

**MARQUETTE
STATE FISH HATCHERY**

1922-1972

PREPARED BY:

Russell Robertson

Marquette Hatchery Superintendent

1942-1973

HATCHERY BUILDING AND PONDS

In 1922, due to pressure by Upper Peninsula sportsmen over the past several years, the State Department of Conservation decided to build three trout hatcheries. Marquette, Sidnaw and Watersmeet were selected for sites. The one in Marquette County is located on Cherry Creek Road in Chocolay Township.

Marquette County Board of Supervisors purchased thirty-two (32) acres of land in this area, and deeded it to the Conservation Department for this hatchery. Historical records show that prior to 1890, a lumber mill was operating at this site.

In June, 1922, construction of the hatchery building was begun. It was to be 100 feet long by 36 feet wide, with two stories. A bid of \$8,100.00 was submitted by a local contractor. The hatchery was to be ready for operation by December, 1922. Due to delay in getting materials, it was not finished until the spring of 1923.

The hatchery was built 150 feet from a natural waterfall, where a concrete dam was built and a waterwheel installed. This served as a powerhouse for the hatchery. The head of water was sufficient to generate about 25 horsepower; enough to furnish the hatchery with electric lights and to operate the pumps to deliver necessary water. A gasoline motor was installed to operate the pumps in case of emergency.

Temporary living quarters were made upstairs for the overseer until a residence could be built, which was completed in 1923.

During the years 1924-1926, a dam was built above the hatchery, and 1400 feet of 16 inch wooden pump log was laid to supply water to the hatchery. Also, a one car garage and two small raceways were constructed. The hatchery had a capacity of 90 troughs (9 feet long, 12 inches wide, 6 inches deep) for hatching and rearing fish.

During 1926-1928, a building was constructed for the storage of ice with a walk-in ice box for fish food, a coal hot water furnace, and 12 ponds 75 feet by 8 feet, 2 feet deep.

No further building or pond construction was undertaken in the years 1928-1930. During 1930-31, three ponds 300 feet by 25 feet, 3 feet deep, were constructed above the 12 small ponds.

In 1933, the original pump log was replaced by a new pump log and extended up the river another 1500 feet. A dam was built at the head of this pump log so the river could be raised or lowered to regulate water pressure to the hatchery. Help for this project was provided by the Civilian Conservation Corps.

Apparently this line did not work satisfactorily, as silt and sand were creating problems in the hatchery. In 1938 it was removed and an eight inch transit pipe was laid, under the supervision of a representative from the Johns Manville Company. The amount of silt and sand was

reduced considerably. No further work has been done with this pipe line.

From 1932-1937, the hatchery was in operation only seven months of the year — May through December. Care of fish and maintenance of building and grounds was carried on by a three-man crew.

The years 1937-1940 saw many improvements at the hatchery. A crew was provided by the Works Progress Administration to accomplish this. Fifteen new ponds, 90 feet by 8 feet, 2 feet deep, were constructed in front of the hatchery, and a circular pond for public display of various fish was constructed between the upper and lower ponds. An addition on the south side of the building provided room for a garage, meat room, and a storage area. A cold air circulating unit was installed in the walk-in cooler. On the north side, an office and public rest rooms were built. A bedroom, small storage area, and extra dormers were added upstairs. A porch, or loading platform, of cement and flagstone was laid between the new office and meat room at the front of the building. A cement block garage replaced the old wooden one, and an underground cement coal bunker was put in next to the furnace room. The present hot water furnace was replaced by a coal hot air furnace.

The powerhouse in front of the hatchery was taken down, and a four foot culvert and bridge were placed over the river, with a flagstone wall on both sides. The hatchery grounds were landscaped and a flagstone wall was built behind the residence and other buildings. 3,000

pine seedlings were planted around the area. The original small ponds were covered up.

No further construction was done in 1940-1941 in the area.

In 1942-1943, four new ponds, 100 feet by 12 feet, 3 feet deep, were constructed of sod and dirt, with center cement bulkheads, in front of the building. Two cement tanks were installed inside the building. The office was moved downstairs and the two rooms upstairs were made into a dormitory with shower and toilet. Also, a hot water heater was installed for use in toilets and meat room. Most of this work was done with help from the Marquette prison inmates.

