



Summary of Fishery Surveys Wellington Lake, Taylor County, 2011

WDNR's Fisheries Management Team from Park Falls completed fyke netting and electrofishing surveys in spring 2011 to assess the status of important fish populations in 43-acre Wellington Lake, located about 2 miles southwest of Rib Lake, WI. We set 3 fyke nets and fished them overnight on May 5-6, 2011 for 3 net-nights of effort directed toward walleye, northern pike, and yellow perch. With water temperature at 65°F the timing of our May 23, 2011 electrofishing survey corresponded well with largemouth bass and bluegill spawning activity, allowing us to accurately assess the relative abundance and size distribution of these populations. We sampled the entire shoreline (1.4 miles) in ¾ hour, including a half mile sub-sampled for panfish in ¼ 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

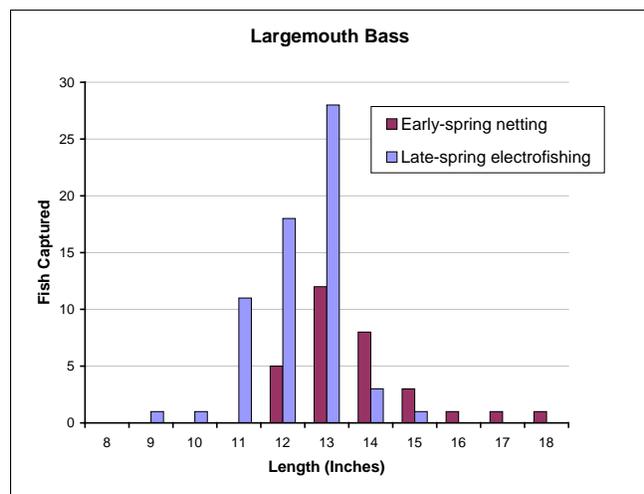
Wellington Lake is a soft water, seepage lake that drains intermittently to Silvernagle Creek. Maximum depth is 32 feet. Near-shore bottom materials include rock (35%), gravel (25%), sand (20%), and muck (20%). Half the shoreline is hardwood-grass upland lightly developed with a few dwellings, agricultural fields, and a roadside public boat ramp with parking. The remaining shoreland is predominantly conifer-shrub swamp and leatherleaf bog. Water clarity was considered "good" to "very good" during our 2011 surveys.

Summary of Results

Largemouth Bass



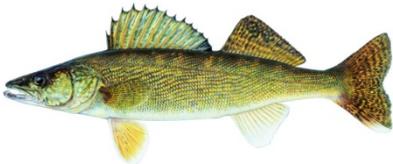
Fyke Netting—May 5-6, 2011	
Captured 10 per net-night ≥ 8"	
Quality Size ≥ 12"	100%
Preferred Size ≥ 15"	19%
Electrofishing—May 23, 2011	
Captured 45 per mile or 84 per hour ≥ 8"	
Quality Size ≥ 12"	79%
Preferred Size ≥ 15"	2%



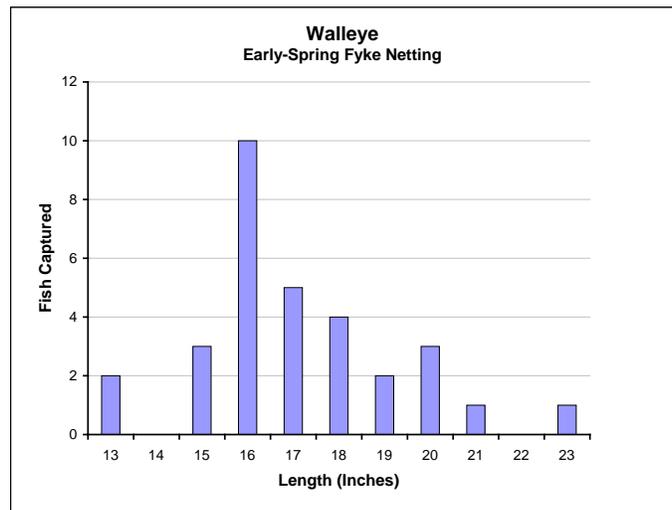
Our electrofishing capture rate revealed a high-density largemouth bass population that should offer fast fishing action for mostly sublegal fish. Fyke nets typically capture very few largemouth bass and exhibit a sampling bias that favors the largest bass in the population. Our high fyke net capture rate confirms high largemouth bass density. We do not know why largemouth bass of preferred size occurred in our fyke nets but were nearly absent from our electrofishing sample.

Age analysis using scales revealed that largemouth bass grew very slowly, averaging only 11.8 inches long at age 6 (range = 11.1 – 12.4; n = 7) and 12.5 inches at age 7 (range = 11.9 – 13.1; n = 10) — 3.2 and 3.7 inches less than the regional average length at those ages. Largemouth bass starting the year 10 – 13.8 inches long grew on average only 0.7 inch (range = 0.4 – 1.1; n = 34) by the end of the growing season, requiring 10 years to reach the minimum harvestable length of 14 inches. With such a small annual gain few bass are likely to attain legal and preferred sizes before the oldest bass succumb to natural causes of mortality. Implementing a 12- to 15-inch protected slot length limit might serve to focus angler harvest on slow-growing individuals, reduce their abundance and intra-specific competition, and improve population size structure.

