

Report on 2016 Fish Kill, Lac Courte Oreilles, Sawyer County

Prepared by: The Courte Oreilles Lakes Association (COLA)

In association with: The Lac Courte Oreilles Band of Lake Superior Chippewa
Indians

October 6, 2016

The 2016 fish kill on Lac Courte Oreilles (LCO) ([Attachment 1](#)) is the largest cold-water fish kill ever documented in LCO. This Report, in two parts, documents: 1) the duration, extent and magnitude of the fish kill based upon witness reports and photos received from eye witnesses ([Attachment 2 and Attachment 3](#)) to events as they unfolded; and 2) an assessment of the cause(s) of the fish mortality based upon review of LCO water quality monitoring data collected by the Lac Courte Oreilles Conservation Department (LCOCD) before, during and after the 2016 fish kill event.

Part 1: Duration, Extent, and Magnitude of the 2016 Fish Kill on LCO

Background: COLA became aware of the 2016 fish kill on August 31 thru a phone call from LCOCD notifying COLA that while doing routine water sampling on August 26 in the East Basin, LCOCD personnel observed three (3) dead lake whitefish floating off the Center Bar. COLA immediately contacted the Wisconsin Department of Natural Resources (WDNR) Hayward office to learn what WDNR knew about the situation. WDNR informed COLA that they had received 5 reports of dead or dying whitefish and/or cisco on LCO, the first report coming to WDNR on August 22nd. COLA, on September 9th sent an email to all property owners on LCO requesting that anyone who had witnessed dead or dying fish on LCO in the previous 2/3 weeks, to please contact COLA immediately.

From that email plea to the property owners, COLA received 17 positive responses. COLA then sent a standardized witness report form to the 17 respondents and asked that they complete and return their account of what they had observed. The compiled 17 eye witness reports provide the facts and observations behind the following summary and conclusion relating to duration, extent and magnitude of the 2016 fish kill on LCO.

Duration

A review of the 17 witness reports shows that the first observed fish mortality was on August 12, 2016 in Anchor Bay. On the evening of August 13, a local fisherman reports seeing 60-80 floating dead lake whitefish while trolling between the Center Bar and Striker Bar in the East Basin. With a good degree of certainty, August 12/13 marks the beginning of the 2016 fish kill on LCO.

From August 12 going forward in time there are continuous eye witness reports of dead or dying whitefish and cisco either in the water or washing ashore in the East Basin of LCO. According to the witness reports, the shoreline in Anchor Bay beginning near the Grindstone Creek inlet around to Blue Goose Point and the shoreline by Broken Arrow Road is where the dead fish were being washed ashore.

September 6, 2016 was the date of the last sighting of floating or washed ashore whitefish or cisco. Five other witnesses reported seeing dead whitefish and/or cisco over the 3 day Labor Day (September 5th) weekend. With a good degree of certainty, September 5/6 marks the end of the 2016 fish kill on LCO.

The 2016 cold-water fish kill on LCO lasted from August 12 thru September 6, 2016, some 26 days in duration.

Extent

LCO has a surface area of some 5,039 Acres, with three major basins, the West, Central, and East basins. Each of the three basins has a similar depth profile with the East basin having the deepest point in the lake at 90 feet. All three basins have sufficient cold water habitat necessary to support LCO's resident population of lake whitefish and cisco.

Of the 17 eye witness reports, 16 reported dead or dying fish or fish washing ashore in the **East Basin**. All 16 witness reports place the epicenter of fish mortality in the area of Anchor Bay, Blue Goose Point, the Center Bar and the Broken Arrow Road area of the East Basin.

One eye witness did report two 2 dead fish (8/29 and 9/12) in the West Basin along the western shore of LCO, but was unable to confirm species.

In a discussion with Max Wolter, WDNR Regional Fish Biologist, on September 23, 2016, Mr. Wolter said WDNR **had not** received any reports of fish kill(s) on other Sawyer County area lakes during the duration of the die-off on LCO. Mr. Wolter did indicate that there were reports of cisco die-offs in a number of lakes further to the east in Northeast Wisconsin.

From the eye witness reports it is quite certain the extent of the 2016 LCO fish kill was confined to the East Basin of LCO. In addition, from information provided by WDNR, there were no other reported/recorded lake whitefish or cisco fish kills in other Sawyer County area lakes that are known to harbor these cold water fishes.