No major construction was undertaken during the years 1944-1951.

In 1952-1959, another renovation project was underway, with prison inmate help. Twelve small cross ponds were replaced by three new ponds, 160 feet by 20 feet, 3 feet deep. These contained center bulkheads, walls and walks of concrete.

While excavating dirt from this area, a pine log, 29 feet long and 30 inches in diameter, was uncovered. It had been there for more than fifty years, and was still in good condition.

After these three ponds were completed, the fifteen ponds in front of the hatchery were widened from 7 feet to 12 feet, and replaced with concrete walls and walks. Also, sod walls on the last four ponds built

were replaced by concrete. Along with the work on the ponds, a new five-stall cement block garage was built for planting trucks and storage area, and a two-car garage for the residence.

During the winter months, the prison inmates were used to construct ten concrete tanks inside the hatchery for use in holding small fish before transferring them to outside ponds. A walk-in refrigeration unit was installed in rear garage of the hatchery, so fish food could be kept frozen at all times. A new automatic oil furnace replaced the coal furnace. The front porch of the hatchery building was enclosed to become the new office. An extra partition was erected inside, at the front, to make a room for use by the Institute of Fisheries Research personnel who moved in 1955. A large storage shed and garage was built on top of the hill for use by the Research Division. At this time, a six foot industrial fence was erected around the entire pond system to keep out violators.

In 1963, ten well points, 23 feet deep and 20 feet apart, were driven between the fence and building, hoping to provide well water for the hatchery troughs and tanks. These points were connected to a four inch pipe running into the hatchery and connected with the water line supplying the hatchery troughs. Zinc from the galvanized pipe soon developed in the water, which was not suitable for the eggs, as mortality increased; this system was discontinued.

During the next ten years no major construction was undertaken, as the lake trout program had top priority.

FISH PRODUCTION

Prior to 1920, there was only one State fish hatchery in the upper peninsula. It was located at Sault Ste. Marie, Michigan. This hatchery, and others in the lower peninsula, produced trout for planting in the U.P. At times the Federal hatchery, located at Duluth, Minnesota, shipped fish to the counties in the west end of the U.P. for planting.

Fish were transported to various counties of the U.P. by means of ten gallon milk cans containing 3,000-5,000 fry, or advanced fry. A number of these cans were placed on baggage cars on the various railroad lines and shipped to different counties. There, sportsmen club members would meet the train and take the fish to be planted to streams in the area. The Department had its own fish car which was in operation from 1900-1925. It traveled more than 20,000 miles a year, on different railroad lines, to practically every area in the state. This car had a capacity of more than 100 aerated cans of fish. It had living quarters for a four-man crew, and was on the road five months of the year. In later years, large trucks equipped with tanks and aeration were used by all hatcheries in this operation.

Due to lack of hatcheries in the U.P., many of these fish had to be planted early in the spring when streams were high and roads were in poor condition. Consequently many fish died from the long trip.

During 1920-1922, four new hatcheries were built: Thompson, Marquette, Sidnaw and Watersmeet. The hatchery at the Soo operated till 1929.

The Marquette hatchery received its first shipment of eggs in February of 1923, from commercial hatcheries in the east. It consisted of three million eyed brook trout eggs. More than two million of this total were planted in april, May and June. Ten gallon cans were loaded on Model T Trucks and transported to rivers in various counties in the area.

During the next several years, three million eyed brook trout eggs were handled, hatched, and planted by the Marquette hatchery. In 1926, a shipment of 10,000 grayling fish eggs were received from Montana. They were planted in silver Lead Lake in the Sands area and Trout Lake in the Gwinn area. There were no survivors from this plant.

