

# COLDWATER TASK GROUP EXECUTIVE SUMMARY REPORT MARCH 2011



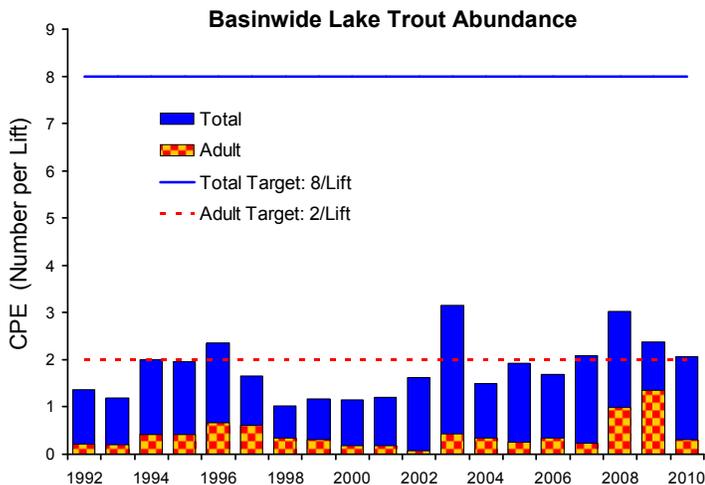
## Introduction

This year's Lake Erie Committee (LEC) Coldwater Task Group (CWTG) has produced an Executive Summary Report encapsulating information from the CWTG annual report. The complete report is available from the GLFC's Lake Erie Committee Coldwater Task Group website at <http://www.glfc.org/lakecom/lec/CWTG.htm>, or upon request from an LEC, Standing Technical Committee (STC), or CWTG representative.

Seven charges were addressed by the CWTG during 2010-2011: (1) Lake trout assessment in the eastern basin; (2) Lake whitefish fishery assessment and population biology; (3) Burbot fishery assessment and population biology; (4) Participation in sea lamprey assessment and control in the Lake Erie watershed; (5) Electronic database maintenance of Lake Erie salmonid stocking information; (6) Steelhead fishery assessment and population biology, and (7) Development of a cisco management plan.

## Lake Trout

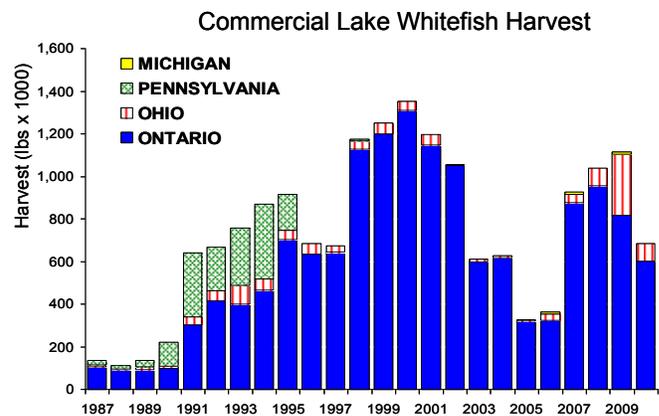
A total of 338 lake trout were collected in 93 lifts across the eastern basin of Lake Erie in 2010. Young cohorts (ages 1-4) dominated catches with lake trout ages 9 and older only sporadically caught. Basin-wide lake trout abundance declined for the second consecutive year in 2010 and remains well below the rehabilitation target of 8.0 fish/lift. Adult (age 5+) abundance declined sharply (77%) in 2010 and also remains well below target. Recent estimates indicate very low rates of adult survival. Klondike and Finger Lakes strain lake trout comprise the majority of the population. Successful natural reproduction has yet to be documented in Lake Erie despite more than 30 years of restoration efforts.



