

Percy Lake Ratepayers' Association (PLRA) Submission to the Panel on the
future of the Trent-Severn Waterway
July 28, 2007
Haliburton, Ontario

Percy Lake is a coldwater lake, the actual headwater to the entire Gull River Watershed. Compared to all the other lakes along this watershed it is the most pristine, containing the fewest number of cottages. Its waters empty into, at least, nineteen other lakes in the chain that ends in Balsam Lake of the Trent System. It has an area of 563 hectares with a drainage basin of about 74 km² feeding it. It has a lake trout population that seems to have some small degree of success in natural reproduction. However, over the years it has been annually stocked for a 'put-and-take' fishery. Since the late 1990s the Percy Lake Ratepayers' Association (PLRA) has been involved with the MNR to assess the viability and natural reproductive success of its lake trout population.

On three separate occasions, over three years, studies were done to see whether the trout were having natural reproduction; two by volunteers of the PLRA and, the last, by a collaboration of the OFAH and MNR. What was involved was people in pairs in boats, late in the evening, using underwater lights to find fish in areas that were deemed to be likely spawning areas, as designated by the MNR. These studies were done during the months of October and early November. Not one pair of spawning lake trout was seen. (In the late 1980s I took part in a similar study on Haliburton Lake and did find several naturally reproducing lake trout.)

As a result of these studies, the MNR produced a document called the 'Technical Report on Lake Trout Spawning Activities on Percy Lake 2002'. It is a comprehensive report showing the results of the spawning fish count performed by OFAH and MNR members in the fall of 2002. It also includes pictures and graphics of the spawning sites when the surveys were performed. (I believe that the TSW has a copy of this report.) What these pictures show is that the majority of available spawning areas in the lake are 'high and dry' in the spawning time (Oct.-Nov.) when the water temperature is about 10°C.

The MNR suggests that the lake level draw-down is too much in the fall.

Other possible reasons for the low count for these spawners are:

- i) the trout spawn at a different time, let's say September
- ii) the trout spawn much deeper

Firstly, since all of the lake trout in nearby lakes spawn in October-November, it stands to reason that Percy Lake's fish should be similar. Besides, the water temperature of 10°C is somewhat consistent for spawning lake trout and this temperature is reached during late October-early November..

Secondly, lake trout in Haliburton Lake, which receives Percy Lake's overflow, are shallow water breeders, as are all of the other nearby lakes. So, deep-water breeding is not likely in Percy Lake. Besides, deep-water substrates tend to be silted over because they are too deep for wave-action cleaning.

Lake trout in general lay their eggs when the water is about 10°C in water that is 2-4 feet deep in a rock rubble that allows the eggs to drop between the spaces and be hidden from scavengers, such as the white sucker and brown bullhead catfish. This rubble needs to be clean so that the eggs are well-aerated and deep enough so they don't freeze over winter. Constant wave action tends to clean any silt that might cling to the rocks for a few feet below the surface. One of the problems with fluctuating lake levels is that the substrate (bottom composition) deeper down tends to get covered in silt. That is to say the spaces between the rocks get filled with silt and have little space for the eggs to enter. When the lake level is lowered it is this silted layer that is now exposed and into which the fish must try to spawn. In the case of Percy Lake, most of the areas with good aerated substrate is unavailable for these fish. The fish have fewer spawning grounds and those that do exist are of poor quality.

I have read and heard it repeated that part of the TSW's mandate is to cooperate with the MNR regarding the natural environment. In the case of Percy Lake this has not been done. The MNR made a presentation to the TSW within the last two years to moderate the lake level with spawning lake trout in mind. This was not done. Why? It seems to me that, since Percy Lake is **the** headwater lake of the Gull River System and that it is the most pristine that it should, at the very least, boast a naturally reproducing lake trout population. Especially

since Big Bob and Kushog lakes already have their water levels moderated for lake spawning, as requested by the MNR. Percy Lake has the evidence indicating that the fall draw-down is exposing the lake trout spawning beds, as is shown in the aforementioned Technical Report.

The Percy Lake Ratepayers' Association would like the TSW to lower the lake level no more than one metre to allow for the natural fall spawning of its lake trout. A petition to this effect was presented to the MNR from the PLRA two years ago and this was also passed along to the TSW, I believe.