

# COLDWATER TASK GROUP EXECUTIVE SUMMARY REPORT MARCH 2013



## 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 2012-2013: (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) Maintenance of an electronic database 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 677 lake trout were collected in 170 lifts across the eastern basin of Lake Erie in 2012. High lake trout catches were recorded in New York surveys but average catches were observed in both Ontario and Pennsylvania surveys. Young cohorts (ages 1-5) continue to dominate the catches with lake trout ages 10 and older only sporadically caught. Basin-wide lake trout abundance (weighted by area) was the fourth highest value in the time series, but remains below the rehabilitation target of 8.0 fish/lift. Adult (ages 5+) abundance decreased in 2012 and remains well below target. Recent estimates indicate very low rates of adult survival. Klondike, Finger Lakes, and Lake Champlain strain lake trout comprise the majority of the population. Natural reproduction has not been documented in Lake Erie despite more than 30 years of restoration efforts.

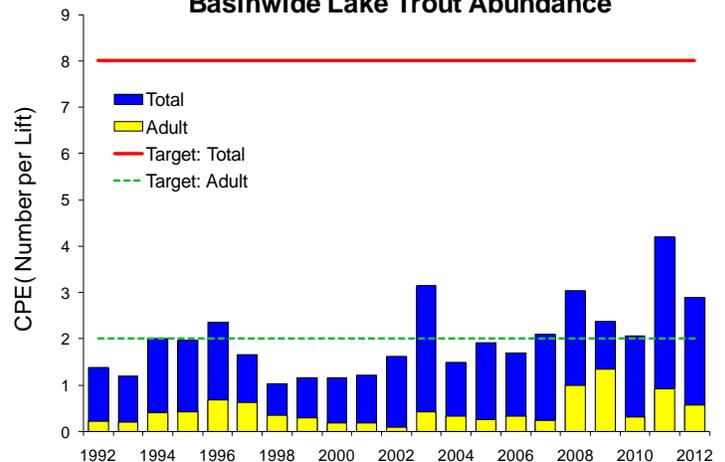
## Lake Whitefish

Lake whitefish harvest in 2012 was 341,374 pounds, distributed among Ontario (63%), Ohio (35%), and Michigan (2%) commercial fisheries. The 2003 year class (age 9) dominated the population age structure in the observed harvest and assessment surveys in 2012. Ages present in the 2012 population ranged from 3 to 24, with no evidence of young-of-the-year or yearling whitefish in assessment surveys lake-wide. With recruitment sparse or absent, population abundance continues to decline. Fisheries in 2013 will continue to rely on the 2003 year class, followed by cohorts from other adjacent year classes. In 2012, mean condition factors of mature female and male whitefish were at or above the historic average.