Magnitude

In an attempt to quantify the number of lake whitefish and cisco involved in the 2016 LCO fish kill, COLA asked that each eye witness estimate the number of dead or dying fish by species that they observed and record those numbers on the COLA provided witness report.

Whitefish

A review of the 17 reports shows that over the 26 days of the LCO fish kill event, eye witness reporting of numbers of dead whitefish range from 80 dead whitefish to 1 dead whitefish and everything in between. Descriptors of dead whitefish numbers include: >40, 10?, 40, 3, 5, 12-18, 9?, dozens and dozens. Fish size descriptors include: 2 feet long, 18-20 inches, many large fish, and whitefish 18" to 24".

Cisco

A review of the 17 reports shows that over the 26 days of the LCO fish kill event, eye witness reporting of numbers of dead cisco range from: > 40 to 25. Other descriptors of dead cisco numbers include: too numerous to count, dozens and dozens, many dead cisco on our beach. Photos of dead cisco show the fish ranged in size from approximately 3" to 15".

Many of the witness reports put the timeframe for their observation in terms days and weeks as opposed to a single date and time observation. Descriptions of timeframes for observations include: dead fish washing up on our shoreline for a couple of weeks, 2 weeks starting end of August, the weekend of the 26th to 28th was the worst, 3 weekends starting Aug. 27.

A number of witness reports described how quickly and efficiently the gulls, eagles and cranes were at cleaning up dead fish from the water and along the East Basin shoreline.

While it is not possible to place an exact number on the dead whitefish and cisco over the 26 days of the die-off, it is reasonable to say from the COLA witness reports that the number of dead fish reached into the hundreds for each of the two species.

Part 2: Causation of the 2016 Fish Kill on LCO

The monitoring data collected by the LCOCD were reviewed to investigate the cause of the 2016 LCO fish kill (*data included in separate Excel files*). The monitoring data indicate that the ultimate cause of the fish kill was the elimination of suitable habitat for whitefish and cisco survival. Whitefish and cisco require both cool temperatures and sufficient levels of oxygen. Water temperatures higher than 66° F (18.9° C) are sufficient to kill whitefish. Water temperatures higher than 73° F (22.8° C) are sufficient to kill cisco. Dissolved oxygen concentrations less than 3 mg/L are sufficient to kill either species. The band of water that included at least 3 mg/L dissolved oxygen and water temperatures less than 73° F was virtually eliminated throughout LCO at the time of the observed fish kill. Monitoring on July 28th indicated that 3.5 meters (m) of habitat existed in East Basin above 3 mg/L dissolved oxygen and less than 73° F. On August 12th, that habitat band had shrunk to 1 m, and on August 18th had decreased to less than 0.1 m. The timing of the observed fish kill overlaps with the shrinking habitat band. Similarly, in Central Basin the habitat band had shrunk to 0.83 m on July 28th, 0.48 m on August 12th, and 0.12 m on August 18th. In West Basin, the habitat band had shrunk to 0.71 m on August 12th and 0.22 m on August 18th. Whitefish and cisco in the West and Central basins may have moved to the East Basin in late July and early August to avoid the earlier onset of unsustainable habitat conditions.

There does not appear to be one specific reason why the habitat for whitefish and cisco had shrunk to the extent of causing the resultant fish kill. More likely, a combination of circumstances led to the conditions resulting in the fish kill. The following observations were made in assessing the 2016 data:

