# COLDWATER TASK GROUP EXECUTIVE SUMMARY REPORT MARCH 2014



#### 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 Great Lakes Fishery Commission's Lake Erie Committee Coldwater Task Group website at <a href="http://www.glfc.org/lakecom/lec/CWTG.htm">http://www.glfc.org/lakecom/lec/CWTG.htm</a>, or upon request from an LEC, Standing Technical Committee (STC), or CWTG representative.

Seven charges were addressed by the CWTG during 2013-2014: (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 impediments document.

## Lake Trout

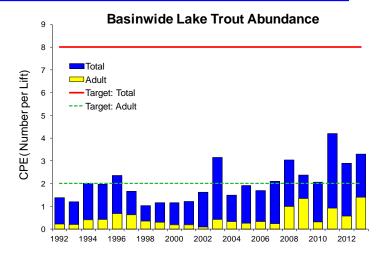
A total of 720 Lake Trout were collected in 149 lifts across the eastern basin of Lake Erie in 2013. High Lake Trout catches were recorded in all jurisdictions relative to their time series. Young cohorts (ages 1-5) continue to dominate the catches with Lake Trout ages 10 and older only sporadically caught. Basin-wide Lake Trout abundance (weighted by area) was the second highest value in the time series, but remains well below the rehabilitation target of 8.0 fish/lift. Adult (ages 5+) abundance index increased in 2013 to a time series high but remains 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

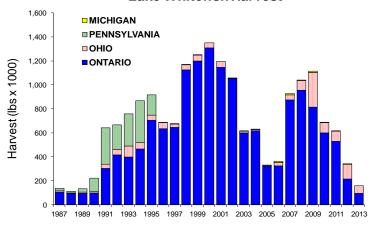
Lake Whitefish harvest in 2013 was 157,919 pounds, distributed exclusively between Ontario (60%) and Ohio (40%). The harvest in 2013 was comparable to low levels observed during the 1980s before recovery. The 2003 year class (age 10) comprised the largest fraction of Lake Whitefish observed in fisheries and assessment surveys in 2013. Lake Whitefish sampled in fisheries and surveys ranged from ages 3 to 26, while young-of-the-year and yearling Lake Whitefish were present as by-catch in commercial trawls that seek Rainbow Smelt. Continued poor recruitment elevates the need for reduced fishing mortality and habitat improvement. Some indicators in 2013 suggest that mean condition factors of male and female Lake Whitefish have dropped below historic averages.

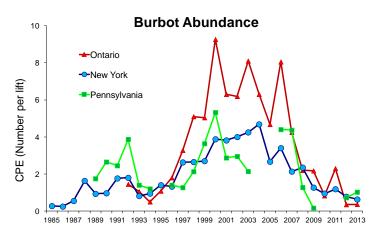
# **Burbot**

Total commercial harvest of Burbot in Lake Erie during 2013 was 1,285 pounds, a 2% decrease from 2012. Burbot abundance and biomass indices from annual coldwater gillnet assessments decreased (NY) or remained at a low level (ON & PA) in 2013, continuing a downward trend since the early- to mid-2000s across east basin areas. Agency catch rates during 2013 averaged 0.36 (Ontario) to 1.03 (Pennsylvania) Burbot per lift, which are about 20 to 3 times lower than mean catch rates observed during 2000-2004, respectively. The Burbot catch ranged in age from 3 to 23 years and 61% were age 13 and older in 2013. Ongoing low catch rates of Burbot in assessment surveys, combined with increasing mean age of adults and persistently low recruitment, signal continuing troubles for this population.



## Lake Whitefish Harvest





#### Sea Lamprey

The A1-A3 wounding rate on Lake Trout over 532 mm was 14.3 wounds per 100 fish in 2013. This was a 42% increase from the 2012 wounding rate and a 73% increase over the past two years. The 2013 wounding rate is nearly three times the target rate of five wounds per 100 fish; wounding rates have been above target for 18 of the past 19 years. Large Lake Trout over 736 mm continue to be the preferred targets for Sea Lamprey; A4 wounding rates on this size group remained very high (164 wounds/100 fish). The estimated number of spawning adult Sea Lamprey (16,641) was similar to the previous year; the five-year average is 22,252, which is nearly seven times the target population. Comprehensive stream evaluations continued in 2013, including extensive surveys of Lake St. Clair and the Detroit River, to determine the source of the Lake Erie population. A

Adult Sea Lamprey Abundance

Target Range — Target Population Estimate

10

1980 1983 1986 1989 1992 1995 1998 2001 2004 2007 2010 2013

Spawning Year

Lake Erie

mark-recapture study initiated in 2012 will determine if juveniles can successfully migrate through Lake St. Clair into Lake Erie, and quantify the relative contribution of St. Clair River Sea Lamprey to the Lake Erie adult population.

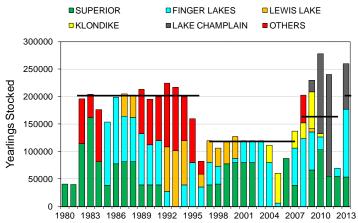
## Lake Erie Salmonid Stocking

A total of 2,216,644 salmonids were stocked in Lake Erie in 2013. This was a 13% increase in the number of yearling salmonids stocked compared to 2012, but was 3% below the long-term average. Increases were primarily from Lake Trout, which had reduced stocking in 2012, and Steelhead. By species, there were 260,040 yearling Lake Trout stocked in all three basins of Lake Erie; 104,116 Brown Trout stocked in New York and Pennsylvania waters, 5,000 domestic Rainbow Trout stocked in New York, and 1,847,488 Steelhead stocked across all five jurisdictional waters.

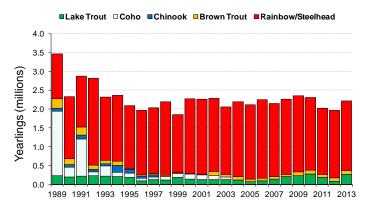
#### Steelhead

All agencies stocked yearling Steelhead in 2013. The summary of Steelhead stocking in Lake Erie by jurisdictional waters for 2013 is: Pennsylvania (1,072,410; 58%), Ohio (455,678; 25%), New York (255,000; 14%), Michigan (62,400; 3%) and Ontario (2,000; <1%). Steelhead stocking in 2013 (1.847 million) represented a 4% increase from 2012 and was near the long-term average. Annual stocking numbers have been consistently in the 1.7-2.0 million fish range since 1993. The summer open lake fishery for Steelhead was again evaluated by U.S. agencies. Open lake harvest was estimated at 5,247 Steelhead: Ohio, 3,337; Pennsylvania, 1,375; New York, 482; and Michigan, 53. Overall, this harvest was a 48% decrease from the 2012 harvest and 82% below the average harvest from 1999-2012. No creel surveys took place in Ontario in 2013; data describing the open lake Steelhead fishery is limited to diary reports. 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 0.85 fish/hour in 2013, but in a general New York tributary angler survey conducted in 2012 the overall catch rate was 0.35 fish/hour.

## Lake Erie Lake Trout Stocking



## Lake Erie Trout and Salmon Stocking



#### 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-5 Cisco was captured in 2013. None were captured in 2013 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.