



# North & South Duck Rivers – Trout Stream Inventories

In part of reporting for FES Project 19-035  
Recreational Fisheries Enhancement and Youth  
Angling Opportunities in the North Parkland

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## Objective

Many of the cold-water escarpment streams of the Duck Mountains have been stocked with brook trout dating back to the 1950s. In many of these streams, specific habitat requirements were met, and naturalized populations of brook trout became established. Two of these streams, which flow off the east slope of the Duck Mountains are the North and South Duck Rivers. Stocking records had shown these streams had not been stocked in some time; with North Duck's most recent planting of brook trout in 2003, and South Ducks in 1973. When stocking occurred on a more regular basis, both these fisheries were popular amongst the locals. In recent years, angling reports have been non-existent. Research, namely a report by DFO in 1985 found naturalized populations of brook trout in the South Duck River and Cowan Creek (a feeder tributary of the North Duck River).

In 2020, SVSFE set out to survey the North and South Duck Rivers with two objectives. (1) to conduct presence/absence surveys looking for naturalized populations of brook trout, and (2) create angling packages and promote the fishery(s) if results found such work was warranted.

## Methods

Pre-survey activities included determining stretches and habitats where brook trout were likely to be. Much of this information came from Rick Wowchuk, who grew up in the area and frequented the rivers regularly in the 1970's and 80's. Once sample locations were determined, one field day was spent dedicated to presence/absence surveys on each of the two streams. Surveys were completed with the use of a Smith-Root LR 24 at accessible areas near access trails/roads. Efforts were to find brook trout, therefore transect distance/time had no standard and areas/habitats were either continually shocked or spot stocked using best efforts to target trout in the time allocated. On the North Duck River, a total of four transects were completed at different sites on September 29<sup>th</sup>, 2020. In the South Duck River, three sites were completed on October 1<sup>st</sup>, 2020.

# Results

Table 1: North Duck River Results

North Duck River - Species Present 2020			
Site	Effort (seconds)	Distance (meters)	Species Present
1	1269	200	mottled sculpin, blacknose dace, longnose dace, johnny darter, brook stickleback, pearl dace
2	1573	325	mottled sculpin, pearl dace, blacknose dace, longnose dace, johnny darter
3	1126	130	mottled sculpin, blacknose dace, longnose dace, common shiner, johnny darter, pearl dace, white sucker
4	596	175	common shiner, pearl dace, blacknose shiner, white sucker, longnose dace

Table 2: South Duck River Results

South Duck River - Species Present 2020			
Site	Effort (seconds)	Distance (meters)	Species Present
1	512	100	blacknose dace, blacknose shiner, river shiner, spottail shiner, pearl dace, creek chub, johnny darter
2	Angling	100	Observed shiners, darters, and dace
3	1125	250	<b>brook trout</b> (MM 230/245mm), creek chub, pearl dace, blacknose dace, river shiner, fathead minnow
4	741	100	longnose dace, creek chub, pearl dace, brook stickleback, blacknose shiner



