

# COLDWATER TASK GROUP EXECUTIVE SUMMARY REPORT MARCH 2010



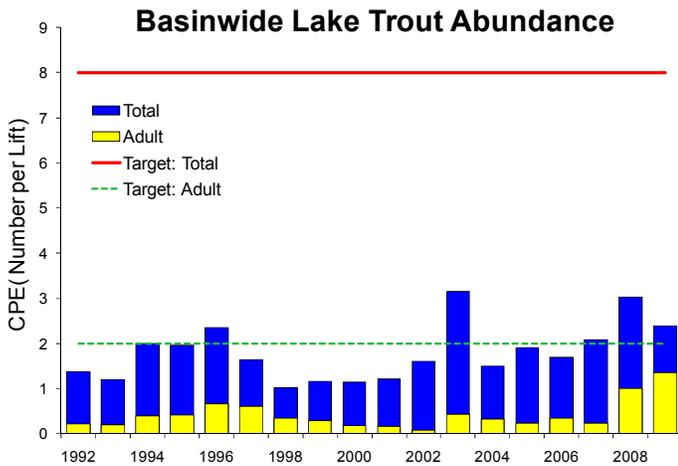
## Introduction

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 2009-2010: (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

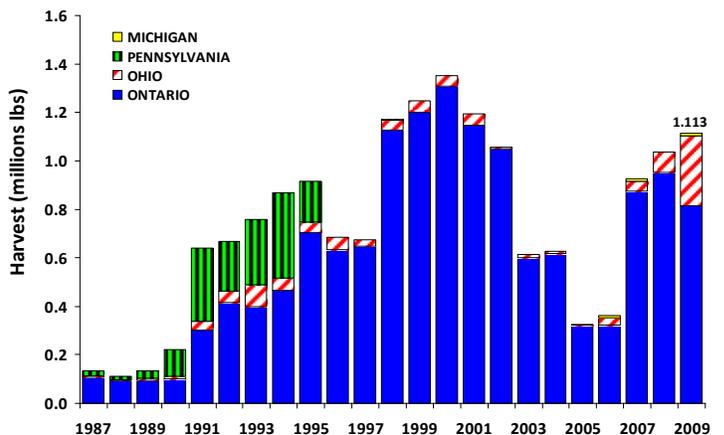
A total of 557 lake trout were collected in 129 lifts across the east basin of Lake Erie in 2009. Young cohorts (ages 2-5) dominated catches with lake trout ages 9 and older only sporadically caught. Basin-wide lake trout abundance declined in 2009 and remains well below the rehabilitation target of 8.0 fish/lift. Adult (age 5+) abundance increased to its highest level in the time series, but also remains below target. Klondike and Finger Lakes strain lake trout comprise the majority of the population. Klondike cohorts were smaller in lengths- and weights-at-age compared to lean lake trout strains.



## Whitefish

Lake whitefish harvest in 2009 was 1,113,488 pounds, distributed among Ontario (73%), Ohio (26%), Michigan (15%) and Pennsylvania (<1%) commercial fisheries. Ohio's harvest of 288,294 pounds was the highest in recent history, since the fishery was reopened in 1987. The 2003 year class (age 6) dominated the harvest and the population age structure in 2009. Ages present in the 2009 population ranged from 2 to 19 with no evidence of young-of-the-year or yearlings. With weak to moderate recruitment occurring, abundance appears to be declining. Fisheries in 2010 will continue to rely on the 2003 year class (age 7) with some contribution from the 2004 (age 6) and 2005 (age 5) cohorts and older lake whitefish. In 2009, female condition remained below the long term average, and the diet of benthic invertebrates was diverse.

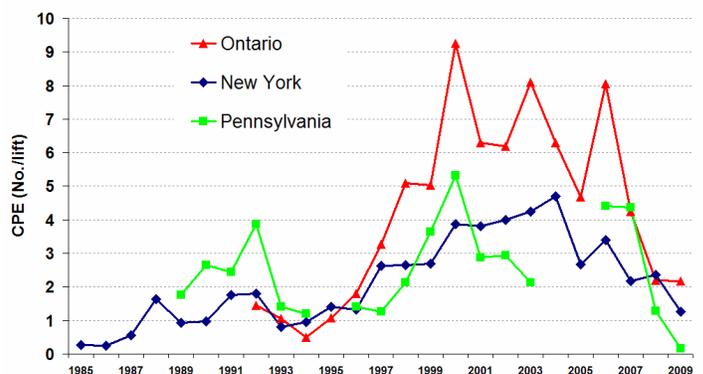
## Commercial Lake Whitefish Harvest



## Burbot

Total commercial harvest of burbot in Lake Erie during 2009 was 4,784 pounds, a 2.8-fold increase from the recent time series low observed in 2008. Abundance and biomass of burbot indices from annual coldwater gillnet assessments continued to decline or remained well below average throughout the east basin, following peaks in 2000 in Pennsylvania and Ontario and in 2004 in New York. Mean size (length and weight) and age of burbot has increased since the late 1990s, showing a recent trend of poor recruitment. Rainbow smelt and round gobies continue to be the dominant prey items in burbot diets in eastern Lake Erie.