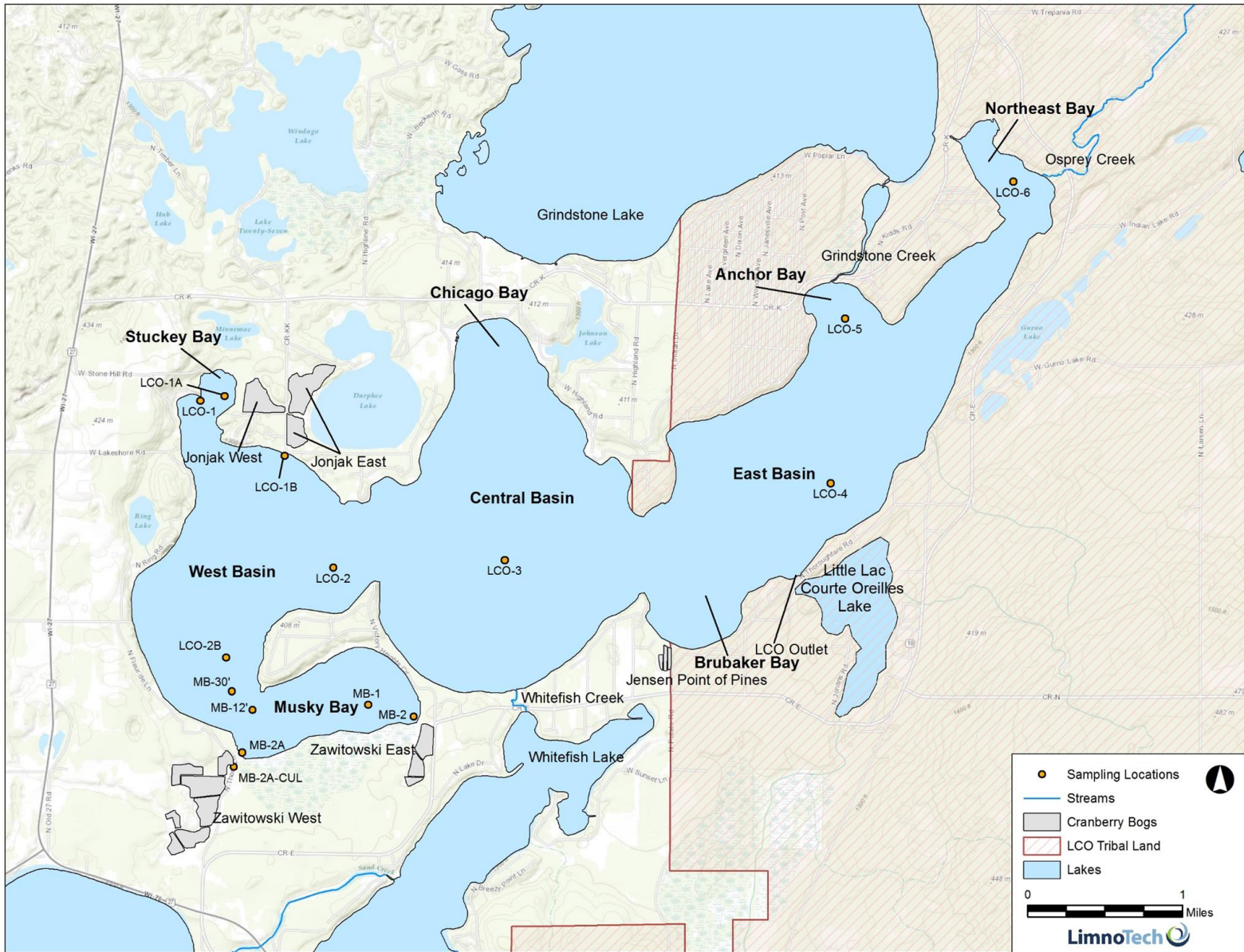
- Average air temperatures for July and August were slightly higher than normal, but not excessively high:
 - Average high temperature for July 2016 = 79.6° F; long term average = 79° F