In 1931, the hatchery was placed under the supervision of the Thompson State Fish Hatchery near Manistique, Michigan, and was classified as a rearing station, with a foreman in charge. The hatching of trout eggs was discontinued after 1931, and the hatchery was closed during the winter months from 1932-1937. During this four year period, 500,000 small fingerlings were transported in from the Thompson hatchery in May and placed in the ponds. These were held until fall, then planted in various rivers as sublegal fish, 4 to 6 inches long.

In 1937, the hatchery again became a year-round operation as a number of fish were to be held over the winter, to check on growth. In 1948, this station was reclassified from a rearing station to a hatchery. From 1937-1955, 500,000 small brook trout were transferred to this hatchery for the summer months. Some were planted in the fall, others were held over winter and planted in the spring. A number of rainbow and brown trout were also held at this station for rearing. Due to the cold temperature of Cherry Creek, growth of these trout was not good so this program was discontinued. The brown and rainbow trout were raised in the Thompson hatchery and planted in this area with help of the Marquette hatchery personnel. After 1955, the number of brook trout was reduced, as legal fish were now being planted.

In 1938, 60,000 small lake trout were shipped into Marquette from Thompson and held in ponds over the summer. This was the first lake trout for Marquette. They were planted out in Lake Superior in the fall. In 1939, 240,000 green lake trout eggs were taken by commercial fishermen, out of Lake Superior ports. They were placed in the hatchery for hatching, and later planted back in the lake. In previous years these eggs were shipped to the Federal hatchery at Duluth, Minnesota, for hatching and planting.

From 1939-1957, more than nine million lake trout eggs were collected from commercial fishermen along Lake Superior ports in the fall of the year. After 1957 no more eggs were taken due to a shortage of

lake trout being caught because of sea lamprey and commercial fishermen. Eggs taken from the 1953-54-55 year class lake trout were earmarked to be held at the hatchery for future brood stock.

In 1954, eggs were taken from lake trout that were raised in hatchery ponds over the last six years. It was the first time in Fish Division history that eggs had been taken from hatchery reared lake trout. The event was the turning point for the Michigan lake trout program. With the success of this program, eggs were taken from hatchery raised lake trout yearly. By 1964 more than ten million eggs were taken each year. They were shipped to the Federal fish hatchery in lower Michigan and to other states. They were hatched and raised to fingerlings and planted in the Great Lakes. Thanks to the Marquette hatchery, the restoration of lake trout was well underway in the Great Lakes by the late 1970's.

In the 1954 spawning season, eggs were taken from two female lake trout and fertilized with sperm from a brook trout, which produced a hybrid called "splake". It was the first time this cross was done in Michigan. In the next several years, more than five million splake eggs were taken. They were planted in inland lakes and the Great Lakes. This was a new addition to our trout family, which proved to be a welcome one for the sportsmen.

Trout diets were many, and varied over the years. When first hatched, the fry have a food sac which keeps them alive for 20-25 days.

Once that sac is absorbed, and is now a stomach, feeding becomes necessary. Fresh beef hearts were ground up very fine and given the fry several times a day. As they grew and were feeding well, larger particles of beef were fed them four times a day.

Prior to 1938, diets were composed of a mixture of beef hearts, beef, sheep liver, sheep plucks, and pork spleen, which were secured from various meat packing companies and shipped to the hatchery as needed. In the early days these products were kept fresh by means of ice, later a walk-in refrigeration unit was used.

From 1938-1946, various types of diets were fed the fish, such as meat products mixed with dry cereals, namely fish meal, cotton seed meal, dry skim milk, oatmeal, and Brewer's yeast. During the war years, when most meat products were not available, horse meat, canned carp, Balto and ocean fish products were used.

In the early 1950's a pellet was made with various dry meals fortified with vitamins, and by 1954 all Michigan hatcheries were using these to feed the fish. They were produced in different types and sizes, suitable for all sizes of trout.

Some difficulty was encountered in feeding this pellet to lake trout. A moist pellet was developed on the west coast that was suitable. It was necessary to hold these pellets under refrigeration to keep them fresh. Pellets are now a regular diet for trout.

This is the fifty year history of a "Model T" hatchery that was to be phased out in 1965, along with four other State fish hatcheries.

