingerling rescued	206	
Eau Claire		
Brook Trout Fingerling	205,200	501,400
Brown Trout Fingerling	296,200	
Sparta		
Brook Trout Fingerling	238,750	383,350
Brown Trout Fingerling	144,600	
Hayward		
Brook Trout Fingerling	198,500	49,155,000
Wall Eyed Pike Fry	49,155,000	
Tenney Park		
Wall Eyed Pike Fry	15,595,200	15,595,200
Minocqua		
Wall Eyed Pike Fry	51,726,000	52,240,348
Wall Eyed Pike Fingerling	600	
Black Bass Fingerling	139,500	139,520
Black Bass Large	20	
Muskellunge Fry	313,600	314,128
Muskellunge Large	528	
Pickereel	60,000	
Blue Gills	100	

DISTRIBUTION BY HATCHERIES—1929—Continued

Hatchery	Quantity From Each Hatchery	Total Number From Each Hatchery:
Delafield		
Wall Eyed Pike Fry	48,972,950	49,004,937
Black Bass Fingerling	15,900	
Black Bass Yearling	75	
Black Bass Adults	12	
Roach	15,500	500
Sunfish	500	
Eagle River		
Wall Eyed Pike Fry	31,921,000	31,921,000
Spooner		
Wall Eyed Pike Fry	20,248,450	20,248,450
Birchwood		
Wall Eyed Pike Fry	23,700,350	23,700,350
Haugen		
Wall Eyed Pike Fry	20,995,200	20,995,200
Hebron		
Wall Eyed Pike Fry	26,241,750	26,241,750
Sturgeon Bay		
Lake Trout Fry	12,950,000	13,750,000
White Fish Fry	800,000	
Sheboygan		
Lake Trout Fry	11,000,000	11,000,000
Gills Landing		
Pickeral Fingerling	20,726	20,726
Mississippi River Rescue Station		
Black Bass Fingerling distributed	50,000	12,605,048
Miscellaneous Fish Fingerling distributed	399,300	
Miscellaneous Fish returned to river	12,155,748	
Neenah		
White Bass Fingerling	359,000	1,031,700
Perch Fingerling	672,350	
Black Bass Fingerling	100	
Pike Fingerling	250	
Mercer Flowage		
Bass Adults	124	5,902
Pickeral Adults	34	
Crappies Adults	4,491	
Pike Adults	664	
Muskie Adults	589	
Total		342,840,346

FISH TRANSFERRED TO OTHER HATCHERIES

Wisconsin Rapids sent Wild Rose	
Rainbow Trout Fingerling	20,000

FISH EGGS SHIPPED TO OTHER HATCHERIES—1929

Madison		
Brown Trout Eggs	1,400,000	For hatching In exchange for brook trout eggs
Rainbow Trout Eggs	972,000	
Wild Rose		
Brown Trout Eggs	1,020,000	For hatching In exchange for brook trout eggs
Rainbow Trout Eggs	1,921,800	

DISTRIBUTION BY HATCHERIES—1929—Continued

Hatchery	Quantity From Each Hatchery	Total Number From Each Hatchery:
St. Croix Falls		
Brook Trout Eggs.....	100,000	In exchange for rainbow trout eggs for stock fish at Wild Rose
Osceola		
Brook Trout Eggs.....	2,534,800	for Hatching
Total.....	7,948,600	
Fish from Federal Fisheries delivered by State Fish Cars 1929		
Miscellaneous Fish.....		67,705