- Average low temperature for July 2016 = 57.8° F; long term average = 57° F
- Average high temperature for August 2016 = 77.7° F; long term average = 77° F
- Average low temperature for August 2016 = 57.8° F; long term average = 55° F
- Surface water temperatures were higher than normal, but not excessively high:
 - The East basin (LCO-4) increased to 76.6° F on July 28, stayed steady at 76.3° F on August 12th, and then increased to 78.3° F on August 18th before dropping to 72.9° F on August 28th
 - Similar temperature patterns were observed in the Central and West basins
- Precipitation totaled 6.71 inches in July, 168% of the normal of 4 inches. Precipitation in August was again above normal at 3.9 inches compared to a normal of 3.4 inches. Higher inflows to LCO during July likely contributed to the warmer surface water temperatures.
- Total phosphorus concentrations overall were higher than normal:
 - Phosphorus levels in Osprey Creek, which drains to Barbertown Bay, were between 58 and 67 µg/L in August, compared to 14 to 17 µg/L in July. Recent summer averages are typically around 47 µg/L.
 - Phosphorus levels in Barbertown Bay surface water increased to 71 to 77 µg/L in August. Recent summer averages are typically 12.4 µg/L.
 - Phosphorus levels in the East Basin increased to 54 µg/L in surface water on August 12th.
 - Phosphorus levels in the Central Basin increased to 19 µg/L in surface water in August and 67 µg/L in the hypolimnion.
 - Phosphorus levels in the West Basin increased to 67 µg/L in surface water on August 25th and to 290 µg/L in the hypolimnion.
- Chlorophyll-a concentrations overall were generally higher than average:
 - In Barbertown Bay, chlorophyll-a increased to 2.6 to 3.2 µg/L compared to recent summer averages typically around 2.4 µg/L.
 - East Basin chlorophyll-a averaged 2.3 µg/L in July and August, the same as the recent summer average.
 - Central Basin and West Basin chlorophyll-a averaged 2.7 µg/L in July and August, with recent summer averages typically around 2.1 µg/L and 2.6 µg/L, respectively.
- Hypolimnetic dissolved oxygen in the three major basins was lower than normal, but comparable to 2012 values. The hypolimnetic oxygen demand rate was slightly higher than normal in the Central and East basins.
- Maximum TDO3 values in each basin were observed on August 18th: 22.6° C in the East Basin; 22.3° C in the Central Basin; and 22.2° C in the West Basin. These are all the highest recorded TDO3 values from 2011 through the present. The highest previously recorded TDO3 values were in 2012 and were 19.6° C in the East Basin, 20.3° C in the Central Basin, and 20.5° C in the West Basin.
- The maximum depth at which a water temperature of 22° C (71.6° F) was estimated to occur was 32.1 ft in the East Basin. Between 2007 and 2015, the maximum depth of 22° C in the East Basin was 28.6 ft, and the average was 24.4 ft.

Therefore, a combination of high water temperatures along with depressed dissolved oxygen levels led to conditions where there was not sufficient habitat (cool temperatures, sufficient dissolved oxygen) to sustain resident whitefish and cisco. The higher water temperatures observed may have been a result of hot and calm conditions immediately preceding the fish kill, as well as unusually high amounts of watershed runoff to the lake during the warm summer months. Depressed dissolved oxygen levels are caused by the decay of organic matter in the hypolimnion. The rate of oxygen consumption was generally higher in 2016 than previous years. Algae growth, as indicated by chlorophyll-a measurements, was somewhat higher than normal and likely caused by higher than normal phosphorus concentrations and increased temperatures. The fish kill experienced in the summer of 2016 is an example of the impacts of a changing climate (warmer temperatures and increased severity of storm events). With continued trends of warmer temperatures and increased severity of storm events, more frequent and more severe fish kills can be expected unless additional measures are taken to protect the lake.

LCO, an Outstanding Resource Water, requires a higher level of protection than what is currently afforded by the State's existing total phosphorus criterion of 15 µg/L. Existing phosphorus loads to LCO are clearly not supporting the resident whitefish and cisco populations. Therefore, a site-specific total phosphorus criterion is needed. COLA has proposed a 10 µg/L total phosphorus criterion for the lake and an annual phosphorus load reduction goal of nearly 25%, or approximately 1,500 lbs/yr. Phosphorus load reductions need to come from a variety of sources to meet this goal. A temperature and dissolved oxygen habitat criterion for LCO should also be considered recognizing that conditions approaching 73° F and dissolved oxygen levels of 3 mg/L are sufficient to kill cisco, and dissolved oxygen conditions between 3 mg/L and 5 mg/L are considered by DNR to be suboptimal and may reduce growth and survival. Therefore, maintaining minimum habitat conditions closer to a combination of 73° F and 6 mg/L dissolved oxygen is needed for cisco, and 66° F and 6 mg/L dissolved oxygen is needed to protect the resident whitefish in LCO.

Attachment 1 – LCO Lake Map



Attachment 2 - Witness Reports

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: John Hackemer
Lake Address: 7053N Thoroughfare Rd
Stone Lake, WI 54876
Home Address: 415 West Benton
Naperville, IL 60540
Telephone Number: 715-865-4314 Email Address: _____

Siting Information

Date(s) of observation: Late August
Approximate time of observation: late afternoon

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):
Area between blue goose bar and strikers bar and headed to thoroughfare bridge.

