



Summary of Fishery Survey Medford Flowage, Taylor County, 2013

Survey Effort

On June 10, 2013 WDNR's Fisheries Management Team from Park Falls completed an electrofishing survey to assess the abundance and size structure of largemouth bass and sunfish populations in Medford Flowage, locally known as the Medford Mill Pond. With water temperature at 64 – 65°F, our survey was well-timed to represent target species during their spawning activities. We sampled all fish species in a complete shoreline circuit (0.97 mile) in 0.47 hour. Quality, preferred, and memorable sizes referenced in this summary are based on standard proportions of world record lengths developed for each species by the American Fisheries Society. “Keeper size” is based on known angler behavior.

Habitat Characteristics

Medford Flowage is a shallow, 19-acre impoundment on the Black River within the city of Medford, WI. Maximum and average depths are 8 and 4 feet, respectively. As the river's name implies, tannins, lignins, and suspended organic particles draining from wetlands contribute to low water clarity (Secchi depth < 2 feet), and consequently aquatic vegetation is sparse. Dissolved minerals result in moderate water hardness. Boulders comprise about half of the near shore lakebed with the remainder covered by silt, sand, gravel, rubble, and detritus. The shorelands have been altered to a great extent—only about 15% resemble a natural condition. Lawn, scattered shade trees, and rip-rap flank the entire west shore in the municipal park, and most of the east shoreline has commercial development. In the mid-1980s artificial structures assembled from wooden pallets, tires, and rock were installed to supplement fish habitat. A boat ramp, a fishing pier, a riverside walkway, and the manicured shoreline provide convenient access for angling in an urban setting.

Summary of Results

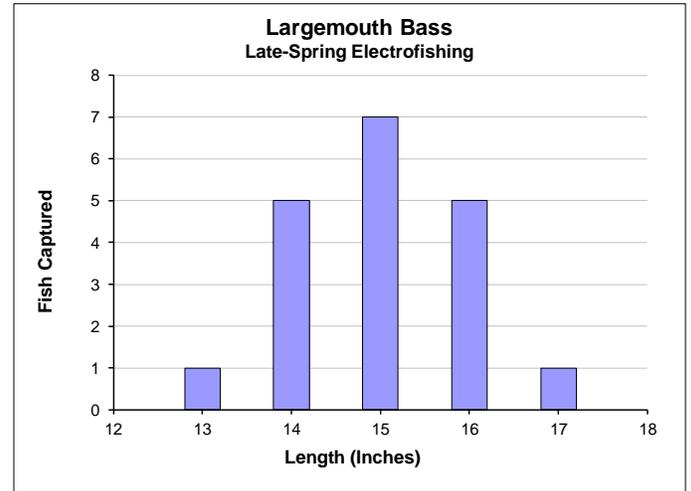
We captured eight fish species in our electrofishing survey. Largemouth bass and sunfish (bluegill and pumpkinseed) were the principle predator and prey, while northern pike hold a minor role in structuring the fish community. White sucker and golden shiners complement the forage base. We did not encounter several other fishes expected to be found in this rocky, riverine impoundment, including smallmouth bass, rock bass, redhorse, and bullheads.

Largemouth Bass



Late Spring Electrofishing

Captured 20 per mile or 40 per hour $\geq 8''$	
Quality Size $\geq 12''$	100%
Preferred Size $\geq 15''$	68%



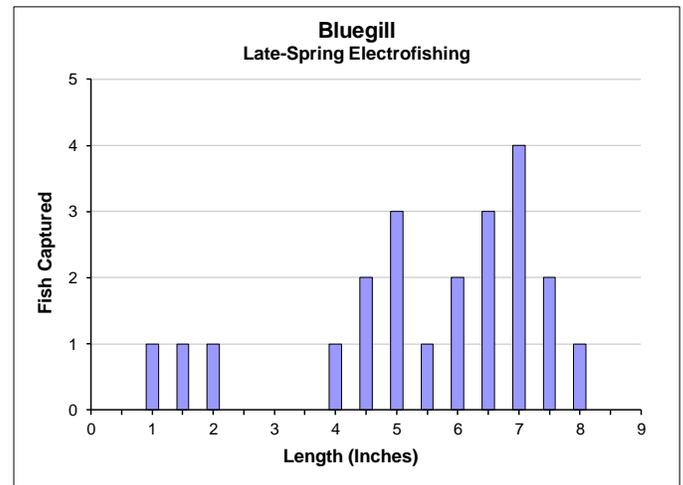
Our electrofishing capture rate indicated a largemouth bass population at a moderate level of abundance. However, high proportions of quality- and preferred-size fish, coupled with the absence of young bass at small and intermediate sizes, together suggest that natural reproduction is not adding new recruits to the adult population since the longstanding annual stocking of largemouth bass fingerlings 1 – 6 inches long was discontinued in 2003 when WDNR hatcheries suspended largemouth bass production. Anglers can expect good fishing opportunity for largemouth bass 15 inches and longer for several more years until the youngest individuals succumb to harvest or natural causes of mortality. Resumed stocking of largemouth bass fingerlings, now produced again in WDNR hatcheries or purchased with private funds and planted with WDNR approval, could reestablish a viable source of recruitment and extend the life of this fishery that is especially popular among young anglers.

