THE FRESNO RESERVOIR FISHERY

ITS STATUS AND RECOMMENDATIONS

James A. Posewitz
October 16, 1967

History

The series of events that have taken place in Fresno Reservoir since its impoundment are not well documented. The best that can be done is relate the hearsay information gathered from individuals familiar with the events that occurred in this reservoir. While this information is not precise scientific data, there is no reason to believe that it does not represent what actually occurred in this impoundment.

From its impoundment in 1939 through the 1940's Fresno Reservoir provided excellent fishing. Trout fishing was good from the beginning, and in the late 1940's crappie also provided excellent angling. Both species were very popular with the angling public. In about 1948 the first northern pike was caught from Fresno. At the time it was considered such a rarity that the specimen was mounted and displayed in a Havre clothing store. At this time Fresno was probably at its peak of good crappie and trout fishing. In 1950 and 1951 northern pike were becoming common in the catch and anglers reported catching 18-inch northerns with trout in their stomachs. By 1954 the catch was predominantly northern. Crappie after their brief entry into the creel had practically disappeared from the catch. Through the mid 1950's Fresno became known as a good northern reservoir and good catches were made. The size and distribution was described as "everything from hammer handles to 20 pounders." Department records show that rainbow trout were planted through 1952 and consisted of fish described at that time as adults.

After 1952 the Fish and Game Department abandoned efforts to maintain a trout fishery in the face of a thriving northern pike population and instead

developed a trout fishery south of Havre in the Bearpaw Mountains. Bearpaw Lake, a 37-acre reservoir, was built for this purpose at a cost of about $150,000. The lake and Beaver Creek have been stocked with catchable fish annually. Walleye were planted in Fresno for a number of years since 1952 and are now well established there.

The exact origin of the northern pike in Fresno is a matter of speculation and debate in the Havre-Chinook area. Former department employees are often mentioned as having introduced the northerns under a variety of circumstances. It is possible that they reached Fresno through the diversion from the St. Marys Drainage where they are native.

The latest management effort in Fresno was an experimental plant of kokanee that consisted of approximately 2,000,000 fish each spring over the last four years. It was thought that the pelagic habits of the kokanee would cause them to inhabit different areas of the reservoir than either the northern or walleye making them less vulnerable to predation. This apparently was not the case and the kokanee failed to develop into a fishery. Since kokanee did survive in a farm pond less than five miles from Fresno, water temperatures are not believed to be the cause for the failure of these plants. It is believed that they either fell victim to predation or left the reservoir with the heavy runoffs that passed through the reservoir in recent years.

Over the years Fresno has been plagued by violent water level fluctuations. Some years, during spring floods, water passed over the spillway at depths in excess of three feet. In the late summer of the same years the water became so low that trash racks protecting the outlet works were exposed.

Netting Results

Fresno Reservoir was sampled in 1965, 1966 and 1967 by gill netting and beach seining. The gill netting confirmed what most fishermen already knew, the reservoir was sparsely populated with fish. It also indicated that almost half the adult fish population was made up of predator fish. What we have in Fresno at the present time is an aquatic environment that could be compared to a forest wherein every other animal is either a wolf or coyote that must stay alive by eating other wolves and coyotes.

In the three years of gill netting only 382 fish were captured. Of these 55 were northern pike and 125 were walleyes. Together the walleye and northerns comprised 47.1 percent of the catch. In Fort Peck Reservoir where we have a healthy population of northerns, they comprised 3.6 percent of the catch during the 1964 gill netting, and 1.2 percent of the 1965 gill netting. Sauger and northern combined in the Fort Peck catch made up 13.9 percent of the catch in 1964 and 10.1 percent in 1965.

The beach seining to capture young-of-the-year fish in Fresno consisted of 17 hauls with a 100-foot long, 9-foot deep seine in 1965 and 1967. The catch contained the following young-of-the-year: 14 northern pike, 24 walleye and 21 crappie. Twenty-one similar hauls made in Fort Peck in 1965 captured 34 northern pike, 4,650 yellow perch, and 990 crappie. Examination of the fish stomachs showed the most common food item of walleye and northerns in Fresno was small northerns. In Fort Peck northern and sauger stomachs usually contain perch.

We have concluded from these data that if we are to have any kind of a fishery in Fresno Reservoir, we are going to have to take some action that will alter the existing balance between the predator and prey species. As was noted earlier, the northern population developed at a time when we were planting large trout and the northerns ultimately dominated the reservoir. To resume the planting

of trout into a fish population that consists of almost half walleye and starving northerns, in addition to being costly, shows little promise of success. If the resumption of trout planting in Fresno is contemplated, it certainly should not be attempted until a forage-fish base can be established to serve as a buffer between the walleye and northerns and the trout. On the other hand, should we be able to establish this buffer, Fresno would then be an acceptable walleye-northern-pan-fish fishery.

Recommended Program

Because of the size of Fresno, the international complications of the Milk River and the St. Marys diversion where northerns are native, chemical treatment to eradicate less desirable fish species cannot now be considered feasible.

We are recommending that an effort be made to establish a forage base in Fresno that will benefit the northern and walleye populations and provide fishing for pan-sized fish. We propose to establish this forage-fish base with crappie, yellow perch, emerald shiners and perhaps other minnow species. Crappie and emerald shiners are already in Fresno but additional transplants, probably from Fort Peck, will have to be made. Yellow perch will have to be introduced; these will also come from Fort Peck.

The present habitat in Fresno will make the establishing of these species extremely difficult unless we can afford them some protection. To give this protection we recommend a program of brush shelter construction, and the creation of potholes below the highwater line to retain water when the reservoir is drawn down.

The practice of brush shelter construction is an accepted method of providing cover and spawning habitat for crappie. These have been used in other states and in many cases accomplished the task they were intended to do. We recommend that these be placed near the point of maximum drawdown. In order to place a significant

number, temporary labor will have to be hired and assigned to build shelters on the ice during the winter.

The creation of potholes is a new idea developed in district six and we believe it has a great deal of merit. These potholes would be blasted into the bottoms of coulees normally exposed by drawdown. Their purpose would be to retain enough water to insure a good growth of aquatic plants through the period when the bottom is normally exposed and such plants killed. When these areas are subsequently reflooded there will be permanent weed beds at practically all elevations to accommodate and protect spawning crappie and perch along with their subsequent progeny. These potholes could be constructed whenever the optimum degree of soil saturation for blasting occurs.

With the kind of fish populations we are contemplating, minnow fishing would undoubtedly be an asset. We recommend that this decision be deferred until the success of the proposed program can be evaluated, the Tiber-Fresno interchange route established and the possibility of upstream barriers thoroughly investigated and perhaps constructed. We are opening discussions of this problem with the Canadian fish managers during October or November of this year.

Trout fishing in this area, of course, will always be the only kind of fishing for some people. In order to increase the trout fishing available in the Hill and Blaine County area, we recommend support for the second Beaver Creek Reservoir and Bailey Pond projects. In addition we are presently making an intensive effort to determine if current highway construction projects in this area can create fishing reservoirs that could be managed with trout.