The following article was taken from *Michigan Fisheries Centennial Report, 1873-1973*, regarding the Marquette hatchery:

"The lake trout, about 50 years ago, supported a commercial fishery of 10-15 million pounds per year in the three upper Great Lakes. Due to a combination of sea lamprey predation and commercial fishing, the species was eliminated in Lake Huron and Lake Michigan, and nearly so in Lake Superior. Increased hatchery production and planting, coupled with intensive lamprey control, together saved the species in Lake superior, and large populations were re-established in Lake Michigan. Large-scale plantings were first made in Lake Superior in 1965. Nearly all lake trout taken since (i.e. to 1973), either commercially or by sport fishing, have been survivors of fin-clipped hatchery plants. Credit for restoration of lake trout belongs to the lamprey-control effort, to state and federal fish culturists, and to the foresight at the state hatchery at Marquette, where a large brood stock of lake trout was developed while the species was still generally available on spawning reefs in Lake superior."

MARQUETTE HATCHERY PERSONNEL

CHARLES MONTAGUE, Overseer	1922-1929
JAY MARKS, Overseer	1929-1931
LOUIS SAUHEITL, Foreman	1931-1943
RUSSELL ROBERTSON, Foreman	1943-1944
FRED OWENS, Foreman	1944-1945
RUSSELL ROBERTSON, Foreman	1945-1948
RUSSELL ROBERTSON, Superintendent	1948-1973

Credit Acknowledgments to the following:

