

Redstone Lake

(Geographic Township of Guilford)

Lake Characteristics

Redstone Lake has a large surface area of 1194 ha. Max depth of 82.4 m, and a mean depth of 21.9 m. These waters have alkalinity and hardness values characteristic of a soft-water, poorly buffered, Precambrian Shield Lake. The trophic status of the waterbody, as identified by a series of water quality reports over the years, would suggest an oligotrophic or unenriched lake with excellent deep-water habitat for cold water fish species. At all depths, the lake water is well oxygenated all year round and this has contributed to optimal conditions for growth and recruitment of its' highly valued lake trout population.

Fish Species Present - lake trout, lake whitefish, round whitefish, lake herring?, brown bullhead, burbot, yellow perch, small mouth bass, largemouth bass, longnose sucker, common white sucker, rock bass, and a wide variety of minnow species.

MNR File Records

Original lake survey work was conducted in 1967 and in 1977 the Ministry's of the Environment and Natural Resources (MNR) collaborated on a detailed water quality survey for the lake. Over the past two decades numerous water quality profiles have been collected on Redstone as part of our regular fisheries assessment program. In addition:

- MNR staff completed netting surveys on Redstone Lake in 1967, 1970, 1980 (fish collected for contaminant sampling), 1986, 87 and from 1994 to 96.
- Critical habitat mapping was completed in 1991.
- Creel census reports were documented periodically during the 60's, 70's and 80's. The last recorded winter creel was completed in 1989.
- Extensive lake trout spawning surveys have been carried out over the years beginning with Lewies and Simpson (1968– 1972). Staff from the Minden MNR office recorded many spawning observations from 1983 to 2003. Detailed file reports were written in 1989, 1998 and 2003 documenting work completed in these years.
- Through our Community Fisheries Involvement Program there have been a number of cooperative habitat and monitoring projects with the Redstone Lake Cottagers' Association. In particular, association members have been instrumental in the successful rehabilitation of a number of lake trout spawning shoals on the lake from 1988 to 1990.
- Since 2003 research work on Redstone Lake has been coordinated through a team of folks affiliated with the Haliburton Lake Trout Project (HLTP) - a community-based partnership program involving volunteers and professionals from MNR, Haliburton Highlands Outdoors Association (HHOA) and the Ontario Federation of Anglers and Hunters. Field studies have involved egg collections, tagging, fall spawning assessment, and collection of lake trout tissues for genetic analyses.

Stocking History

In most lakes in Haliburton County lake trout stocking was suspended in 1996. This was because of Provincial initiatives to protect natural reproducing lake trout lakes from over harvest and from the potential negative impacts of stocking non-indigenous lake trout strains on top of natural/native populations. The present genetic profile of lake trout in Redstone Lake shows that there has been virtually no contribution of hatchery reared genes to the existing population. In fact, the 1000's of lake trout stocked in Redstone over the years have not survived very well or contributed significantly to the fishery. Poor survival of stocked non-native lake trout strains have been experienced on other Haliburton County lakes. This is particularly evident on lakes where the natural population is strong and where juvenile recruitment is greatly enhanced by high quality deep water refuge areas. Under these conditions, introduced non-native strains do not compete well with the natural population.

In 2007 and 2008 lake trout were once again stocked in Redstone Lake as part of a research study to document the contribution native fish will make when stocked back into their home waterbody. Redstone progeny from prior egg collections in 2005 and 2006 were used for these stockings. These are considered to be special stocking events and the return of these fish back to the parent lake will be monitored closely with the cooperation of dedicated anglers from across the region.

The Redstone Lake Cottagers' Association is encouraged to become directly involved in fisheries work planned by the MNR for the lake. There will be excellent opportunities in future netting and creel studies to follow the growth and survival of these clipped fish in the natural population; along with previously marked fish that were tagged during recent egg collection efforts.