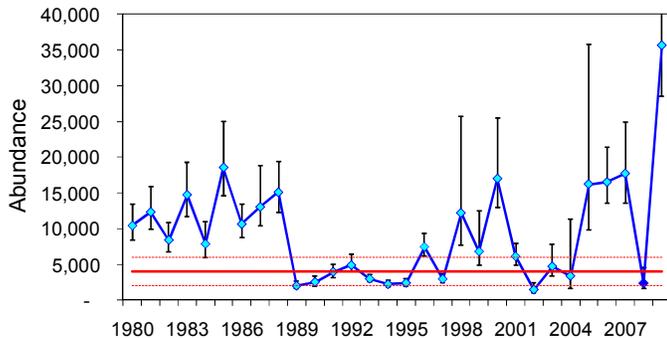
## East Basin Burbot Abundance by Jurisdiction



## Sea Lamprey

The A1-A3 wounding rate on lake trout over 532 mm was 19.3 wounds per 100 fish in 2009. This was over three times the 2008 wounding rate (6.2 wounds/100 fish) and the highest wounding rate since 1998. The wounding rate is nearly four times the target rate of 5 wounds/100 fish. Wounding rates have been above target for 14 of the past 15 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 also increased in 2009 to 51.5 wounds/100 fish, the third highest wounding rate in the 25-year time series. The estimated number of spawning-phase sea lampreys increased from 2,400 in 2008 to 35,635 in 2009. 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 2010.

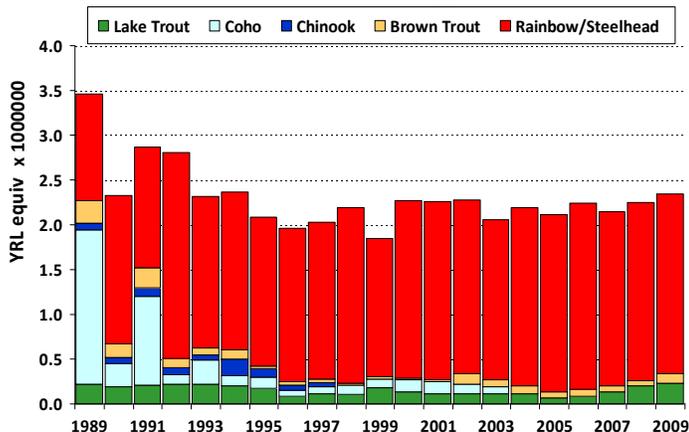
### Spawning Sea Lamprey Abundance



## Lake Erie Salmonid Stocking

A total of 2,343,897 yearling-equivalent salmonids were stocked in Lake Erie in 2009. This was a 4% increase in the number of yearling salmonids stocked compared to 2008. By species, there were 229,842 lake trout stocked in New York, Pennsylvania and Ontario waters (the highest amount stocked in the 30-year time series); 102,701 brown trout stocked in New York and Pennsylvania waters (a 90% increase), and a total of 2,011,354 steelhead/rainbow trout stocked by all five jurisdictions (a 1% increase).

### Lake Erie Salmonid Stocking 1989-2009



## Steelhead

All agencies stocked yearling rainbow trout/steelhead in 2009. Summarizing rainbow trout/steelhead stocked in Lake Erie by jurisdictional waters for 2009: Pennsylvania (1,186,825; 59%), Ohio (458,823; 23%), New York (276,720; 14%), Michigan (70,376; 3%) and Ontario (18,610; 1%). Overall, steelhead stocking numbers (2.011 million in 2009) were 11% above the long-term (1989-2008) average of 1.813 million yearlings. Stockings 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 8,765, summed for all reporting agencies. Open lake steelhead harvest increased in Ohio and Michigan waters, but declined in New York and Pennsylvania waters compared to 2008. Similar to harvest estimates from the open lake boat fishery, catch rate statistics were mixed across the lake. Relative to historical catch rates, 2009 CUE's were below average in all jurisdictional waters in 2009, but the change was most pronounced in Pennsylvania. A combined interagency catch rate for 2009 of 0.09 steelhead per angler hour was below the combined long-term average of 0.12 fish per angler hour.

Catch rates for Ontario open-water angler diarists in 2009, expressed as fish per rod-hour, were lower than 2008 values in the west central and east basins. Catch rates for 2009 were near the long-term mean in the west central, above the long-term mean in the east central and well below the long-term mean in the east basin. Based on open lake creel surveys and contemporary tributary creel surveys in New York, Pennsylvania and Ohio, the majority (>90%) of the fishery effort for steelhead remains in the tributaries, pier and shore access areas from fall through spring. Recent tributary creel surveys in Ohio showed significant increases in effort, harvest, catch rates, and legal-release rates compared to historic 1984 steelhead tributary creel survey data

## Cisco

Cisco are considered extirpated in Lake Erie; however, commercial fishermen report them periodically. In 2009, there were no reports of cisco from commercial fishery, sport fishery or agency assessments. 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.

In recognizing that stocking is a possible management decision, disease testing of potential broodstock was started. Positive results for BKD from Lake Superior bloaters have eliminated this lake as a potential source. Ciscos collected from eastern Lake Ontario from 2006-2009 were negative for all diseases tested, but currently the cisco population there is low. There is a need to investigate the possibility of using Lake Huron and Lake Michigan stocks as a source of broodstock.

Preparation of a cisco management plan began in 2007 with the goal of rehabilitating cisco in Lake Erie. The final draft is expected to be completed in 2010.