DISTRIBUTION BY HATCHERIES—1930

Bayfield Hatchery		
Brook Trout Fingerling.....	1,345,000	9,698,500
Brown Trout Fingerling.....	600,500	
Lake Trout Fingerling.....	706,000	
Lake Trout Fry.....	7,047,000	
Birchwood Hatchery		
Wall Eyed Pike Fry.....	25,200,000	25,200,000
Brule		
Brook Trout Fingerling.....	180,000	180,741
Brook Trout Yearling.....	505	
Brown Trout Yearling.....		53
Rainbow Trout Yearling.....		183
Burlington		
Wall Eyed Pike Fry.....	35,200,000	35,441,132
Black Bass Fry.....	197,200	
Black Bass Fingerling.....	40,810	238,010
Pickereel Fingerling.....		3,122
Deerbrook		
Brook Trout Fingerling.....	124,250	124,250
Delafield		
Wall Eyed Pike Fry.....	30,000,000	30,246,225
Black Bass Fry.....	197,500	
Black Bass Fingerling.....	33,675	231,175
Roach.....		15,000
Wall Eyed Pike Fingerling 7".....		50
Eagle River		
Wall Eyed Pike Fry.....	35,100,000	35,100,000
Eau Claire		
Brook Trout Fingerling.....	566,628	727,128
Brown Trout Fingerling.....	160,500	
Haugen		
Wall Eyed Pike Fry.....	15,300,000	15,300,000
Hayward		
Wall Eyed Pike Fry.....	27,450,000	27,472,800
Brook Trout Fingerling.....	22,800	
Hebron		
Wall Eyed Pike Fry.....	24,150,000	24,150,000
Madison		
Brown Trout Fingerling.....	200,000	216,795
Brown Trout Yearling and 8 mos.....	6,600	
Brown Trout Yearling.....	500	
Brown Trout 2 yr. old.....	50	
Brown Trout Adults.....	20	207,170
Brook Trout 20 mos. old.....		9,525

DISTRIBUTION BY HATCHERIES—1930—Continued

Hatchery		Quantity From Each Hatchery	Total Number From Each Hatchery:
Osceola			
Brook Trout Fingerling.....	641,450		855,147
Brook Trout Yearling.....	20,000		
Brook Trout Adult.....	97	661,547	
Brown Trout Fingerling.....		193,600	
St. Croix Falls			
Brook Trout Fingerling.....	797,650		819,300
Brook Trout Yearling.....	14,400	812,050	
Brown Trout Fingerling.....		7,250	
Sheboygan			
Lake Trout Fry.....		10,800,000	10,800,000
Sparta			
Brook Trout Fingerling.....		370,000	587,700
Brown Trout Fingerling.....		217,700	
Spooner			
Wall Eyed Pike Fry.....		21,150,000	21,150,000
Sturgeon Bay			
Wall Eyed Pike Fry.....		12,375,000	26,375,000
Lake Trout Fry.....		14,000,000	
Tenney Park			
Wall Eyed Pike Fry.....		15,810,000	15,810,000
Westfield			
Brook Trout Fingerling.....	317,465		
Brook Trout Yearling.....	7,470	324,935	
Brown Trout Fingerling.....		297,575	622,510
Wild Rose			
Brook Trout Yearling.....		10,200	215,549
Brown Trout Fingerling.....			
Brook Trout Yearling.....	203,600		
Brown Trout 2 yr. old.....	60		
Brown Trout Adult.....	25		
Brown Trout Adult.....	850	204,535	
Rainbow Trout Yearling.....	700		
Rainbow Trout Adult.....	64	764	
Mixed fish.....		50	
Wisconsin Rapids			
Rainbow Trout Fingerling.....		20,400	20,400
Woodruff			
Wall Eyed Pike Fry.....		41,400,000	42,595,388
Balck Bass Fingerling.....		65,700	
Muskellunge Fry.....	710,000		
Muskellunge Fingerling.....	1,152		
Muskellunge Adult.....	11	711,163	
Pickrel Fry.....		360,000	
Blue Gills Adult.....		3,025	
Perch Fry.....		55,500	
Mississippi River Rescued Fish			
Black Bass.....		175,770	12,122,323
Miscellaneous fish distributed.....	199,180		
Miscellaneous fish returned to river.....	11,747,373		
		11,946,553	
Neenah			
White Bass.....		1,232,190	2,044,885
Perch.....		812,695	
Crystal Lake			
Miscellaneous.....		15,200	15,200
Webers' Lake			
Black Bass.....		13	13