Walleye



Captured 10 per net-night $\geq 10''$	
Quality Size $\geq 15''$	94%
Preferred Size $\geq 20''$	16%



Investments from local groups who raised and stocked large walleye fingerlings are paying off to establish a bonus fishery and to maintain satisfactory panfish abundance and size structure. Early spring fyke nets captured walleye of all sizes at a rate that suggests moderate population abundance and desirable size structure. Maintaining the bonus walleye fishery will likely rely on privately funded and DNR permitted stocking 5- to 8-inch fingerlings, whose behavior and larger size may give them advantage to evade predation by abundant largemouth bass.

Northern Pike



Captured 1.7 per net-night $\geq 14''$	
Quality Size $\geq 21''$	60%
Preferred Size $\geq 28''$	0%

Yellow Perch



Captured 0.3 per net-night $\geq 5''$	
Quality Size $\geq 8''$	100%
Preferred Size $\geq 10''$	0%

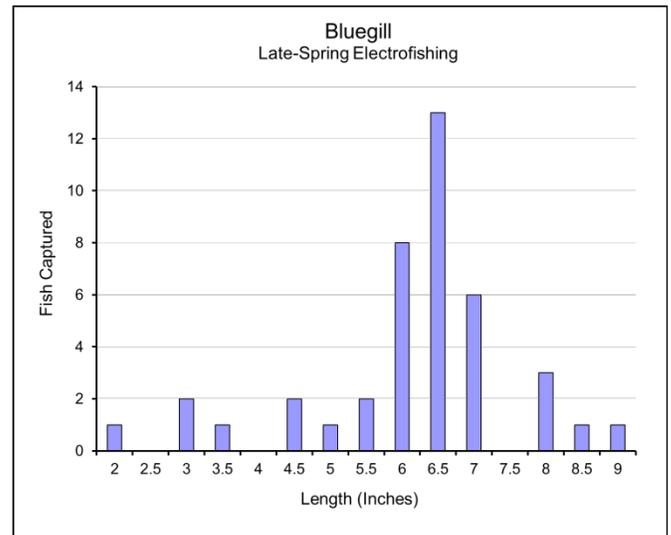
Though our early spring netting survey occurred after the peak of northern pike and yellow perch spawning activity, our samples suggest that pike, perch, and black crappie were too few and too small to draw anglers' attention. The apparent shortage of yellow perch, the preferred food of several species, may partially account for slower-than-average growth of largemouth bass.

Bluegill



Late-Spring Electrofishing

Captured 75 per mile or 160 per hour $\geq 3''$	
Quality Size $\geq 6''$	80%
Keeper Size $\geq 7''$	28%
Preferred Size $\geq 8''$	13%



We found favorable proportions of keeper-size and preferred-size bluegills in our late spring electrofishing sample, probably because predation by young walleye (stocked annually at 4 – 8 large fingerlings per acre since 2008) and abundant largemouth bass is effectively controlling bluegill recruitment to maintain moderate abundance and satisfactory growth.

Survey data collected and analyzed by: Kendal Patrie, Greg Rublee, and Jeff Scheirer—WDNR Fishery Team, Park Falls.

