



Wisconsin DNR Fisheries Information Sheet

Water: North Fork Thunder River

County: Oconto

WBIC: 535600

Year: 2015

The North Fork Thunder River originates at the confluence of East and West Thunder Creeks. The river runs in a southeasterly direction through northern Oconto and Marinette County to its junction with the South Fork to form the Thunder River. The total length of the North Fork Thunder River is 14 miles and has an average depth of less than 2 feet. A majority of the stream is located in Oconto County, within the Nicolet National Forest, before entering Marinette County and running completely through private property. Historically, this system had been heavily impacted by beaver activity. Beaver control activities have been ongoing for over 20 years and are still actively practiced today.

Brook trout, although native to the system, were stocked intermittently between 1938 and 1959. No brook trout have been stocked since 1959. Brown trout have persisted in low numbers and rainbow trout have been collected in previous surveys.

The Department of Natural Resources assessed the brook and brown trout populations in the North Fork Thunder River, Oconto County, on July 27th, 2015. Barge electrofishing was conducted upstream on a 0.38 mile section of the river from the pipeline crossing off of Bucks Ranch Road in the Town of Lakewood (T.33N. -R.17E. Section24) (Figure 1). This 0.38 mile station is sampled in alternate years.

Brook Trout

A total of 245 brook trout was collected in the North Fork Thunder River (Figure 2). Brook trout ranged in length from 2.0 to 10.5 inches and averaged 5.6 inches. Overall, 13% of brook trout were greater than the 8-inch minimum length limit (MLL).

Brown Trout

A total of 31 brown trout was captured in 2015 (Figure 3). Brown trout ranged in length from 2.5 to 14.3 inches and averaged 7.9 inches. More than 50% of the brown trout collected were greater than 8 inches.

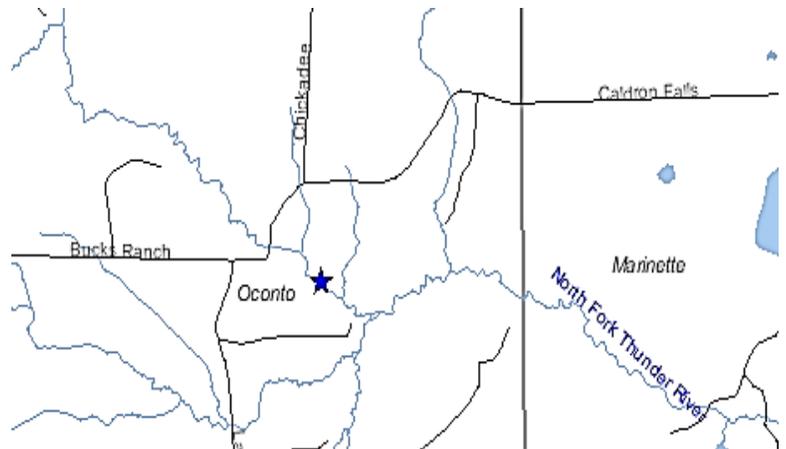


Figure 1. Sampling location (star) on the North Fork Thunder River, Oconto County.

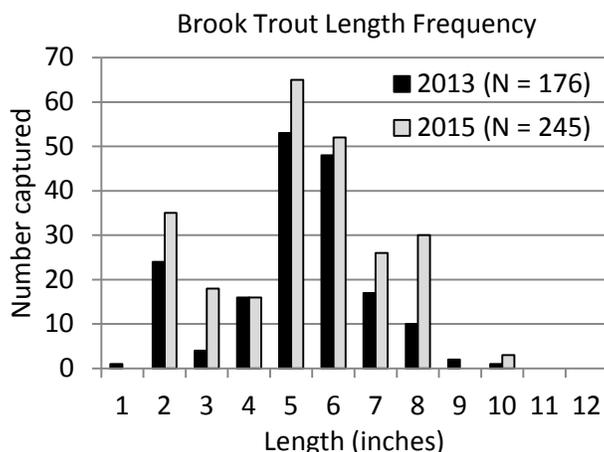


Figure 2. Length frequency distribution of brook trout collected from the North Fork Thunder River, Oconto County from 2013 and 2015.

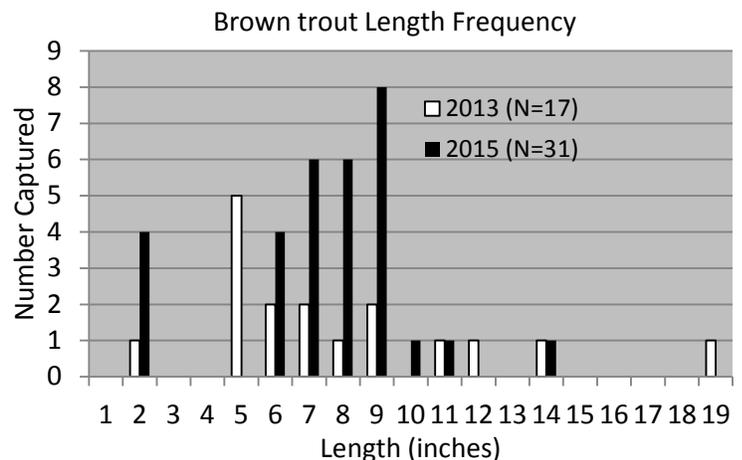


Figure 3. Length frequency distribution of brown trout collected from the North Fork Thunder River, Oconto County from 2013 and 2015.