DISTRIBUTION BY HATCHERIES—1930—Continued

Hatchery	Quantity From Each Hatchery	Total Number From Each Hatchery:
Mud Lake		
Miscellaneous fish	2,867	2,867
Lakes at Madison		
Perch transferred	30,209	30,209
Delta Fur Farm Sloughs		
Miscellaneous Fish	553,403	553,403
Downsville Slough		
Miscellaneous fish	18,250	18,250
Heafford Junction		
Miscellaneous fish	54,250	54,250
Moon Lake		
Crappies transferred	3,000	3,000
Total		338,552,865
Fish from Federal Fisheries delivered by State Fish Cars 1930		
Miscellaneous fish		197,200

ROUGH FISHING OPERATIONS JANUARY, 1929, TO DECEMBER, 1929

Removal of Rough Fish From Northern Waters

		No. of Suckers
April to May	Franklin Lake	16,288
April to May	Big St. Germaine Lake	10,937
April to May	Pelican Lake	15,514
April to May	Forest Lake	147,000
April to May	Butternut Lake	9,513
April to May	Twin Lake	4,300
April to May	Rest Lake	8,236
April to May	Stone Lake	5,014
April to May	Found Lake	3,719
April to May	Lac Vieux Desert	2,700
April to May	Shawano Lake	1,076
Sept. 21 to Oct. 12	Flowage at Mercer	1,916
		226,213

226,213 suckers at 3 lbs. per fish—678,639 lbs.

Removal of Rough Fish From Winnebago District—1929

	Law- yers	Suckers	Gar- fish	Sheeps- head	Dog- fish	Carp	Total No. fish	Total Lbs. fish
Jan.-----	5,689	252	328	3	34		6,306	18,918
Feb.-----								
Mar.-----	2,006	248		250			2,504	7,122
June-----	3	559	15	5,185	1	10	5,773	17,319
July-----	9	1,021	21	7,428	20	49	8,548	25,644
August-----	19	1,104	40	8,749	53	108	10,073	30,219
Sept.-----	459	755	35	5,834	150	72	7,305	21,915
Oct.-----	1,487	889	34	3,480	81	17	5,988	17,964
Nov.-----	1,230	158	2	405	14	2	1,811	5,433
Dec.-----	5,898	734	734	15	44	4	7,429	22,287
Total-----							55,737	166,821

Grand total number of pounds of rough fish removed----- 845,460

ROUGH FISHING OPERATIONS JANUARY, 1930, TO
NOVEMBER, 1930

Removal of Rough Fish From Northern Waters

		No. of Carp	No. of Suckers	No. of Garfish
April and May-----	Pelican Lake-----		11,975	
	Big St. Germaine Lake-----		23,525	
	Butternut Lake-----		16,863	
	Stella and Found Lakes-----		11,795	
	Plum Lake-----		1,756	
	Metonga Lake-----		56,290	
	Madeline and Arbor Vitae Lakes-----		851	
	Forest Lake-----		24,495	
	Pine Lake-----		14,675	
	Rusk Lake-----		31,006	
	Lost Lake-----		22,450	
	Lake of the Falls-----		62,255	
	Tomahawk Lake-----		11,220	
	Franklin Lake-----		6,120	
	Lac Vieux Desert-----		6,500	
April 20—30-----	Rest Lake-----		14,456	
April 20—28-----	Weber's Pond-----		9	
May 30—June 24-----	Long Lake near New Auburn-----			785
October 4-----	Crystal Lake-----	2,000	3	
November 15-----	Brueckbauer's Pond-----	1,250		
		3,250	316,244	785

320,279 fish at 3 lb. per fish—960,837 lbs.

