Fall Walleye Index Netting Summary
Leonard Lake
2001

Stephen Scholten
Ontario Ministry of Natural Resources
Bracebridge, Ontario

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A Fall Walleye Index Netting (FWIN) project was completed on Leonard Lake in 2001. Leonard Lake was randomly selected to be sampled as part of the Southern Region walleye review project. Walleye are not native to the lake; they were introduced through stocking in the 1940's, 50's and 60's. The only other previous study on the lake was a lake survey conducted in 1976.

The standard FWIN protocol was followed. Netting occurred on October 13 -15, 2001. A total of twelve sets were completed. Only three walleye were caught. Large numbers of lake whitefish and rock bass and moderate number of smallmouth bass were also caught.

The abundance of walleye in Leonard Lake is very low. The lake does not provide good habitat for a self-sustaining walleye population. The small lake size, moderately high depth, lack of extensive shallow areas and high water clarity in combination provide very limited habitat. The walleye that were caught were all larger adults. It is typical in a lake of this type for reproduction to be poor and sporadic.

The abundance of lake whitefish is high. The previous lake survey in 1976 found this as well. The population is comprised of a wide range of ages, indicating healthy regular reproduction. Growth essentially stops by about age 8; probably due to competition for food caused by the high density and the energetic demands of reproduction.

This survey represents the first documentation of rock bass in the lake. Their origin is not known. They were probably accidentally introduced. They are dominating the near shore area and probably competing with smallmouth bass. Smallmouth bass are also not native, but were intentional introduced in the 1940's.

Rainbow trout have been stocked regularly in Leonard Lake. None were caught in the survey, but they tend not to be very vulnerable to gill nets. Anecdotally, rainbows do survive well and are targeted by anglers.

In summary, Leonard Lake supports a marginal walleye population that has minimal potential for improvement. Whitefish dominate the deeper offshore waters of the lake. There are few high density whitefish lakes in the district; the lake should be managed to maintain this population. The stocked rainbow trout probably do not interfere with the whitefish greatly. Other species that could potentially be stocked, including splake and walleye, are more likely to interact with the whitefish; therefore, continued stocking of rainbow trout is recommended.

Table 1 FWIN catch summary, Leonard Lake, 2001.

Lake Whitefish	94
Brown Bullhead	3
Rock Bass	63
Smallmouth Bass	26
Walleye	3

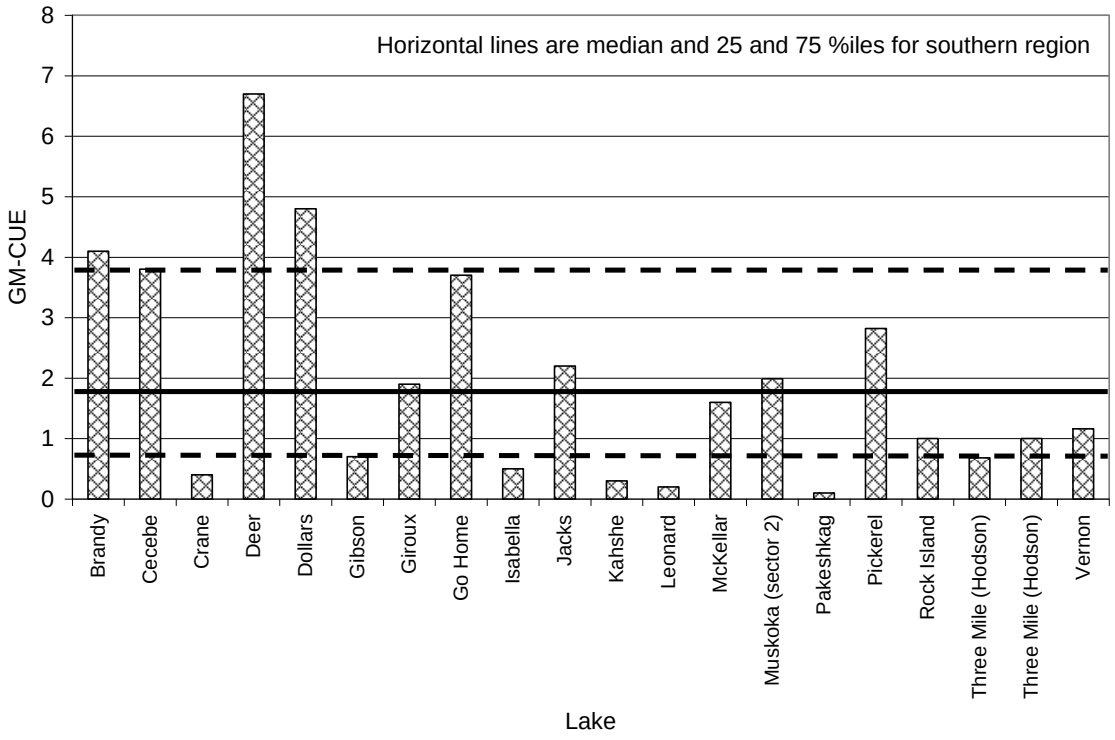


Figure 1 Comparison of walleye catch rates for FWIN's conducted in Parry Sound District, 2001-2007.