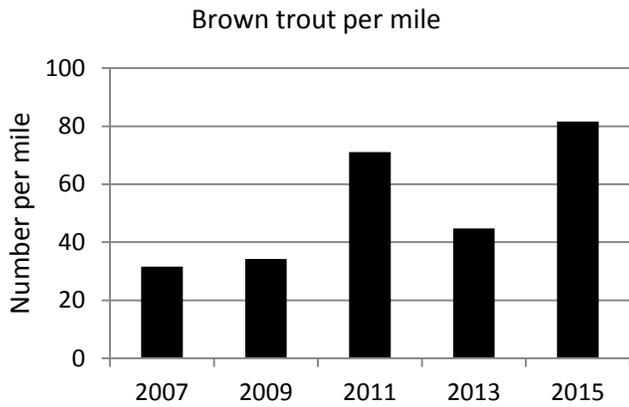


Figure 4. Brown trout per mile from the North Fork Thunder River, Oconto County.

The brook trout population in the North Fork Thunder River is healthy and self-sustaining. Brook trout numbers improved dramatically between 2007 and 2011 (Figure 5). The average number of brook trout per mile in 2007 was 392 fish and increased to over 1000 fish per mile in both 2009 and 2011. The 2013 survey showed a decline to previous levels, but in 2015 brook trout numbers increased. Compared to 2013, this is a 39% increase in total fish captured and more than double the brook trout over 8 inches (Figure 2).

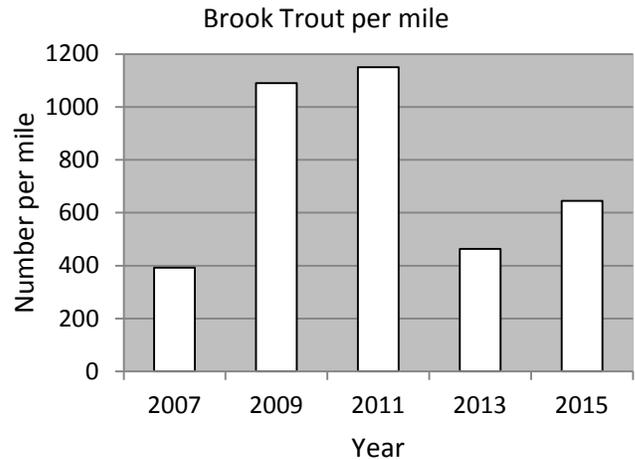


Figure 5. Brook trout per mile from the North Fork Thunder River, Oconto County.

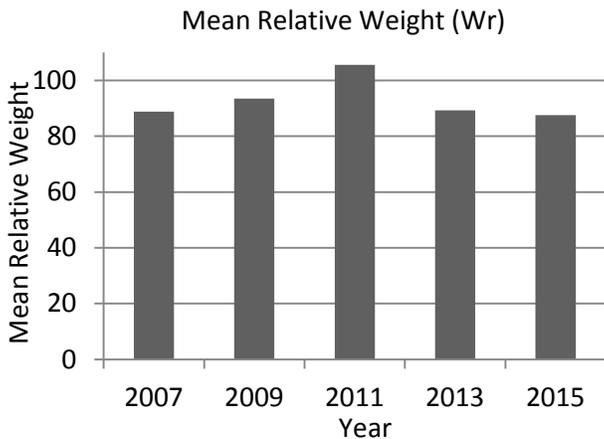


Figure 6. Mean relative weight of brook trout collected from the North Fork Thunder River, Oconto County from 2007 to 2015.

Relative weight, as a measure of “plumpness” and overall condition, provides an indication of prey availability and resource usage. A relatively low mean relative weight (i.e. well below the species standard of 100) indicates that food resources may be limited. Mean relative weights for brook trout have remained stable between 2007 and 2015 (Figure 6). The only exception is 2011 when mean relative weights were well above the species standard. When mean relative weight is above the species standard of 100, then food and resources are in abundance and there is potential for additional fish production.

The current (2016) fishing regulations for the North Fork Thunder River have been changed from a 12-inch MLL for brown trout and an 8-inch MLL for brook trout and a daily bag limit of 3 trout total to an 8-inch MLL for both brown and brook trout. The bag limit of 3 total trout has not changed.

You may obtain a copy of current fishing regulations when you purchase your fishing license or download a copy from our web site at: (<http://dnr.wi.gov/fish/regulations/>).

Questions about fisheries management activities for the North Fork Thunder River in Oconto County can be directed to:

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