Marquette Historical Society

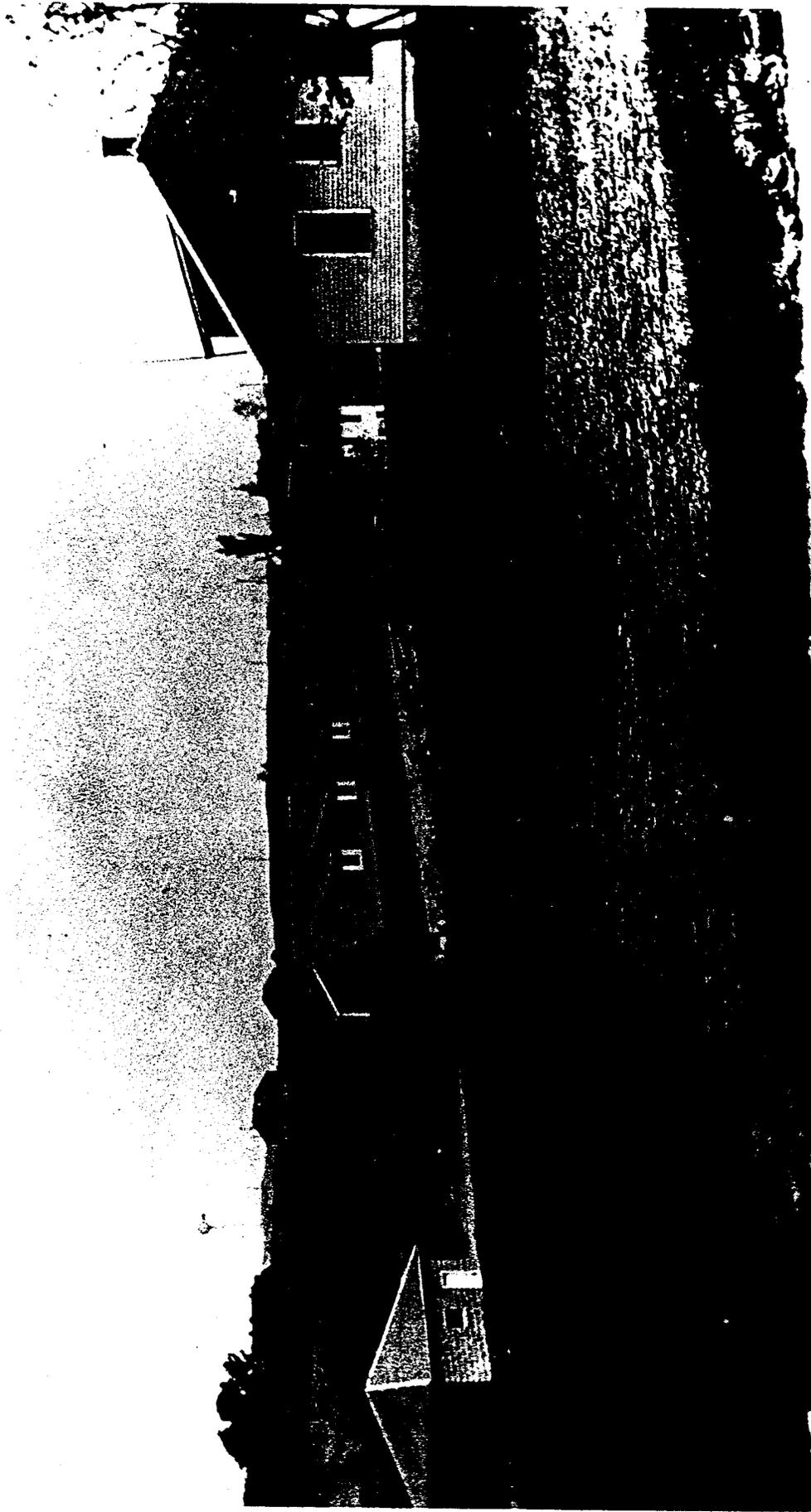
Marquette Mining Journal

Department of