

DEVELOPMENT OF FARM AND RANCH POND FISHING IN MONTANA

By

Arthur N. Whitney
Fisheries Division Chief
Montana Fish and Game Department

Presented at 17th Annual Meeting of U. S. Trout Farmers'
Association, Twin Falls, Idaho. October 11, 1968

With farm ponds, as with most subjects, it is best to begin by defining what we are talking about. In other words, I should answer the question, "What is a farm or ranch pond in Montana?" We have a lot of different types of waters in Montana. We have most of the best natural trout streams left in the United States; we have the largest natural freshwater lake west of the Mississippi (Flathead Lake); we have one of the oldest Corps of Engineers reservoirs on the Missouri (Fort Peck Reservoir); we have high mountain lakes and shallow prairie potholes; we have reservoirs created by stockwater dams, state water board dams and power dams; and we have many moderate-to-small-sized natural streams and lakes.

Certainly it is easy to recognize that the 5-acre stockwater dam behind rancher Brown's house is a farm pond and it is equally as easy to see that the 200,000-acre Fort Peck Reservoir isn't. But there is a gray area in between. How about a little prairie pothole or a small natural bog lake on private land which is deep enough to support fish? How about a screened portion of a private irrigation ditch, or a portion of a small natural stream, completely on private

land? It is sometimes hard to know where to draw the line.

If we are concerned solely with the legal definition, then we can go to the law and accept what it says. Since we must do this to determine whether or not a private pond can be licensed, and I assume this group is considerably more interested in Montana's private ponds (which represent potential sales of fish to commercial hatcheries) than they are in public ponds which the state stocks, we'll use that legal definition. However, I do want you to remember that determining what is or isn't a farm pond for public fishing purposes is a considerably more difficult decision, and this is one of the reasons why my figures, which I will get to later on, for the number of farm ponds the Fish and Game Department manages is only an estimate.

Section 26-306, Revised Codes of Montana, 1947, allows any person who owns or lawfully controls an artificial lake or pond, to apply to our Department for a fish pond license. Such a license will allow the holder to procure fish from any legal source, stock them in his pond, and take them from the pond in any manner. This includes the pond owner and members of his immediate family, but not others. Our department issues this license without charge, but does designate on the license the species of fish that may be planted. If a person wants to sell fish from his pond, his license is still free but he must furnish a \$500.00 bond

conditioned to the effect that he will not sell fish or eggs taken from natural waters and will report his sales to the department each year.

The law goes on to define an artificial lake or pond, "The term 'artificial lake or pond' as herein used shall not be construed to include any natural pond or body of water created by natural means, nor any portion of the streambed or of the lakebed thereof, but shall be limited only to such bodies of water created by artificial means or diversion of water and shall not exceed five hundred (500) acres of surface area."

This definition is primarily to prevent public waters from becoming private waters - something which has to be done if we are to preserve the basic American concept of free public hunting and fishing. But in the opinion of those of us who have to administer and enforce it, it does present some difficulties.

Take the following example. Let's suppose I have a stream on my place which rises from springs. It is too small to support game fish and yet I would like to have some fishing there for myself and my family. If I construct a pond somewhere off to the side of this stream and divert the stream over into it, then back again through an artificial channel, my pond is licenseable. But, if I put my dam across the creek channel (which might be my only possibility if the stream channel is very much below the level of my surrounding land) then the resulting pond is not licenseable because it contains a part of the original, natural streambed.

This hardly seems fair to you does it? It doesn't seem really fair to us either, and we have recommended that the law be changed to exclude from private licensing only those ponds which contain parts of a natural stream or lake bed which was capable of supporting a natural game fish population before construction. But this change has not been made and we must live with what we have.

Montana farm ponds can be categorized in two types. One of these is dependent on seasonal runoff and the other has water flowing through it all year long. Because winterkill is a problem in the northern plains and Rockies, we have certain depth and size requirements that a pond open to public fishing must meet before we will manage it.

On ponds that have a sizeable flow through them the year around, we require that they be at least one-half surface acre in size and at least 5 feet deep over one-fifth of their area. We would consider sizeable flow to mean the equivalent of a complete water exchange every five days. Naturally this water flow would have to be well oxygenated. For ponds that depend on seasonal runoff we require that they have at least 5 acres of surface area and a minimum depth of at least 15 feet over one-fifth of the pond. We do not make any such size requirements for private ponds - we will advise the pond owner on what depth we think is required to avoid winterkill problems, but the size is strictly up to him. The reason we

have size requirements, of course, is to avoid getting into public management on something that is too small for general public use. The private owner has no such restriction - he can regulate the fishing to the size of his pond, something we can't do on a public pond.

The two types of ponds (ones with flowing water through them all year and the ones that depend on runoff) are managed somewhat differently now; 15 years ago they were managed in a totally different manner. By this I mean the ones that have a good year around flow through them have generally always been managed for trout. But 15 years ago only warm-water species were used in the ponds that depended on seasonal runoff.

When I first worked for the Montana Fish and Game Department in Miles City in 1951, stockwater reservoirs were being built all over eastern Montana, usually under the ACP program and most everyone was happily stocking bass and bluegill at Swingle and Smith's Alabama pond stocking rates. This, however, frequently ended abruptly when the pond was supposed to have been ready to provide some fishing. Many times the result was the bluegills had overpopulated so they were too small to be desirable, or the pond had winterkilled and contained no fish. Thus, my first job in Montana was to check for suitable ponds and to find the species, or species combination that would provide the best production in eastern

Montana stockwater reservoirs. After two years of fiddling around with various bass-bluegill ratios and times of stocking, checking out a number of ponds that had had fathead minnows and either walleye or northern stocked several years earlier - and finding that even some of the best ponds winterkilled frequently, I sat down and analyzed the cost of what I was doing compared to the economics of the old Miles City Federal warm-water hatchery, which has since been replaced. The result of this analysis was that my second year's completion report recommended the termination of what I was doing, and I left Montana for a year. I suppose such a recommendation wasn't too smart for my own immediate personal future, but I still think it was honest and I do have the distinction of writing one of the few final reports for a research project that didn't say "further research is necessary."