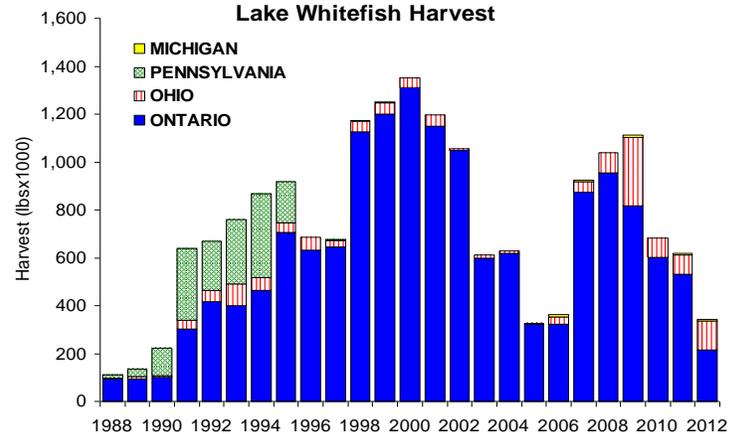
## Burbot

Total commercial harvest of burbot in Lake Erie during 2012 was 1,308 pounds, a 55% decrease from 2011. Burbot abundance and biomass indices from annual coldwater gillnet assessments decreased in 2012, continuing a downward trend observed across east basin areas following time-series maxima during the early- to mid-2000s. Agency catch rates during 2012 ranged from 0.35 (Ontario) to 0.78 (New York) burbot per lift, which are far lower than mean catch rates observed during 2000-2004 peak catches. Burbot catches ranged in age from 4 to 22 years, and 54% were age 13 and older in 2012. Rainbow smelt and round gobies continue to be the dominant prey items in burbot diets in eastern Lake Erie. Continued low catch rates of burbot in assessment surveys, combined with increasing mean age of adults and persistent low recruitment, signal continuing troubles for this population in Lake Erie.

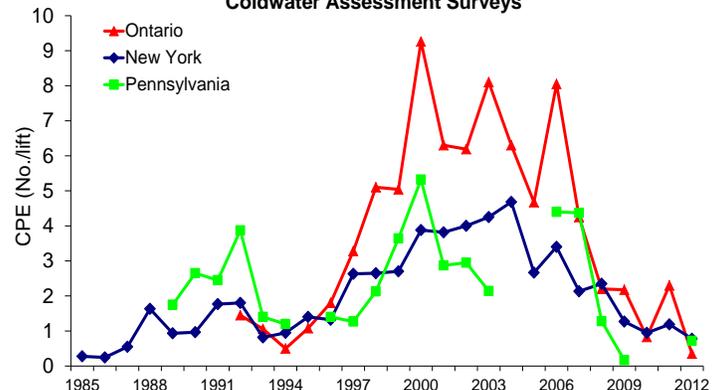
### Basinwide Lake Trout Abundance



### Lake Whitefish Harvest

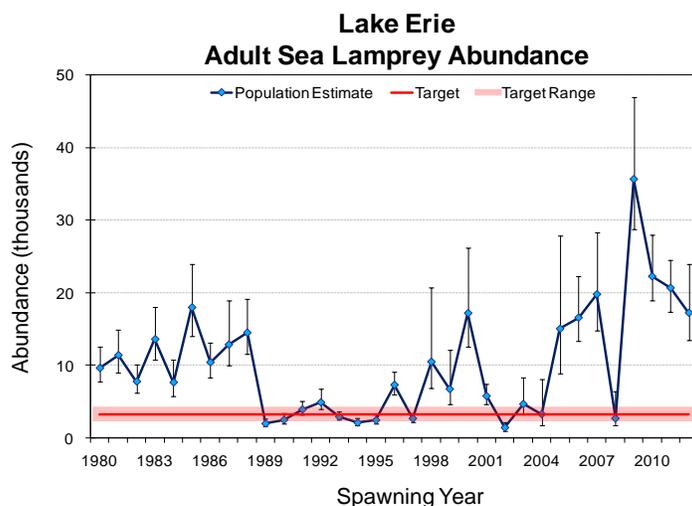


### Burbot Abundance Coldwater Assessment Surveys



## Sea Lamprey

The A1-A3 wounding rate on lake trout over 532 mm was 10.1 wounds per 100 fish in 2012. This was a 23% increase from the 2011 wounding rate of 8.2 wounds per 100 fish and the first increase in wounding rates since 2009. The 2012 wounding rate still exceeds the target rate of five wounds per 100 fish; wounding rates have been above target for 17 of the past 18 years. Large lake trout over 736 mm continue to be the preferred targets for sea lamprey. A1 wounding rates on lake trout were above average and were at their highest rate since 2007. A4 wounding rates decreased in 2012 to 31.6 wounds per 100 fish, the second lowest wounding rate in the past eight years. A4 wounding rates on lake trout over 736 mm remained very high (148 wounds/100 fish). The estimated number of spawning adult sea lampreys decreased from 20,638 in 2011 to 17,211 in 2012. This is the third consecutive decline in the estimated adult sea lamprey population, but abundance remains well above targets. Comprehensive stream evaluations continued in 2012, including extensive surveys of Lake St. Clair and the Detroit River, to determine the source of the untreated Lake Erie population. A mark-recapture study was implemented to determine if juveniles can successfully migrate through Lake St. Clair into Lake Erie, and to quantify the relative contribution of St. Clair River sea lamprey to the Lake Erie adult population.