Redstone Lake

Year	Species	*Age	Number	**Clip	
1921	<i>Brook Trout</i>	F	5000		
1924	Lake Trout	F	10,000		
1932	<i>Brook Trout</i>	Fg	10,000		
1936 - 1960	Lake Trout	Fg, Y	167,500		
1961	Lake Trout	Fg	2000		
1961	Lake Trout	Y	1800		
1962	Lake Trout	Y	2000		
1963	Lake Trout	Y	1600		
1964	Lake Trout	Y	1375		
1966	Lake Trout	Y	2100		
1968	Lake Trout	Y	3500	AD	
Stock Origin					
...Redstone	2007	Lake Trout	SA	1068	RV
...Redstone	2008	Lake Trout	Y	2500	LV

Little Redstone Lake

Year	Species	*Age	Number	**Clip
1949	Lake Trout	Fg	1000	
1950	Lake Trout	Fg	1000	
1957	<i>Brook Trout</i>	Y	2000	
1958	<i>Brook Trout</i>	Y	2500	
1976	Lake Trout	Y	2400	RP
1981	Lake Trout	Y	2000	RP

*...SA (sub-adult), Y (yearlings), Fg (fingerlings), F (fry)

**...AD (adipose), RV (right ventral), LV (left ventral) and RP (right pectoral)

Summary and Management Recommendations

Redstone Lake supports a genetically unique, wild, self sustaining lake trout population which should be afforded a high degree of protection. Based on past creel information it is apparent that harvest levels for this species, particularly in the winter, are not indicative of overexploitation. However, an open water creel has not been done on this lake for some time. Up-to-date fisheries information on the state of the entire fish community is needed along with future options to monitor, regulate and ultimately protect the fishery.

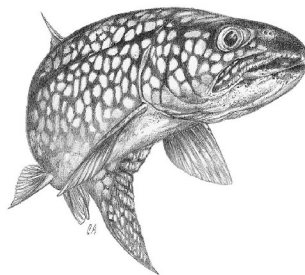
Over the past ten years the Haliburton Lake Trout Project has designed and implemented many studies in Haliburton County. For example, extensive spawning observations on Redstone Lake and Halls Lake (Stanhope Twp.) have shown that these two waterbodies exhibit healthy lake trout spawning populations, many year classes represented, with large numbers of fish. These two natural populations “*Haliburton Gold*” are paramount to our understanding of lake trout genetics and life history characteristics for all native populations across South-central Ontario. For local restoration and rehabilitation efforts we are very fortunate to have good populations in these waters that can be used as donors for our research lakes. The objectives of the science and research work and associated fish culture and stocking priorities, are outlined in detail in HLTP strategy documents (2005-2010).

Future Studies - The Ministry of Natural Resources will begin implementing a broad-scale fisheries monitoring program across Ontario this spring (see **Broad-scale monitoring fact sheet for more information**). Redstone Lake will be surveyed in 2009 and information will be collected on water quality, fishing activity and relative fish abundance and diversity. The overall status of the fisheries resource will be evaluated in comparison to 100’s of lakes across the Province. This monitoring program will provide fisheries managers and local communities with updated information on the health of our fish communities. The preliminary findings associated with survey work on Redstone will be made available to Association members, seasonal and permanent residents of the lake and all anglers visiting these waters. Together, we will make more effective decisions on future management strategies for our lakes.

Dedicated Angler Program - Volunteer angler diary information and catch records are vital to our continued assessment and understanding of the present fishery i.e. relative lake trout abundance, angler directed effort and catch/harvest information for this species. Anglers are encouraged to keep a record of their catches and provide this information to MNR for further review and filing.

References

1. Broad-scale Fisheries Monitoring. 2008. Various communication products i.e. fact sheets, presentation material.
2. Casselman J.M. 1999. Lake trout biology and productivity, Haliburton Gold. MNR File Report. 10pp.
3. McLeish D.A. 1993. Status of Lake Trout Fisheries in the Haliburton Highlands and Minden South Areas. OMNR File Report.
4. Ministry of Natural Resources. Minden File Records for Redstone Lake Guilford Twp. (fish stocking and assessment records, communications etc...various years)
5. MNR, OFAH, HHOA. Haliburton Lake Trout Project Strategy Document. 2005-2010. 26pp.



Minden File Information prepared for Redstone Lake Cottagers' Association Annual General Meeting, July 11th, 2009. If you have any questions concerning the information provided or would like to discuss future fisheries management objectives for Redstone Lake please call:

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