Removal of Rough Fish From Winnebago District—1930

	Law- yers	Suckers	Gar- fish	Sheeps- head	Dog- fish	Carp	Total No. of Fish	Total Lbs. of Fish
Jan.-----	5,525	616	334	11	53	7	6,546	19,638
Feb.-----	333	141	236	1	28	3	737	2,211
June-----	8	1,039	62	22,363	8	31	23,511	70,533
July-----	8	1,136	39	16,018	55	77	17,333	51,999
Aug.-----	10	1,534	58	30,466	51	109	33,228	99,684
Sept.-----	99	1,229	119	11,137	124	158	12,866	38,598
Oct.-----	1,198	1,380	20	4,030	69	112	6,809	20,427
Total-----							101,030	303,090

STATE ROUGH FISH CREW

Rough Fish Removal

	Carp	Lbs. Fish
West Bend Pond.....	766	2,300
Barton Pond.....	566	1,700
Delavan Lake.....	8,434	25,300
	9,766	29,300
Grand Total number of pounds of rough fish removed.....		1,293,227

Inter-Hatchery Shipments—1930

FISH

Bayfield hatchery		
Sent Brule hatchery.....	200,000	brook trout fingerlings
Sent Deerbrook hatchery.....	200,000	brook trout fingerlings
Sent Hayward hatchery.....	200,000	brook trout fingerlings
Madison hatchery		
Sent Wisconsin Rapids.....	25,000	rainbow trout fry
Osceola hatchery		
Sent Hayward hatchery.....	15,000	brook trout fingerlings
Sent Wild Rose Hatchery.....	15,000	brown trout fingerlings
Westfield hatchery		
Sent Madison hatchery.....	9,525	brook trout yearlings
Sent Wild Rose hatchery.....	10,000	brook trout yearlings
Wild Rose hatchery		
Sent Wisconsin Rapids.....	60,000	rainbow trout

EGGS

Madison		
Brown trout eggs.....	1,110,000	for hatching at Westfield, Sparta and Eau Claire
Rainbow trout eggs.....	882,000	in exchange for brook trout eggs for St. Croix Falls and Osceola
Wild Rose		
Brown trout eggs.....	211,200	for hatching at Osceola
Rainbow trout eggs.....	30,000	for hatching at Wisconsin Rapids
Rainbow trout eggs.....	782,500	in exchange for brook trout eggs for St. Croix Falls and Osceola
Osceola		
Brook trout eggs.....	3,458,025	for hatching at St. Croix Falls

SHIPMENTS TO REARING PONDS

1930

Town	Brook Trout	Brown Trout
Algoma	10,500	
Altoona	12,500	
Arcadia		20,000
Argyle		10,000
Barron	10,000	
Beloit		20,000
Berlin		12,000
Bloomington		14,000
Boscobel		12,000
Boyd	7,500	
Briggsville	4,500	
Chippewa Falls	15,000	
Crivitz		22,500
Cumberland	10,000	
Darien		10,000
Durand		18,000
Eagle River	5,000	
Eau Claire	36,000	
Elmwood		22,500
Elroy		4,000
Fall Creek	21,375	25,000
Fennimore		40,000
Fond du Lac		7,200
Gilmanton		22,500
Green Bay		2,000
Hatley	12,000	
Jump River	10,000	
Kilbourn	9,000	8,000
Ladysmith	30,000	
La Farge		20,000
Lancaster		40,000
Laona	28,500	
Lime Ridge		7,000
Luxemburg	7,500	
Manitowoc		14,000
Marathon	9,000	
Menomonie	22,500	
Mineral Point		9,600
Mondovi		22,500
Monroe		20,000
Montfort		25,000
Muscoda		12,000
Necedah		6,000
Neshkoro		12,500
New Holstein		7,500
New London	10,000	
Oshkosh		12,000
Pardeeville	5,250	
Plain		10,000
Platteville		50,000
Plymouth		12,000
Portage	14,625	
Redgranite		19,000
Richland Center		12,000
River Falls		25,000
Schofield	9,000	
Sparta	4,700	
Spring Valley		25,000
Stanley	7,500	
Stevens Point	8,500	
Sturgeon Bay	10,000	
Tomah	7,500	
Tomahawk	10,000	
Two Rivers		14,000
Valley		4,000
Waterloo		25,000
Waukesha		20,000
Waupun		8,400
Wausau	6,000	6,000
Wautoma	8,000	16,000
Wisconsin Veteran's Home, Waupaca		16,000
Wittenberg	7,500	
Woodville		25,000

Fish allotted entirely upon adequacy of ponds.