

Lake Monona (Sec. 62.38).....	165,465
Lake Waubesa (Sec. 62.38).....	96,985
Lake Kegonsa (Sec. 62.38).....	210,872
Lake Beaver Dam (Sec. 62.38).....	239,307
Other waters (Sec. 62.38).....	99,392
Total pounds marketed.....	1,381,168
Revenue collected by the state.....	\$11,128.07
Number of contracts entered into.....	36

SURVEY OF TROUT STREAMS.

For several years I have recommended a thorough survey or examination of trout streams in the state, so as to secure positive information as to whether or not the proper and necessary conditions exist to make the planting of trout successful. Many waters that at one time were excellent trout streams no longer have the proper natural conditions for the development and growth of this species of fish. The timber and brush have been cut from the banks, and the stream now meanders through farm and pasture lands, where, during the summer months, hogs and cattle wallow in the waters. Rains, owing to the timber and brush being cut, cause a heavy wash and flood. There is no question but that many thousands of trout from the state hatcheries are planted in streams in which the fish cannot exist. What may have been a good trout stream a decade ago is to-day nothing but a dirty, roily creek.

This year we started the work of a survey covering Wisconsin trout streams. A complete investigation is made as to the present conditions, i. e., temperature of water, depth, width and length of the stream, food conditions, results of former plantings, or any information that may have a bearing on the subject.

Many persons are of the opinion that water is all a fish needs. We may as well say that air is all a human being needs. A stream may be as pure and cool as spring water and as clear as crystal, if the necessary water vegetation which produces crustacea and caddis is absent, the planting of trout is useless. Crustacea is a form of animal life belonging to the fresh water shrimp family. This food must be abundant in the waters or the young trout cannot survive as it is the only food on which a baby trout lives during the first few months of existence.

The work was started in the southern part of the state and thus far ten counties have been covered. The survey is in charge of Mr. B. O. Webster, foreman of the Delafield State Hatchery, who with one assistant traversed the country in an automobile. By placing additional men on the work we expect to complete the undertaking during 1917.

After the work has been completed and statistics tabulated, the department will be able to arrange the future distribution of trout fry so that the fish will be planted only in streams where we know they will find proper conditions for growth and reproduction. Hundreds of thousands of fry have been planted in streams in which a trout cannot survive. Many trout streams are now polluted with refuse from creameries, cheese and canning factories. This survey also covers the situation where persons

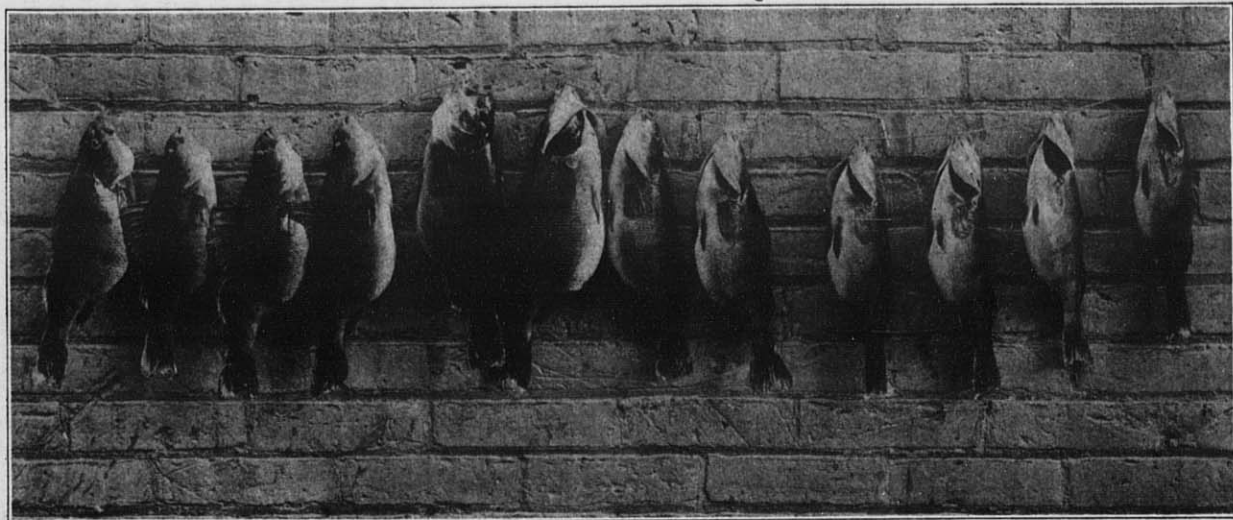
secure trout from the state, and then post the streams "No Fishing Allowed." At the expense of the state and the taxpayer they maintain a good trout fishing stream. In the future such streams will not be supplied unless the public may enjoy the fishing.