## Lake Erie Salmonid Stocking

A total of 1,962,516 salmonids were stocked in Lake Erie in 2012. This was a 9% decrease in the number of yearling salmonids stocked compared to 2011 and the long-term average from 1989-2011. Declines were primarily due to temporary reductions in 2012 of lake trout and steelhead/rainbow trout stockings. By species, there were 72,473 yearling-equivalent lake trout stocked in Ontario and Ohio; 101,204 brown trout stocked in New York and Pennsylvania waters, and 1,788,839 steelhead/rainbow trout stocked in all five jurisdictional waters.

## Steelhead

All agencies stocked yearling steelhead/rainbow trout in 2012. The summary of steelhead stocking in Lake Erie by jurisdictional waters for 2012 is: Pennsylvania (1,018,101; 57%), Ohio (425,188; 24%), New York (260,000; 15%), Michigan (64,500; 4%) and Ontario (21,050; 1%). Steelhead stocking in 2012 (1.789 million) represented a 2% increase from 2011, but was 2% below the long-term average. Annual stocking numbers have been consistently in the 1.7-2.0 million range since 1993.

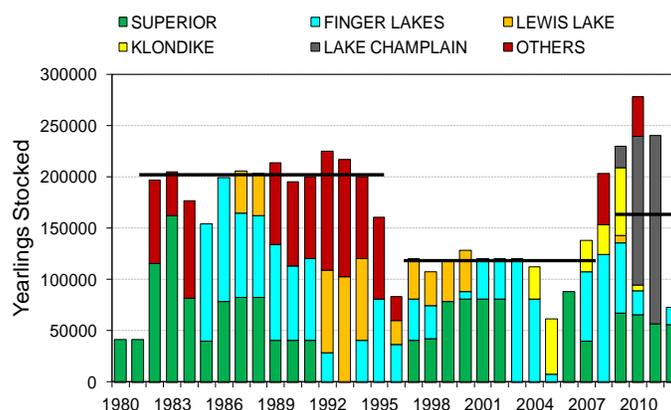
The summer open lake fishery for steelhead was again evaluated by Ohio, Pennsylvania and New York. Open lake harvest was estimated at 10,165 steelhead: Ohio, 6,865; Pennsylvania, 2,917; New York, 374; and Michigan, 9. Overall, this harvest was a 127% increase from the 2011 harvest, but 67% below the average harvest from 1999-2011. Open lake steelhead harvest increased in all jurisdictions from 2012, but was not assessed in a general creel survey in Ontario waters of Lake Erie. Catch rates in the open water fishery were lower in 2012 with the exception of Pennsylvania. Based upon creel surveys, the majority (>90%) of the fishery effort targeting steelhead occurs in the tributaries from fall through spring. Catch rates by tributary anglers in the New York cooperative diary program increased to 0.68 fish/hour in 2012, but in a general New York tributary angler survey, overall catch rate was 0.35 fish/hour.

## Cisco

Cisco, considered extirpated in Lake Erie, have been reported in small numbers (1-6) in 11 of the past 15 years by Ontario commercial fishers; one age-3 cisco was captured in 2012. None were captured in 2012 in assessment gear.

Preparation of a cisco management plan began in fall 2007; however, after several drafts, the exercise has stalled due to several key outstanding issues – mainly if a remnant stock still exists in Lake Erie, the abundance of the current population, and if and how to proceed with stocking – that remain unresolved. With these uncertainties, the task group was unable to define a plan to re-establish cisco in Lake Erie. Within review of the management plan, it was decided that the current plan be reworked into an Impediments document and presented to the LEC so these issues can be resolved.

Lake Erie Lake Trout Stocking, 1980-2012



Lake Erie Salmonid Stocking, 1989-2012