Please provide a short description of what you observed:
Sighted about nine dead fish -large and white with what appeared to be a sucker mouth

Estimation of number of fish observed by species:

9? Lake Whitefish # _____ Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/14/16 Your Initials: _____

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: John Janacek

Lake Address: 14431W Courte Oreilles Lakes Drive
Hayward, WI 54876

Home Address: 108 San Clemente Ave
Oxnard, CA

Telephone Number: 213-393-4962 Email Address:

Siting Information

Date(s) of observation: Labor Day weekend

Approximate time of observation:

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

Please provide a short description of what you observed:

Dead whitefish

Estimation of number of fish observed by species:

Lake Whitefish # Cisco # Other (species)

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/14/16 Your Initials:

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Gary Larson
Lake Address: 7713N Broken Arrow Rd.
Hayward, 54843
Home Address: 1905 22 3/4 Street
Rice Lake, WI 54868-1433
Telephone Number: 715-651-5115 Email Address: _____

Siting Information

Date(s) of observation: 2 weeks starting with end of August
Approximate time of observation: various
Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):
Shoreline near Broken Arrow Rd. neighborhood

Please provide a short description of what you observed:
Dozens and dozens of fish washing up on our shoreline for a couple of weeks.
Fish from 2 feet long all the way down to 3 inch minnows and everything in between.

Estimation of number of fish observed by species:
_____ Lake Whitefish # _____ Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/14/16 Your Initials: _____

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Tim Nolde

Lake Address: 7768 Cty Rd K
Hayward, WI 54876

Home Address: PO Box 119
Stillwater, MN

Telephone Number: 55082 Email Address: _____

Siting Information

Date(s) of observation: _____

___ Approximate time of observation: _____

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

Right by Grindstone Inlet

Please provide a short description of what you observed:

Many dead Ciscos on our beach

Estimation of number of fish observed by species:

_____ Lake Whitefish # _____ Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/14/16 Your Initials: _____

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Cindy Rost

Lake Address: 14425W Courte Oreilles Drive
Hayward, WI 54843

Home Address: 4505 Drew Ave S
Minneapolis, MN 55410

Telephone Number: 612-598-1428 Email Address: _____

Siting Information

Date(s) of observation: last two weekends in August
during the day while fishing

Approximate time of observation: _____

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):
I live near frenchmans bar and saw some there and some by the boat launch around the point

Please provide a short description of what you observed:

I don't know the difference between white fish and cisco, but I said to a friend why are
we seeing so many dead white fish. They were upside down and bloated. When I saw them
at my place, the crayfish were eating the remains.

Estimation of number of fish observed by species:

10-15 Lake Whitefish # _____ Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: _____ Your Initials: ckr

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Jim Schreiber
Lake Address: 14533W Ojibwa Court
Hayward, WI 54843
Home Address: 14533W Ojibwa Court
Hayward, WI 54843
Telephone Number: 715-634-6993 Email Address: _____

Siting Information

Date(s) of observation: Sept. 4, 2016
Approximate time of observation: 4pm
Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):
Between Anchor Bay and the east end of the lake

Please provide a short description of what you observed:
We saw 5 dead fish floating in open water.
Thought it was odd as I have not witnessed this before in
my 17 years on the lake.

Estimation of number of fish observed by species:

_____ Lake Whitefish # _____ Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/15/16 Your Initials: _____

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Kevin Croal

Lake Address: 7721 N Wilkie Rd

Hayward, WI

Home Address: 1911 11St SW

Rochester, MN

Telephone Number: 715-861-4706 Email Address:

Siting Information

Date(s) of observation: Various days in Aug

Approximate time of observation: Throughout the day

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

Along shore in front of my property off of Wilkie Rd.

Please provide a short description of what you observed:

Floating dead fish. I reported to DNR biologist via phone conversation. I reported to DNR intern in survey boat in front of my property.

Dead fish were observed on and off for several weeks.