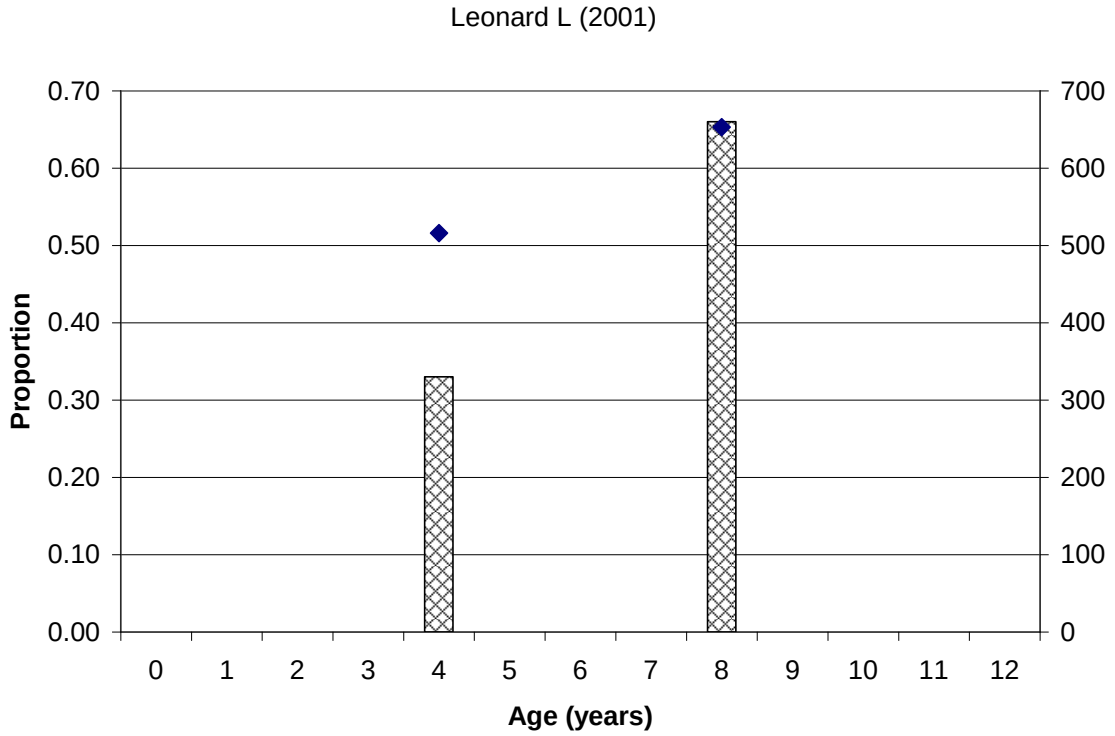


Figure 2 Walleye age composition (bars) and size-at-age (points), Leonard Lake FWIN, 2001.

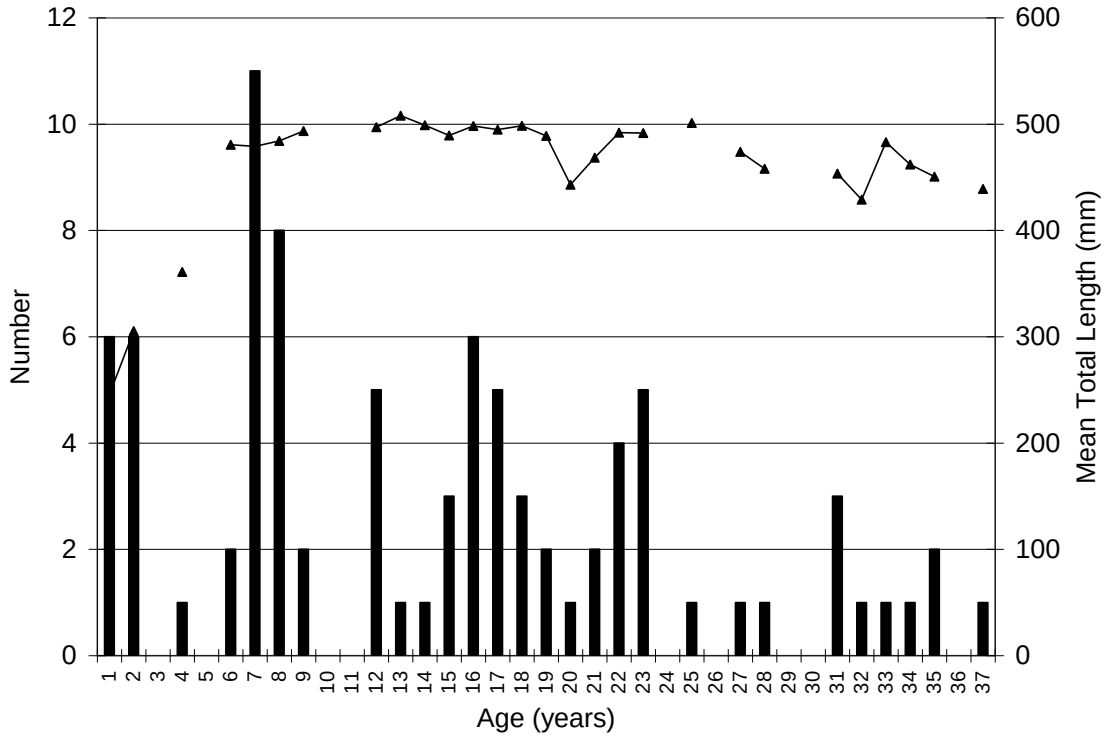


Figure 3 Lake whitefish age composition (bars) and size-at-age (points), Leonard Lake FWIN, 2001.