## Whitefish

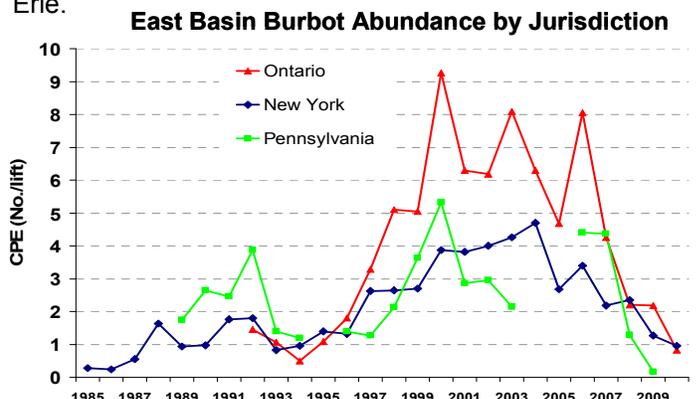
Lake whitefish harvest in 2010 was 683,567 pounds, distributed among Ontario (88%), Ohio (12%), Michigan (<1%) and Pennsylvania (<1%) commercial fisheries. The 2003 year class (age 7) dominated the harvest and population age structure in 2010. Ages present in the 2010 population ranged from 3 to 21 with no evidence of young-of-the-year or yearlings in surveys lakewide. With weak to moderate recruitment occurring, abundance is declining. Some recruitment of age 4 and 5 whitefish (2007, 2006 year classes) to fisheries can be expected in 2011, but these year classes may be moderate at best. Fisheries in 2011 will continue to rely on the 2003 year class followed by the 2005 cohort with some contribution from other weaker year classes. In 2010, mean condition factor of mature (ages 4+) whitefish did increase compared

to 2009. For females, mean condition was above the historic average, while mean condition factor of males was near or above the historic average, depending on the agency data source.



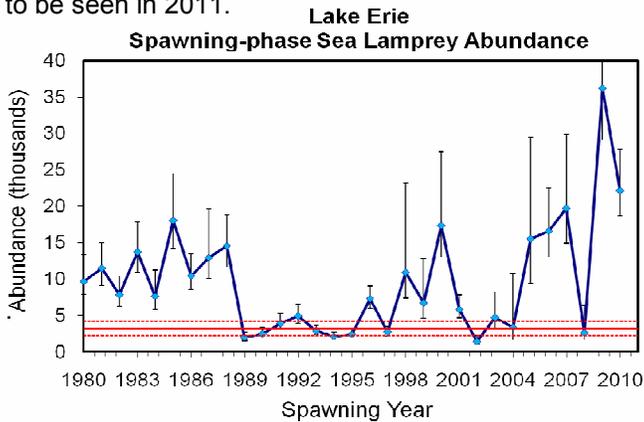
## Burbot

Total commercial harvest of burbot in Lake Erie during 2010 was 3,186 pounds, a 33% decrease from 2009. Burbot abundance and biomass indices from annual coldwater gillnet assessments continued to decline throughout the east basin after time-series maxima were observed during the early- to mid-2000s. 2010 burbot abundance measures were at or near the lowest level seen in agency assessment programs since the mid-80s. Declining catch rates of burbot in assessment surveys, combined with increasing mean age of adults and persistent low recruitment, signal an impending population collapse. Round gobies and rainbow smelt continue to be the dominant prey items in burbot diets in eastern Lake Erie.