Estimation of number of fish observed by species:

5 Lake Whitefish # 5-10 Cisco # Other (species)

Photos: Yes (If yes, please attach) No

Date this report was completed: 09/25/16 Your Initials: KFC

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Rob McMahon

Lake Address: 7985N Bay Shore Lane
Hayward, WI 54843

Home Address: W5845 Carla Court
Stoddard, WI 54658

Telephone Number: 608.788.3246 Email Address:

Siting Information

Date(s) of observation: 4 September 2016

Approximate time of observation: 10 am

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

150 yds southwest of Little Sweden Bar

Please provide a short description of what you observed:

Dead floating whitefish

Estimation of number of fish observed by species:

1 Lake Whitefish # Cisco # Other (species)

Photos: Yes (If yes, please attach) No

12 September 2016

REM

Date this report was completed: Your Initials:

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Terry Clark

Lake Address: 7660N Courte Oreilles Drive
Hayward, WI 54843

Home Address: 5705 Whispering Oaks Drive
North Port, FL 34287-2455

Telephone Number: 309 648 3594 Email Address: _____

Siting Information

Date(s) of observation: Aug. 27th

Approximate time of observation: 9:00 to 10:00 AM

Location of observation (Use attached map for brief description, e.g., 00yds south of Deep Center Bar):
West of Blue Goose point into Anchor Bay and on west shore line

Please provide a short description of what you observed :

Observed hundreds of sea gulls in the water along Center Bar

Estimation of number of fish observed by species:

-1Q? Lake Whitefish # Cisco # _____ Other (species) _____

Photos: I/I Yes (If yes, please attach) D No

Date this report was completed: 9/14/16 Your Initials: J-C

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Patrick Eaton

Lake Address: LCO Conservation Department

Home Address: _____

Telephone Number: 715-634-0102 Email Address: pat.eaton@lco-nsn.gov

Siting Information

Date(s) of observation: 8/26/16

Approximate time of observation: 9:30 AM

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):
Approx. 200-300 yards South of Blue Goose Point

Please provide a short description of what you observed:

3 dead whitefish-fish were floating, starting to decompose yet fully intact. All fish were between 18" and 24" long

Estimation of number of fish observed by species:

3 Lake Whitefish # _____ Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/15/16 Your Initials: PE

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Garry Jensen

Lake Address: 6858N Fleur de Lane
Stone Lake, WI 54876

Home Address: PO Box 324
Stone Lake, WI 54876

Telephone Number: 715-634-9236 Email Address: _____

Siting Information

Date(s) of observation: 8/29 - 9/12

Approximate time of observation: various

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

West shore of LCO

Please provide a short description of what you observed:

2 dead fish over the last two weeks. Not certain whether
they were whitefish

Estimation of number of fish observed by species:

_____ Lake Whitefish # _____ Cisco # 2 Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/14 Your Initials: gj

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Brett McConnell

Lake Address: LCO Conservation Department

Home Address: W132 Rainbow Rd. Hayward, WI

Telephone Number: 715-699-0692 Email Address: brettmc@cheqnet.net

Siting Information

Date(s) of observation: 8/13/16 & 8/20/16

Approximate time of observation: Evening approx. 7 PM

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

Area from Center Bar east to Striker's Bar

Please provide a short description of what you observed:

Rex Droessler contacted me and said he was fishing on the evenings of 8/13/16 & 8/20/16 and witnessed dead whitefish on the 13th (60-80) and dead cisco (approx. 25) on the 20th.

Estimation of number of fish observed by species:

60-80 Lake Whitefish # 25 Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/22/16 Your Initials: BMM

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Chris McMurray

Lake Address: 7776 North Highway K

Hayward, WI 54843

Home Address: 716 - 17 ST

Kenosha, WI 53140

Telephone Number: 414-378-2806 Email Address: _____

Siting Information

Date(s) of observation: Approx. August 22, 2016

Approximate time of observation: Late afternoon

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

Near Grindstone Creek, Anchor Bay area

Please provide a short description of what you observed:

Many large and small dead fish floating into shore. They were not fresh, smelled horrible!

