

Construction of a new fish crib reef at Michigamme Reservoir

A second fish habitat crib reef was constructed at the Michigamme Reservoir off WE Energies Site 19 (Challancin's Landing) during February 2013. The cribs for the reef were built by about 25 local volunteers, Wildlife Unlimited of Iron County, and the Iron County Sheriff Department public works crew in cooperation with WE Energies. The reef was funded with grants from WE Energies Michigamme Reservoir Habitat Fund and Wildlife Unlimited of Iron County.

This new reef is located about 0.5 mile northwest (see map) of WE Site 19. The first reef constructed last winter (2012) is located about one mile east northeast of WE Site 19. Both fish habitat reefs are located in the "Deer River Arm" of the 7000 acre Michigamme Reservoir in Iron County.

The crib logs are placed in a crude log cabin style to form a structure eight feet by eight feet by about four to five feet high and made out of hardwood pulp logs. There are 20 cribs laid out in a "zigzag" pattern about 300 feet in length. Fisheries research revealed that a reef made of a number of cribs has more habitat value than individual cribs placed around the lake. The zigzag pattern maximizes the habitat value (increased surface area) of the reef. Prior to ice out the cribs will drop through the ice to the bottom at about 23 feet deep (full reservoir level). The cribs are placed at a depth so they are below the winter drawdown ice level, but readily accessible to game fish during the full pool periods (open water).

Michigamme Reservoir has a stable self sustaining walleye population and good numbers of smallmouth bass and panfish. Natural fish cover in the form of weed beds and woody cover are very limited in the reservoir due to ice damage during draw down operations and destruction by the exotic rusty crayfish. The reef type and design will provide a large site of woody cover and simulate a large weed bed. The primary reason for installing the crib reef was to make up for lost fish habitat. In the past, lack of cover led to excessive predation on juvenile walleye and panfish. The vulnerability of juvenile walleye and panfish was due to the crowding of young fish in less water area with more concentrated predators (larger walleye and pike) and without cover to seek refuge. A second benefit of the crib reef is that they improve the angler's fishing success. A fisheries habitat study in Ontario, at similar latitude to Michigan, revealed with proper wood species selection this reef can last over a hundred years. The reef was built with hard maple logs and with pine and hardwood slab wood; both long lasting species underwater.

During my time as a DNR Fisheries Biologist, I have done extensive fish utilization evaluations of the 15 reefs built in Iron and Dickinson County lakes using SCUBA and snorkeling. Those evaluations give a good idea of what to expect for fish using this new reef. Walleye, smallmouth bass, black crappie, bluegill, rock bass, and yellow perch will all use the reef, but typically not all at the same time. Typically, fish species groups will move into the reef area for a period of time and then move into other reservoir areas. Since walleye is one of the more dominant fish species in the overall Michigamme Reservoir fish population, it is likely they will be prominent at the reef site. I have

observed walleye and other fish species segregating in the cribs by size/age groups. While diving in walleye lakes with fish crib reefs, I have observed small walleye utilizing some cribs in the reef while larger walleye were together in a different part of that reef. We built some cribs more densely packed to provide better cover for juvenile fish and other cribs with larger spaces for adult fish.

Next year Wildlife Unlimited of Iron County hopes to build one more crib reef (for a total of three) at Michigamme Reservoir. This is dependent on future grant awards for this project. The project is also very dependent on volunteer labor and the availability of volunteers will also affect future reef projects. If these additional reefs can be constructed it will greatly increase fish habitat and cover that is very scarce in Michigamme Reservoir. Additional reefs will help spread fishing pressure out since this reef site is likely to be popular with anglers. With adequate grant funding and volunteer participation this has the potential to produce several of the better fishing spots on Michigamme Reservoir for many years to come.

My son and I, as well as other anglers, have been catching walleye, bluegill and some crappie on the first crib reef. These two reefs should provide good fishing spots for a number of angler generations to come.

By Bill Ziegler

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