Figure 1: South Duck River Brook Trout



Figure 2: South Duck River Site 3



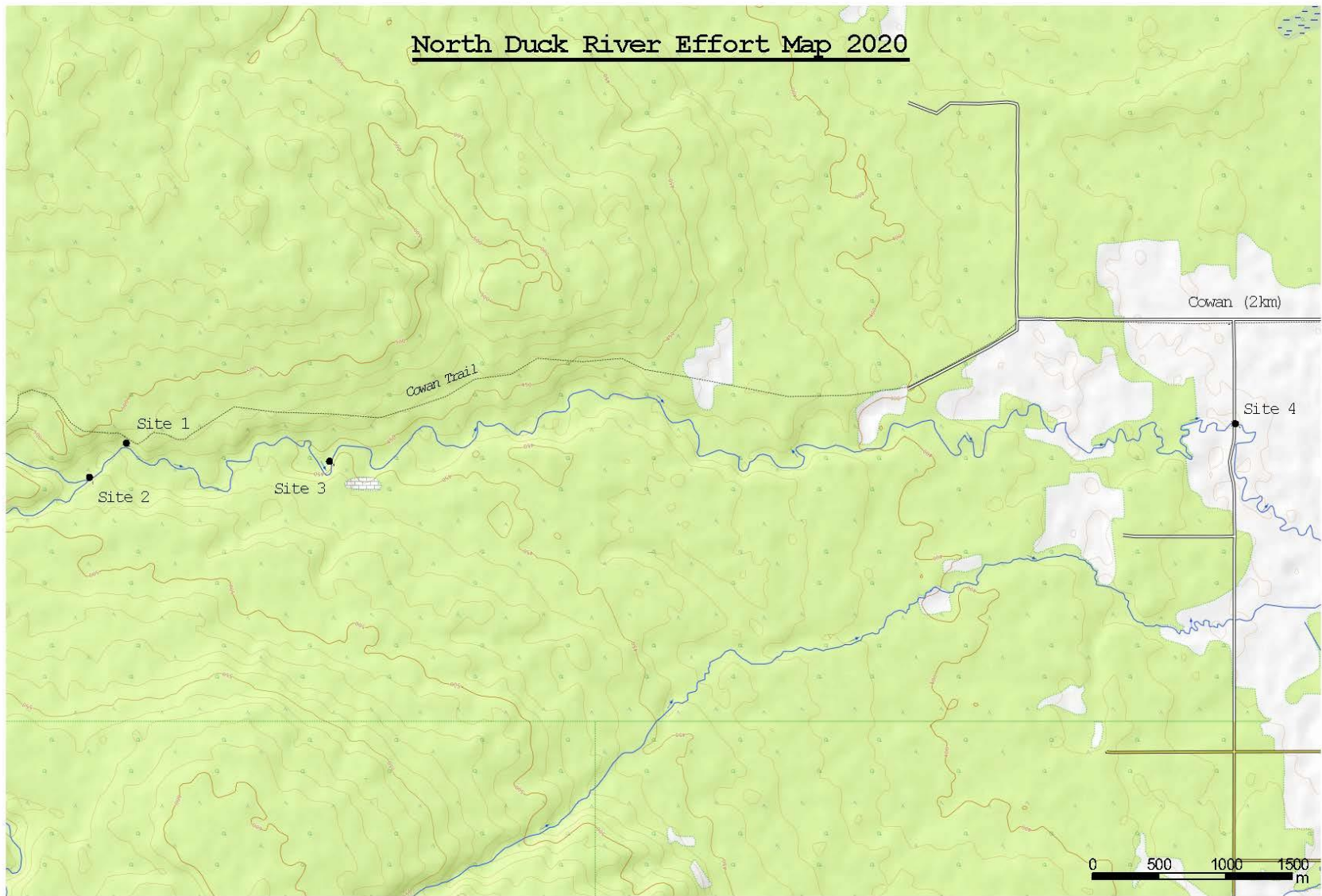


Figure 3: North Duck Effort Map

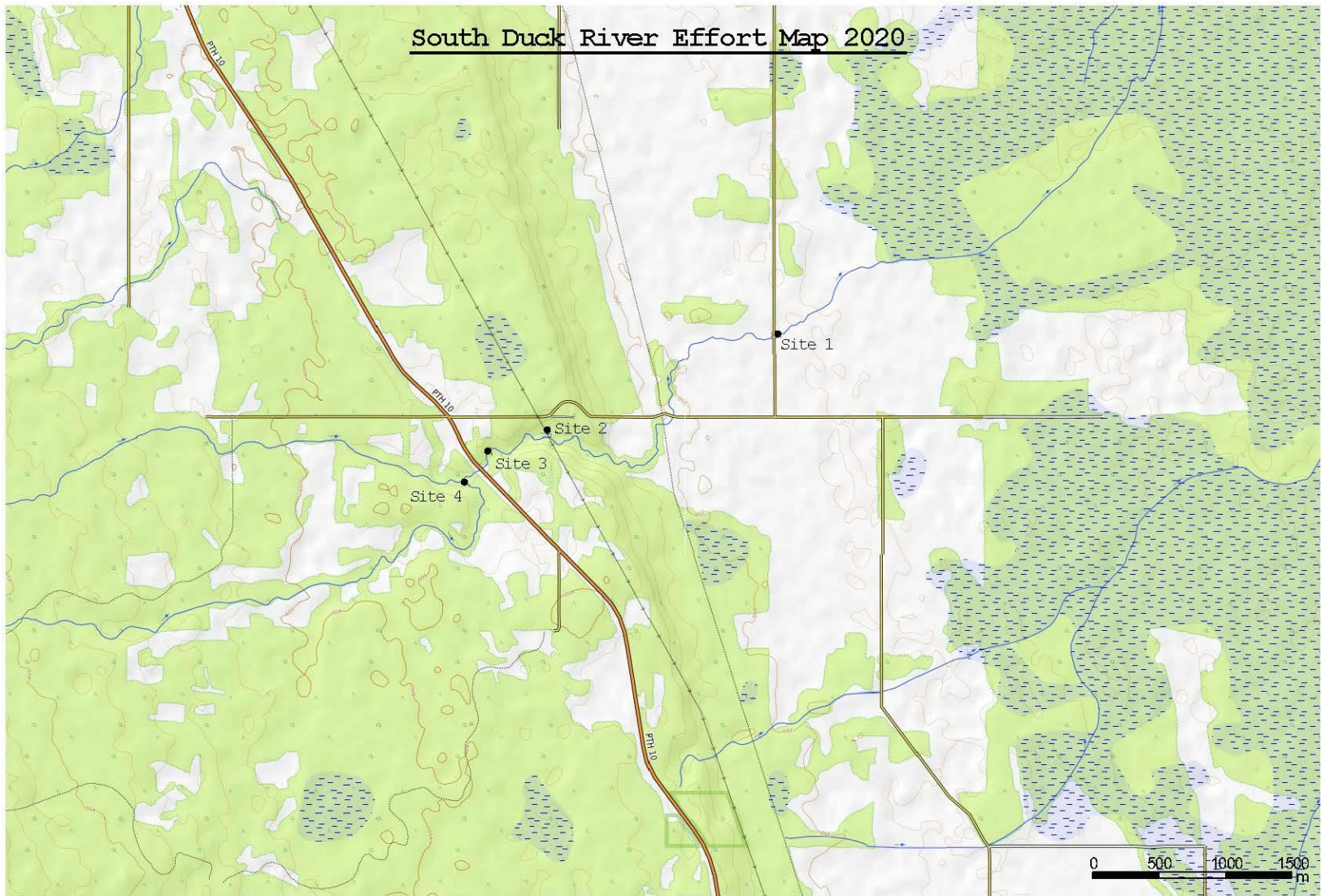


Figure 4: South Duck Effort Map



## Discussion

Brook trout were not found in the North Duck River. Efforts were low therefore it cannot be concluded that brook trout are absent in the system. Increased efforts, and perhaps efforts into Cowan Creek may have yielded different results. At the current time, it would not be recommended to spend additional time and money creating an angling package or promoting the fishery. Discussions with Ian Kitch (Regional Fisheries Manager) will determine next steps for managing the North Duck River. These discussions will conclude whether the provincial hatchery program could justify re-stocking the system and alternatively if there is demand for another trout stream off the east slope of the Duck Mountains.

On the other hand, brook trout were found to be present in the South Duck River. Approximately five trout of similar size were first observed in a pool upstream from site 3. Efforts to capture them using the backpack were unsuccessful as the river was too wide to effectively corral and stun the fish. 1/5 brook trout were captured which was a mature male measuring 230/245mm. The South Duck River was once used by the provincial hatchery program to collect brood stock. A few years ago, the province put a few days effort into locating brood which turned out unsuccessful. The province had essentially written the fishery off, making findings from 2020 beneficial. The South Duck could be used to source brood stock brook trout again in the future. Promoting the fishery and the creating an informational package cannot be justified at this time. First, aside provincial roads and rural road crossings are the only accessible stretches of river which do not require access through private land. Secondly, brook trout abundance is unknown and would require additional effort before promoting the fishery as a brook trout destination.

Overall, it is not recommended to spend any more time and effort promoting these streams as brook trout angling destinations. Future developments will determine if there is enough demand to spend more effort assessing these streams or even to begin re-stocking them. If this is the case, the information collected in 2020 will assist with these decisions and overall management plans.

## Literature Cited

Franzin, W.G., and S.M. Harbicht. 1985. An evaluation of the relative success of naturalized brook charr *Salvelinus fontinalis* (Mitchill), populations in the South Duck River and Cowan Creek, Duck Mountain Region, Manitoba. Can. Tech. Rep. Fish. Aquat. Sci. 1370: iv + 21 p.