Estimation of number of fish observed by species:

40 Lake Whitefish # _____ Cisco # 10 Other (species) suckers

Photos: Yes (If yes, please attach) No

Date this report was completed: Sept. 12, 2016 Your Initials: cm

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Michael Muske

Lake Address: 7763N Kidds Rd
Hayward, WI 54876

Home Address: 1080 102nd St E
Inver Grove Heights, MN 55077

Telephone Number: 651-335-8992 Email Address:

Siting Information

Date(s) of observation: August 12 - 28, 2016

Approximate time of observation: various

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

Anchor Bay

Please provide a short description of what you observed:

The weekend of the 26th to 28th was the worst
>40 dead White fish and a lot more Cisco

Estimation of number of fish observed by species:

>40 Lake Whitefish # >40 Cisco # Other (species)

Photos: [checked] Yes (If yes, please attach) [] No

Date this report was completed: 9/14/16 Your Initials: MMM

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: Brett Teten

Lake Address: 14748W Sand Beach Lane
Stone Lake, WI 54843

Home Address: 215 10th Ave S, Unit #219
Minneapolis, MN 55415-1753

Telephone Number: 612-991-3860, 612-414-4982 Email Address _____

Siting Information

Date(s) of observation: 3 weekends starting Aug. 27

Approximate time of observation: _____

Location of observation (Use attached map for brief description, e.g., 100yds south of Deep Center Bar):

East Basin

Please provide a short description of what you observed:

At least two or three of these dead fish each day the past three weekends.

Estimation of number of fish observed by species:

12-18 Lake Whitefish # _____ Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: 9/14/15 Your Initials: _____

Thank You!

2016 Lac Courte Oreilles Fishkill

Witness Report

Contact Information

Name: TOM HEINRICH
 Lake Address: 7294N Winters Point Road
Hayward, Wis
 Home Address: 14651 W Cty Road B
Hayward, Wis 54843
 Telephone Number: 715 634 3143 Email Address: tcx9cano@gnail.com

Siting Information

Date(s) of observation: August 31, 2016
 Approximate time of observation: 3 pm.
 Location of observation (Use attached map for brief description, e.g., 100 yds south of Deep Center Bar):
East side of Winters Point / due West of Frenchman's.
 Please provide a short description of what you observed:
Floating white fish - about 100 ft from shore.
Scales on path to lake from Eagles eating.
Sept 1 - Hawks white fish on shore - chewed by Eagle.

Estimation of number of fish observed by species:

+2 Lake Whitefish # _____ Cisco # _____ Other (species) _____

Photos: Yes (If yes, please attach) No

Date this report was completed: Sept 12, 2016 Your Initials: Thomas H. Heinrich.

Thank You!

→ * Since early August - Eagles have stalked a chick on this shore - lots of scales fish chunks