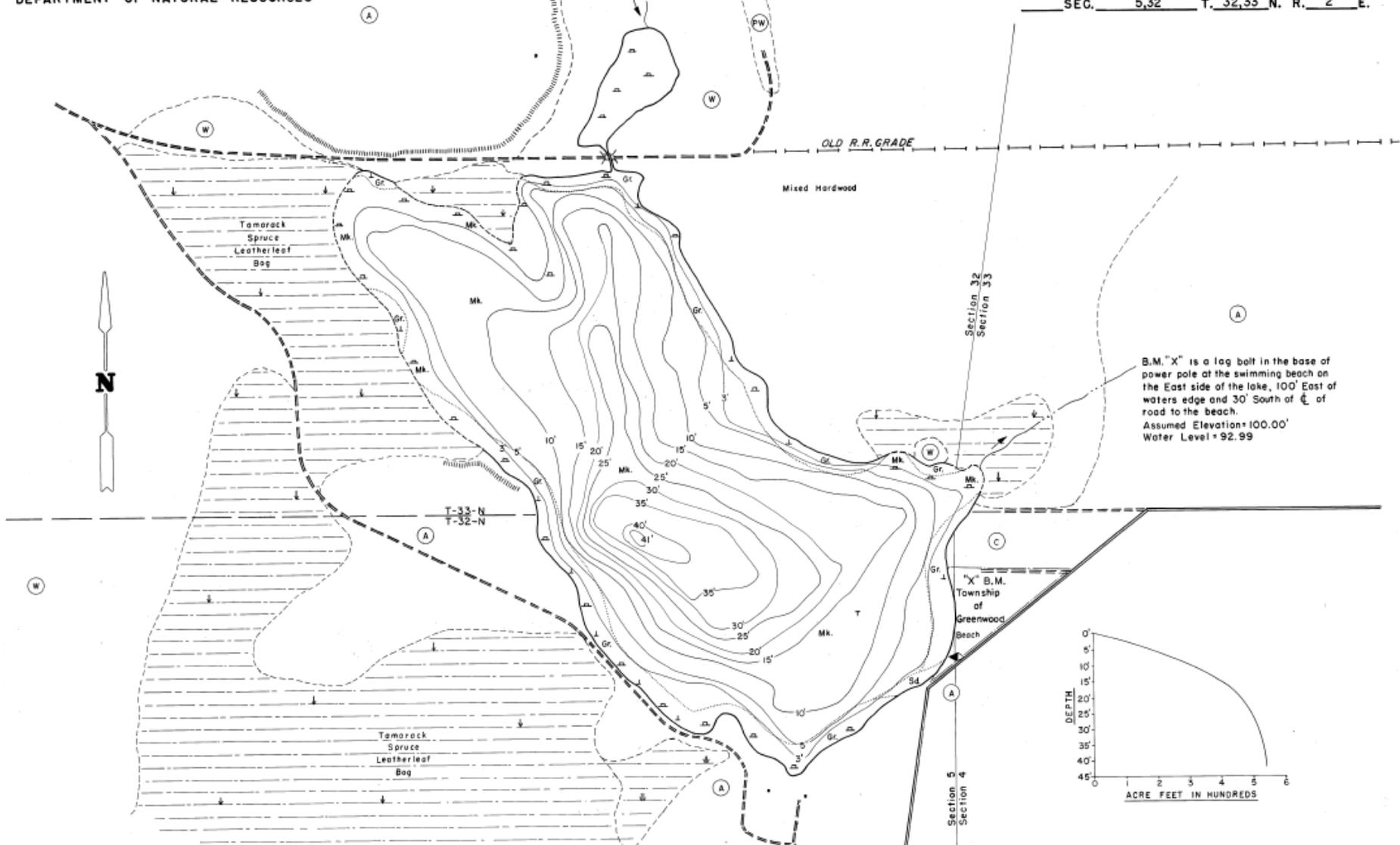
Written by: Jeff Scheirer—Fishery Biologist, October 19, 2012.

Reviewed by: Dave Neuswanger—Hayward Field Unit Supervisor, November 6, 2012.

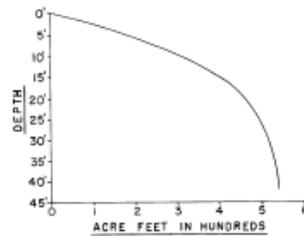
Approved for web posting by: Steve Avelallemant—Northern Administrative District Supervisor, March 29, 2013.

LAKE SURVEY MAP

WELLINGTON LAKE TAYLOR COUNTY
SEC. 5,32 T. 32,33 N. R. 2 E.



B.M. "X" is a lag bolt in the base of power pole at the swimming beach on the East side of the lake, 100' East of waters edge and 30' South of center of road to the beach.
Assumed Elevation = 100.00'
Water Level = 92.99



EQUIPMENT RECORDING SONAR MAPPED		JULY 1973	
		MONTH	YEAR
TOPOGRAPHIC SYMBOLS			
(B) Brush	() Steep slope	P. Peat	B Boulders
(PW) Partially wooded	(---) Indefinite shoreline	Mk. Muck	(X) Stumps & Snags
(W) Wooded	(---) Marsh	C. Clay	(X) Rock danger to navigation
(C) Cleared	(---) Spring	M. Marl	T Submergent vegetation
(P) Pastured	(---) Intermittent stream	Sd. Sand	(↓) Emergent vegetation
(A) Agricultural	(---) Permanent inlet	Sl. Silt	(△) Floating vegetation
B.M. Bench Mark	(---) Permanent outlet	Gr. Gravel	(+/-) Brush shelters
(D) Dwelling	(---) Dam	R. Rubble	
(R) Resort	(---) D.N.R. State owned land	Bc. Bedrock	
(C) Camp			

← Chelsea 3 Miles

200' 0' 200' 400' 600' 800'

SCALE

◆ Access ◀ Access with Parking ▶ Boat Livery

Drawn by: G. Thussen
Field work by: C. Busch, K. Cable, L. Sether

SPECIES OF FISH	Abundance		
	Abundant	Common	Present
Muskie			
N. Pike			
Walleye			X
L.M. Bass	X		
S.M. Bass	X		
Fatfish	X		
Trout	X		

WATER AREA 42.83 ACRES
 UNDER 3 FT. 15 %
 OVER 20 FT. 20 %
 MAX. DEPTH 41 FEET
 TOTAL ALK. 20 P.P.M.
 VOLUME 543.0 ACRE FT.
 MAIN SHORELINE 1.3 MI.
 ISLAND SHORELINE 0 MI.