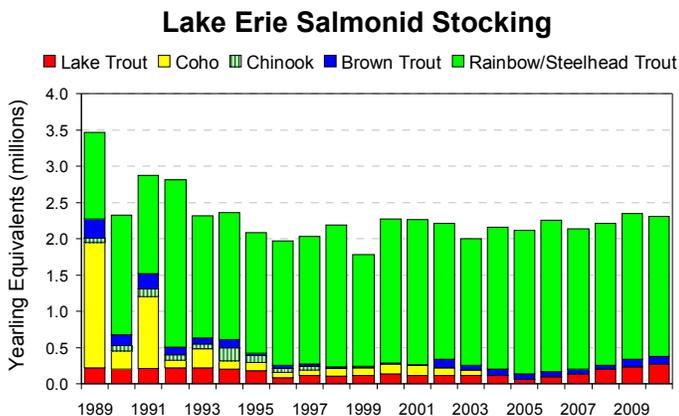
## Sea Lamprey

The A1-A3 wounding rate on lake trout over 532 mm was 12.8 wounds per 100 fish in 2010. This was a 33% decline from the 2009 wounding rate of 19.3 wounds per 100 fish. Despite the decline, the wounding rate is still over two times higher than the target rate of five wounds per 100 fish. Wounding rates have been above target for 15 of the past 16 years. Large lake trout over 736 mm continue to receive the highest percentage of the fresh wounds, but high wounding rates were found in all size categories greater than 532mm. A4 wounding rates slightly increased in 2010 to 55.8 wounds/100 fish, the third highest wounding rate in the 25-year time series. A4 wounding rates on lake trout over 736 mm remain very high (200 wounds/100 fish). The estimated number of spawning-phase sea lampreys decreased from a time-series high of 35,635 in 2009 to 22,179 in 2010. However, this is the second highest population estimate in the time-series. A two-year experiment of back-to-back lampricide treatments in the nine major sea lamprey producing streams began in spring 2008. These same streams were treated again in fall 2009 with treatment results expected to be seen in 2011.



## Lake Erie Salmonid Stocking

A total of 2,304,095 salmonids were stocked in Lake Erie in 2010. This was a 2% decrease in the number of yearling salmonids stocked compared to 2009, but near the long-term average from 1989-2009. By species, there were 272,939 yearling lake trout stocked in New York, Pennsylvania, and Ontario waters (the highest number of lake trout stocked in the 31-year time series); 102,127 brown trout stocked in New York and Pennsylvania waters, and a total of 1,929,029 steelhead/rainbow trout stocked by all five jurisdictions.



## Steelhead

All agencies stocked yearling steelhead/rainbow trout in 2010. A summary of rainbow trout/steelhead stocking in Lake Erie by jurisdictional waters for 2010 is as follows: Pennsylvania (1,085,406; 56%), Ohio (433,446; 22%), New York (310,194; 16%), Michigan (66,536; 3%) and Ontario (33,447; 2%). Overall steelhead stocking numbers (1.929 million in 2010) represented a 6% increase above the long-term average but a 4% decrease from 2009. Annual stocking numbers have been consistently in the 1.7-2.0 million range since 1993.

The summer open lake fishery for steelhead was again evaluated by Ohio, Pennsylvania and New York. Open lake harvest was estimated at 9,178 fish, summed for all reporting agencies. This was a 5% increase over the 2009 harvest and the second consecutive increase since a record low harvest (5,431 fish) in 2008. Open lake steelhead harvest increased in both New York and Pennsylvania waters, but decreased in Ohio and Michigan waters. Overall harvest was 60% below the ten-year average. Catch rates in the open water fishery were mixed as well in 2010 and were less than half of the long-term average.

Based upon creel surveys, the majority (>90%) of the fishery effort targeting steelhead occurs in the tributaries from fall through spring. Results from the second consecutive year of creel survey in Ohio tributaries were similar to the first year with catch rates of 0.35 fish/hour with an estimated total effort of 283,107 angler-hours. Harvest rates remained around 10%. Catch rates by tributary anglers in the New York cooperative diary program declined in 2009 to 0.69 fish/hour, but remained well above the long-term average of 0.47 fish/hour.

## Cisco

Cisco are considered extirpated in Lake Erie, however, commercial fishermen report them periodically. Captures have been reported in 9 of the last 14 years, with 4 reports in 2010. Genetic testing of recent catches found them to be most related to the historic Lake Erie stock, indicating the possibility that a remnant Lake Erie stock still exists.

Preparation of a cisco management plan began in 2007 with the goal of rehabilitating cisco in Lake Erie. In recognizing that stocking is a possible management decision, disease testing of potential brood stock was started. Lake Superior and Lake Ontario populations were tested, and a need identified to investigate Lake Huron and Lake Michigan stocks as a brood-stock source.

Several outstanding issues have moved the CWTG into future broader consultation with cisco experts around the Great Lakes. These include methods of investigation into the extant population size, genetics and potential constraints, implications of stocking and brood stock selection. The final draft is expected to be completed in 2011.