Attachment 3 - Photo Documentation



Photograph provided by Terry Clark



Photograph provided by Terry Clark



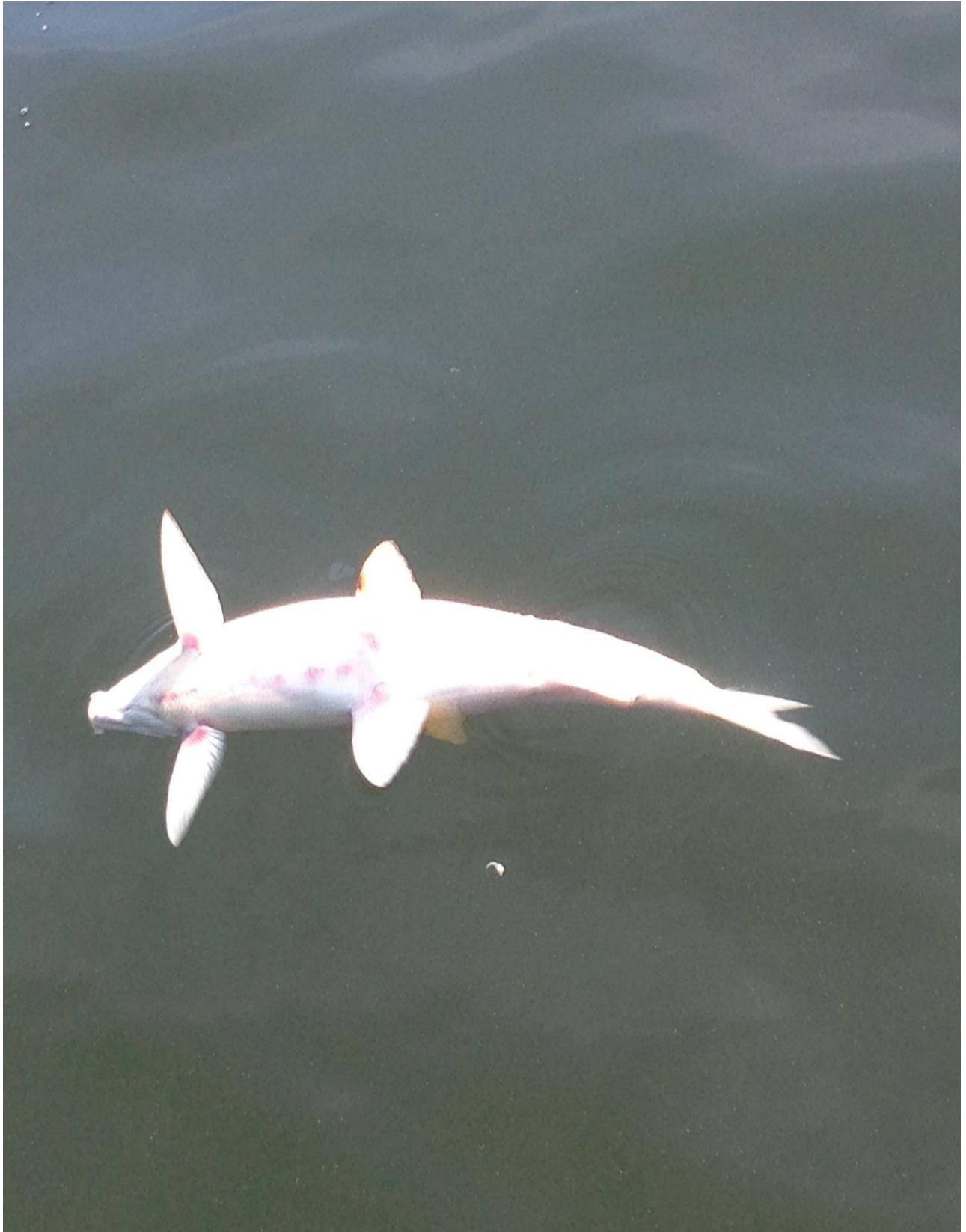
Photograph provided by Terry Clark: "I observed these fish on Saturday Aug. 27th around 9:00 to 10:00 AM. I immediately called the DNR hot line and reported it. I also sent them several photos. They had the DNR rep. for this lake and area return my call which he did right away. He implied that it was just as you describe in your letter and that several other lakes reported similar findings. I have not noticed any additional kill since that date. I am located on West Shore 3 Cabins south of Anchor Bay boat launch or directly West of Blue Goose Point. Fish I saw were West of Blue Goose point into Anchor Bay and on West shore line. Also observed Hundreds of Sea Gulls n the water along Center Bar. They were not eating and none of fish I observed appeared to have been disturbed by birds or eagles." Terry Clark



Photographs provided by Gary Larson: "I live up on the NE end of the lake in the broken arrow rd. neighborhood. At The end of August I noticed dozens and dozens of fish washing up on our shoreline for a couple of weeks. The Eagles, gulls and cranes ate well, but there were so many I had to clean up our shoreline several times. I found fish from 2 feet long all the way down to 3 inch minnows and everything in between. I contacted the DNR fish biologist 2 separate times, Max Wolter I believe. Nice guy. He explained it as a combination of factors related to lack of oxygen depletion. Too warm of water, too many weeds, too much algae. Early spring and long summer, high water levels have all taken a toll. I was hoping it wasn't some bacterial thing like out in Yellowstone. Anyway, here are some pics. That is a 5 gallon bucket that I filled a few times and a garbage bag with assorted sizes of baitfish." Gary Larson



Photograph provided by Michael Muske: "The above picture was taken on August 12th. Fish was floating by my place in Anchor Bay. This was the start of it, over the next two weekends it got progressively worse. The weekend of the 26th to 28th was the worst. I must have seen over 40 dead White fish and a lot more Cisco. The gulls were out in full force eating the Cisco." Michael Muske



Photograph provided by Pat Eaton



Photograph provided by Pat Eaton.



Photograph provided by Pat Eaton: "The morning of August 26, 2016 approximately 9:30 a.m., during our profiling of Lac Courte Oreilles Lake, we came across 3 dead floating Lake Whitefish. The fish were between 18" and 24". They were floating on Stoney's point, East of Center Bar, and were slightly bloated, yet all firm and intact. Weather conditions of the previous 4 days consisted of sustained winds 15-25 mph out of the west." Pat Eaton