Bluegill



Late Spring Electrofishing

Captured 20 per mile or 40 per hour $\geq 3''$	
Quality Size $\geq 6''$	63%
Keeper Size $\geq 7''$	37%
Preferred Size $\geq 8''$	5%

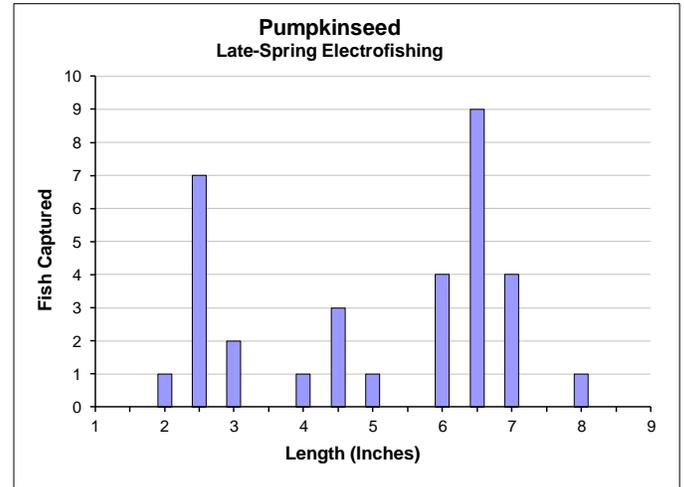


Pumpkinseed



Late Spring Electrofishing

Captured 26 per mile or 53 per hour $\geq 3"$	
Quality Size $\geq 6"$	72%
Keeper Size $\geq 7"$	20%
Preferred Size $\geq 8"$	4%



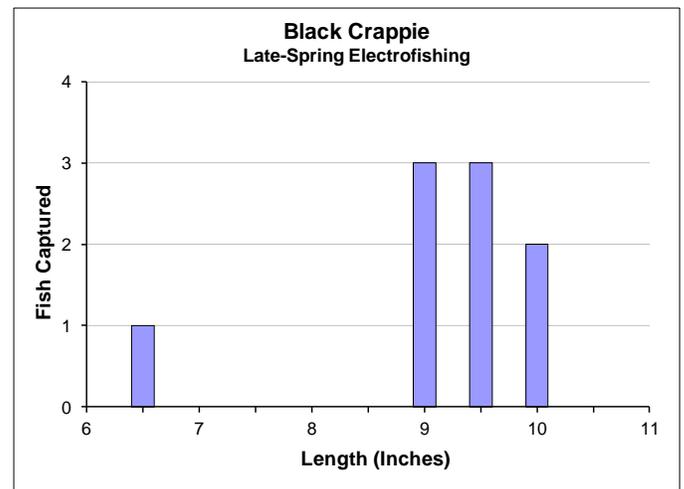
The bluegills, pumpkinseeds, and black crappies captured in our survey are the likely descendants of adults transferred from nearby waters in 1970, 1987, 1990, 1991, and 1998. Our measures indicate that pumpkinseeds were slightly more abundant than bluegills, but the bluegill population had a greater percentage of keeper-size fish.

Black Crappie



Late Spring Electrofishing

Captured 9.3 per mile or 19 per hour $\geq 5"$	
Quality Size $\geq 8"$	89%
Preferred Size $\geq 10"$	22%



Though black crappie, northern pike, and yellow perch captured by electrofishing in late spring may not accurately characterize their population status, our survey confirmed that crappie 9 – 10 inches long add diversity to angling opportunity. We captured only one 6.5-inch perch and four pike 15 – 20.5 inches long. Our observations of habitat, water quality, and fish community composition in Medford Flowage and the Black River suggest that occasional angling reports of pike 30 inches and longer are plausible.

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