During the past season unusual and remarkably large catches of pike and bass have been made with hook and line in the waters of Lake Winnebago and its tributaries. A peculiar condition was the catch of white bass in those waters, being all of practically uniform size and smaller fish, few if any of the large white bass as of former years being caught. Summer resorts reported splendid fishing throughout the north territory. This is also true all over the state.

Since the advent of the automobile trout fishing particularly has suffered. In my opinion the auto is the great cause in the rapid depletion of our fish and game. With an auto, hunters and fishermen can cover as much territory in one day as formerly took a week. The sportsmen can run from one hunting ground or trout stream to another, covering several in a day, even though they be miles from one another. The streams are fished out as fast as the state stocks them. We have a minimum size law, but, nowadays trout fishermen seem, as a rule, to be fishing for numbers instead of the size of fish. Unless a reduction is made in the daily bag limit, I am in fear that we will be unable to keep our streams properly stocked.

In our general recommendations we will cover the change in the law reducing the bag limit on trout and lengthening the closed season on black bass, but I wish to make a few particular remarks regarding these two changes. We intend to reduce the bag limit on trout from 45 to 25. Any true trout fisherman will admit that in this day and age, a catch of 25 trout in one day should satisfy any fisherman.

As to black bass. For many years I have advocated a law permitting no bass to be caught until July first. Of all Wisconsin fishes, the black bass is the only game fish of importance that builds a nest and protects the eggs and young fish. From the time the eggs are deposited on the nest until the young are about 10 days old, the pair of old bass continually remain in the immediate vicinity, driving away any enemy that may seek to destroy the eggs or young. The present law opens the season for the catching of bass at the very time the bass should be protected, i. e., at the time the fish are on the nests. You may take a general average for 10, 20 or even 40 years, and you will find that the bass are on their nests during the month of June. Not one year out of ten will show that black bass have left the spawning grounds by June first, or years when they are still on the grounds in early July. Any real fisherman will tell you that if you will keep out of the shallow bass grounds in June that no bass will be caught. Some fishermen make the hue and cry that if fishing for all varieties of fish except bass is opened on May 29, that they cannot help catching black bass. Let the fishermen keep out of the bays and shallows during June and no bass will be caught. Go out on the lakes on May 29 and see where the men are fishing—every boat is up in some bay among the lily pads or on some gravel bar where the small-mouthed bass spawn—and all the men will be casting for bass. The fishermen destroy millions of bass every year. If the reader is one of those who fishes for black



TWELVE YELLOW PERCH. TOTAL WEIGHT 16 POUNDS. TAKEN FROM LAKE KEGONSA,
DANE COUNTY, WISCONSIN



WALL-EYED PIKE FROM TOMAHAWK LAKE, ONEIDA COUNTY, WISCONSIN

bass during June he will admit, if he is truthful, that practically every female he caught was full of spawn. Give the black bass a chance to spawn and reproduce, and Wisconsin will always be one of the best black bass fishing states in the Union. The natural reproduction of young bass in the spring of 1916 was much better than the average year. This is due to the fact that the bass spawned late, the early fishermen quit after four or five days fishing on the spawning beds. Later the bass came in and many of the mature fish that would have been caught earlier in the season were left undisturbed, and the result was a good crop of bass fry. This condition means thousands of dollars to future sportsmen.

On the following pages will be found papers by Mr. John H. Lowe, of the University of Wisconsin, and Mr. R. L. Ripple, foreman of the Bayfield State Hatchery, regarding the use of gasoline and benzine in the treatment of trout attacked by a parasitic copepod commonly known as "fish lice" and causing an infection known as "gill trouble." As yet the work is in the early experimental stage, but I feel much encouraged as to the treatment developing into an important factor in the propagation of brook trout. Fish, like the human family, are subject to disease. The most common in the trout family is the above mentioned gill trouble. If unchecked the death rate among the confined fish is enormous. Scientists and fish culturists have spent years of study to find some method of checking the disease in the early stages. The pioneers in trout culture discovered that bathing the fish in a strong salt brine would, to some extent, check the ravages of gill trouble and to the present writing this is still considered the most beneficial remedy.

At the meeting held in Sturgeon Bay, Capt. Albert Kalmbach, who was born on the shores of Lake Michigan and who has been a commercial fisherman for some 45 years, read a paper to the fishermen present. The sentiment and ideas expressed by Capt. Kalmbach are so absolutely true and parallel with the conservation ideas of this commission that I take a great pleasure in printing his paper in this report.