My reasoning went something like this. First of all winterkill is a common thing in eastern Montana ponds. But it does not commonly occur over the entire area in any one winter. And though anyone can look at a five-foot-deep pond and say it isn't going to make it this year, nobody can look at one 15 feet deep and say it is or isn't going to come through O.K. All you can say is that sometime in the next two, three or four years most of the 15-foot-deep ones are going to tip over, at least partially. Thus, determination of a proper planting ratio of the best species to maintain fishing for ten years or so is a pretty academic

question. Anything that will survive to provide a couple of years of good fishing is as good as anything else. I suggested trout in some of the better ponds because their good growth rate in ponds will provide fishing faster than most warm-water species. But at that time Montana was not about to start hauling many trout east. Distribution was more difficult on long hauls than it is today and maintenance planting of small fish in streams was still in vogue and took much of our hatcheries' production. Then I considered the economics of the old warm-water hatchery at Miles City - which, believe me, was nothing like a trout hatchery. Two large ponds (about 10 to 15 acres) were used for production. Several smaller ones were used to overwinter brood stock. The big ponds were fertilized with manure in the winter; the ice melted; the fish were then put in, and if temperatures were favorable, they spawned successfully and the young fish grew throughout the summer. During this time the crew worked on the buildings and grounds, repaired dikes and helped me on a few of the ponds I was surveying. In the fall the big hatchery ponds were drained slowly, the crew feverishly piled the aquatic vegetation in little hay-cocks as the water level receded so that the small fish would not become entangled in it and be left high and dry, and the fish were collected. The small ones were distributed to persons who had applied for fish throughout eastern Montana, the adults were put into the smaller ponds for the winter and the crew went back to

working on the buildings and grounds. No ponds or raceways were cleaned, painted or scrubbed, no fish were fed. The only time they saw their fish was when they moved them from one pond to the other in the spring and fall.

So I asked myself, "What can I accomplish by surveying all ponds for which fish are requested?" Even if I find half of them unsuitable, all this will do is cut the fish requirement in half for the year. And all that would be saved would be part of the fall distribution cost, hardly enough to pay for my mileage, much less my salary and per diem. As long as we had only bass and bluegill to work with, it was cheaper to fill all requests and see if the fish survived. And that's when I wrote the report that recommended my job be discontinued - and my boss took my recommendation.

There have been a lot of changes between then and now. We have distribution units that can haul trout all the way across Montana with less loss than we used to have on a 100-mile trip. We recognize that maintenance plants of small trout in streams is a waste of effort so no longer make them. In short, we have the trout available and the means to get them to suitable farm ponds which are open to public fishing. We again have biologists in eastern Montana who survey ponds and recommend the better ones for trout, and we plant from 250,000 to 300,000 fingerlings (mostly rainbow) in 100 to 150 of these ponds each year. Trout fishing,

for which residents of eastern Montana had to travel several hundred miles 15 years ago, is now available relatively close by.

But this is not what you folks came to hear - how many trout we plant in public farm ponds. Other than the fact that our operations have generated a great interest in trout fishing where there was little before, I think your question probably is - "What is left for the commercial hatcherymen in the private ponds?" To this question I would say, "Quite a bit."

Our private pond licenses are issued directly from each of our seven administrative districts and there is no central record of them in the main office where I now work. So when Paul asked me to give this talk, I asked each of our District Supervisors to send me the total number of private pond licenses his district had issued. There is no time limit on a private license; because it is free it runs forever. So without checking each license holder individually there is no way of knowing if the pond covered by the license is still active, or if the dam has washed out, or if rooted aquatics have choked out all open water, or if something else has happened. Thus, the total I am going to give you is undoubtedly high.

Although most of the Supervisors checked their lists with some of their wardens and crossed out ones they knew were inactive, undoubtedly some inactive ones are included in this total of over 1,650 licensed private ponds in Montana. But even

if 10 percent of them are inactive (and I suspect 10 percent would be high) that still leaves about 1,500 of them, or roughly ten times the number the state and federal agencies stock each year.

Well over half of the total licensed private ponds are in northcentral Montana, our Great Falls district. They reported over 950 licenses issued. Southcentral districts, Bozeman and Billings, reported almost 250, the Eastern districts, Glasgow and Miles City, had 300 and west of the Divide in Missoula and Kalispell there were about 150.

That should represent quite a market for you folks. Even if we take a ridiculously low estimate by saying half of the 1,650 licensed ponds are either inactive or are for warm-water fish and the remainder only average half the size of the ponds the state stocks, we are still talking about $2\frac{1}{2}$ to 4 times the amount of farm pond waters that we stock annually, that are available for your market. If the private owners stock at the same rate we do, this should represent a market for 800,000 to 1.2 million trout fingerlings for you folks each year in Montana's private ponds.

I don't know whether you are utilizing this market or not. There is no requirement that private pond planting records be submitted to the state, and I probably wouldn't have the time to review or summarize them if they were. All I

can do is tell you about what I think the market is and hope that you are satisfying it. For although our department's job is concerned with public trout fishing, we certainly recognize that private trout fishing fills a need that we can't fill. So we wish you success in your efforts to fulfill this need because we realize that properly regulated private trout fishing will complement, rather than compete with, public trout fishing.