Conservation Biennial Reports

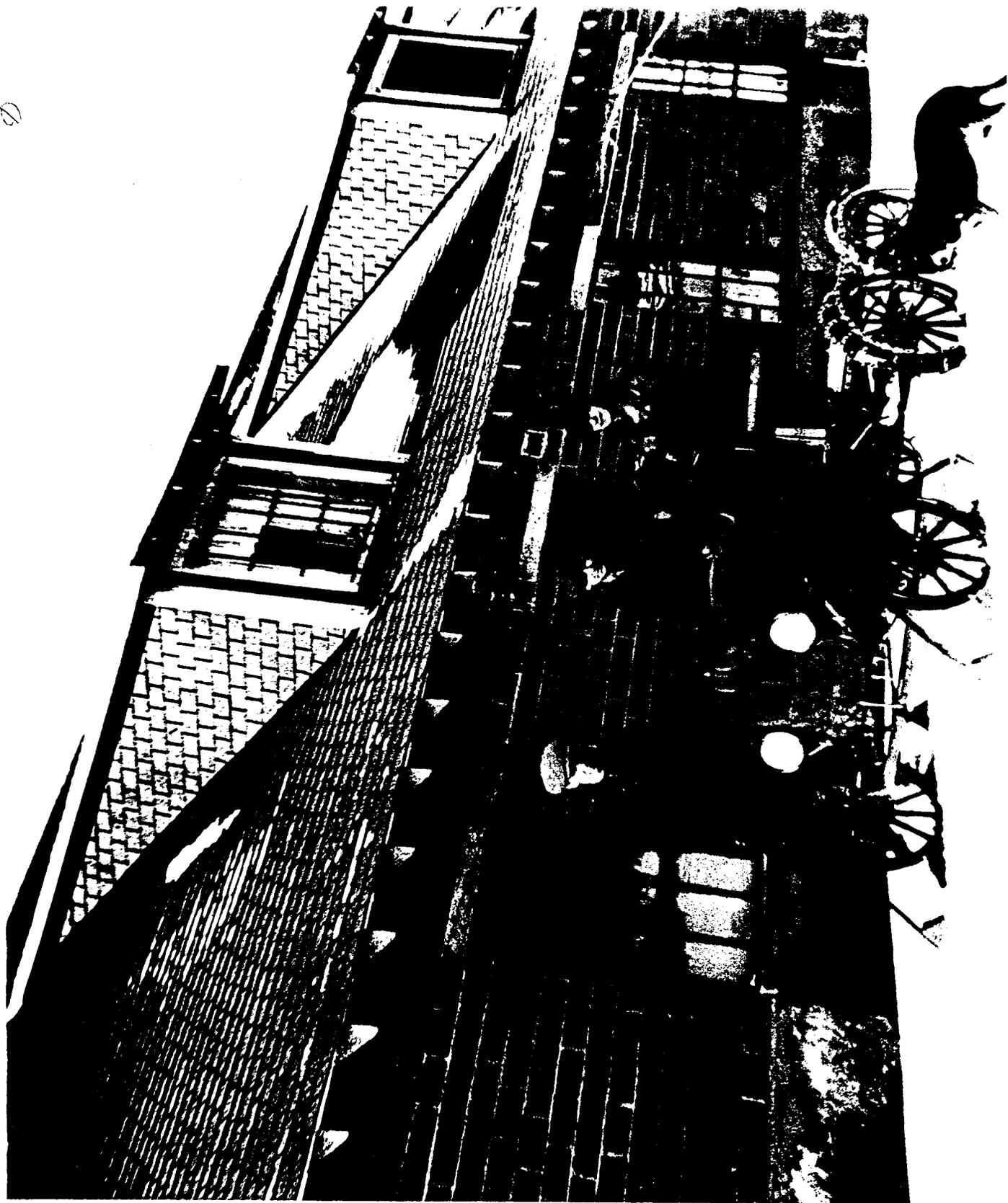
Michigan Fisheries Centennial Report. 1873-1973

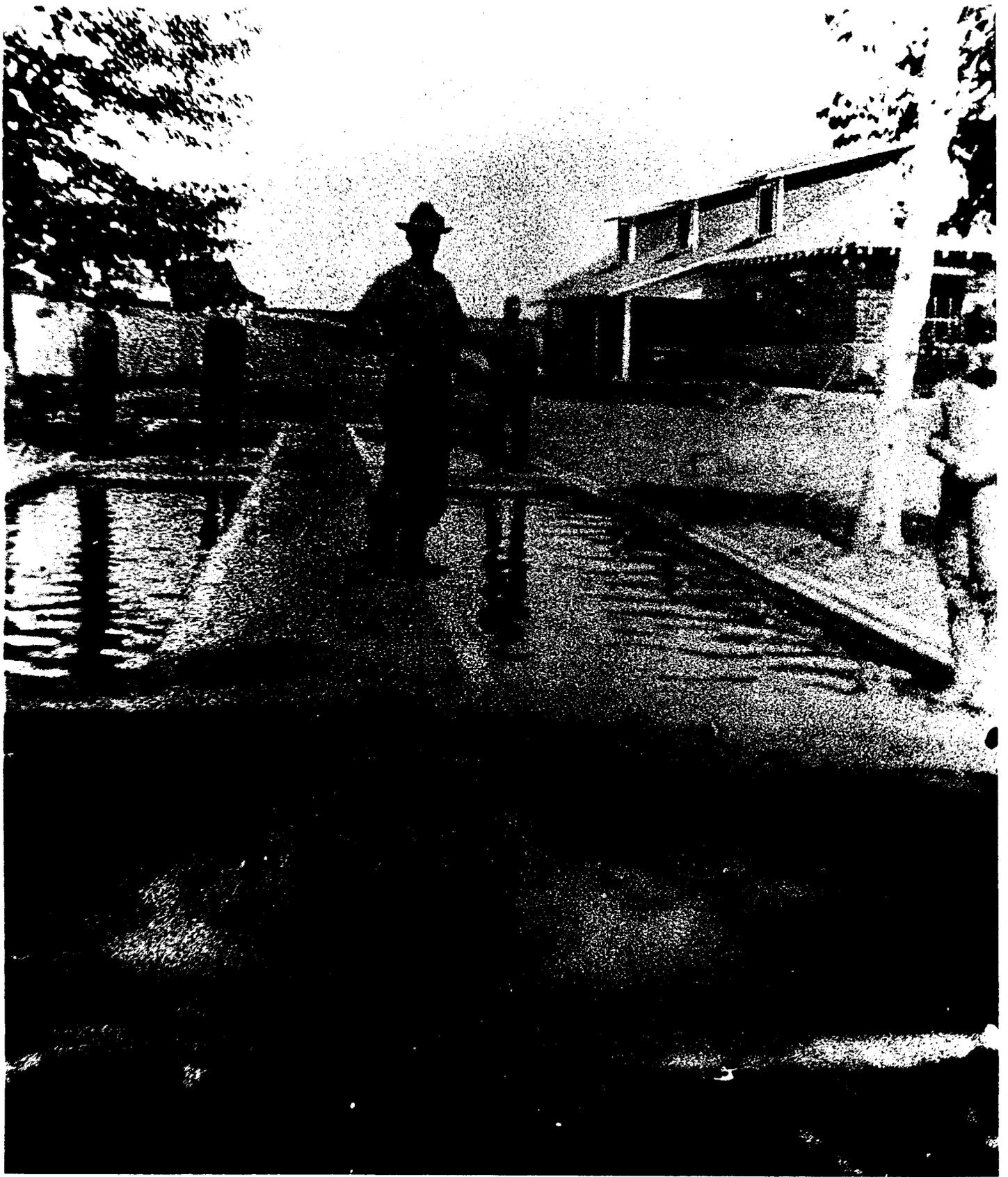
Hatchery Files

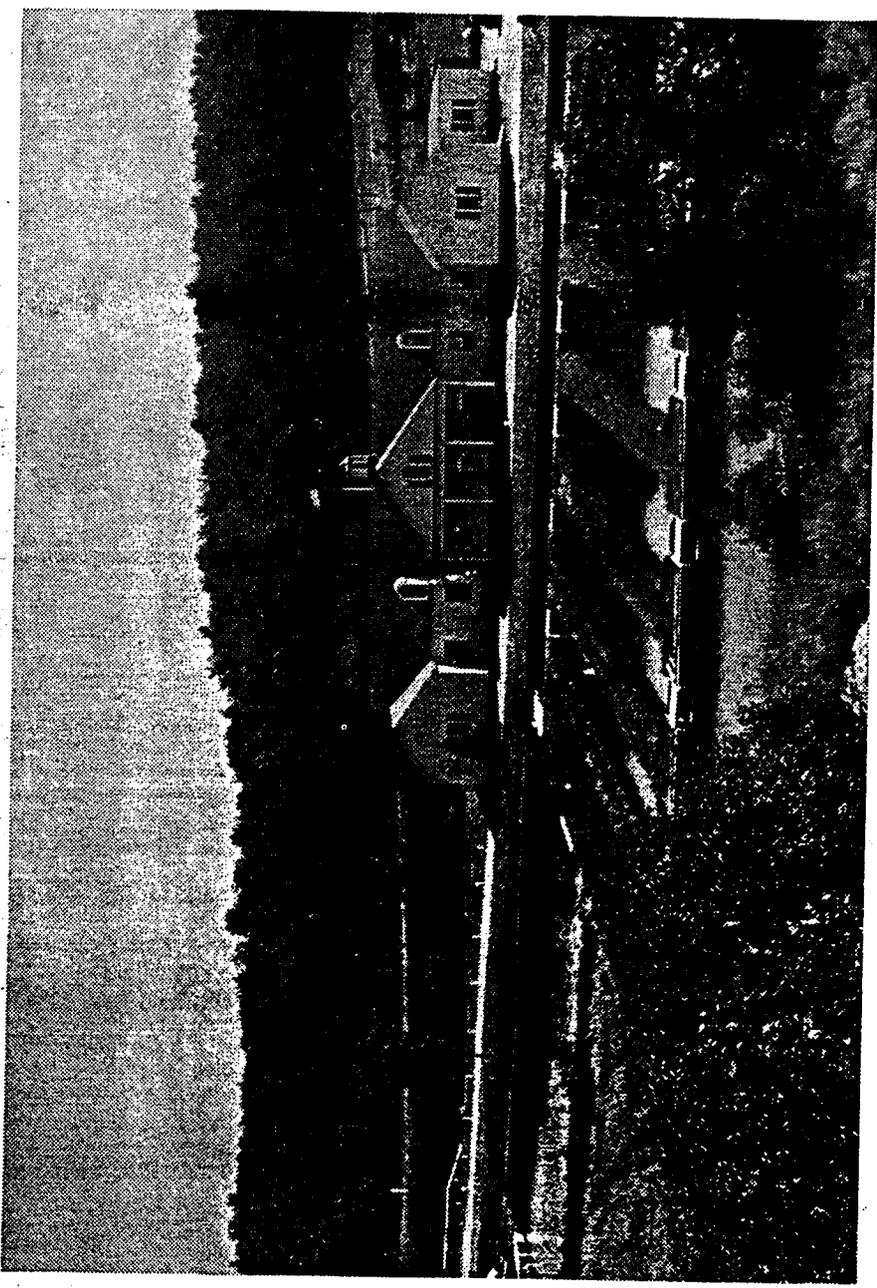
1924



1921 Snowmobile of the







Marquette hatchery and ponds.

1940

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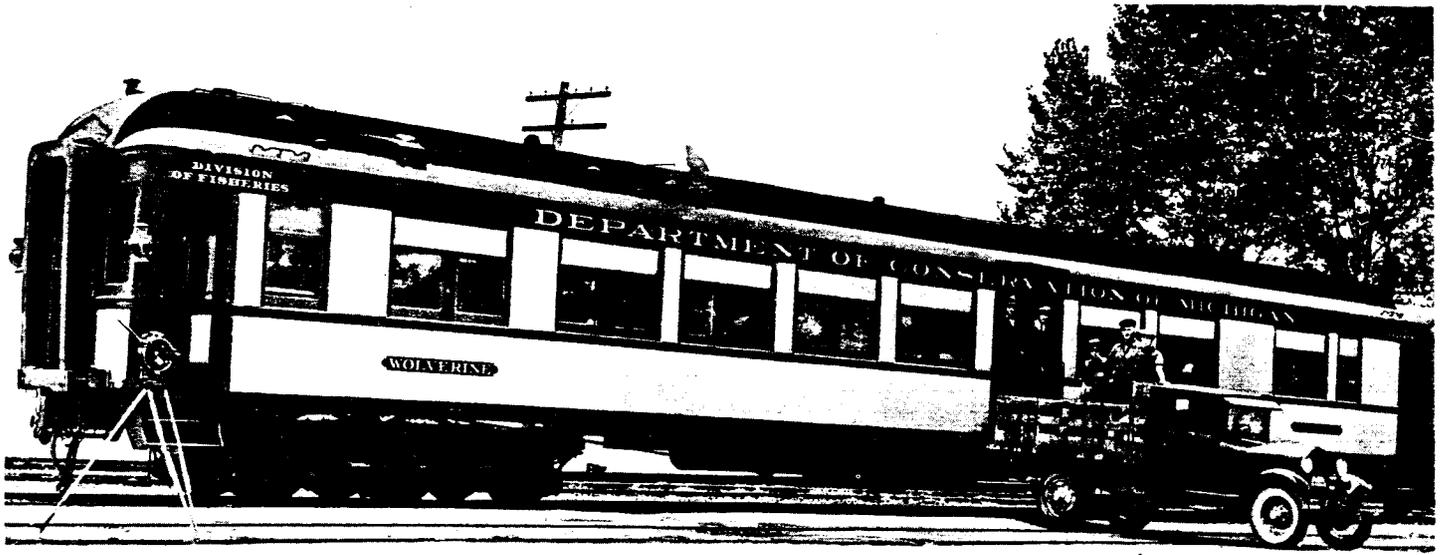
1992





Fish Hatchery - Marquette, Mich. 1972

TRANSPORTATION OF HATCHERY FISH



(above)

WOLVERINE FISH CAR -

Used to transport fish (1885-1930). Total cost of this car in 1915 was about \$4,000.



(left)

TRUCK WITH FISH CANS

The method used to transport fish - around 1925-1940.

(below)

MODERN HATCHERY TRUCK

Capacity of 6,000 lbs. of fish, or 100,000 5" - 6" fingerlings.

