## NORTHLAND COLLEGE



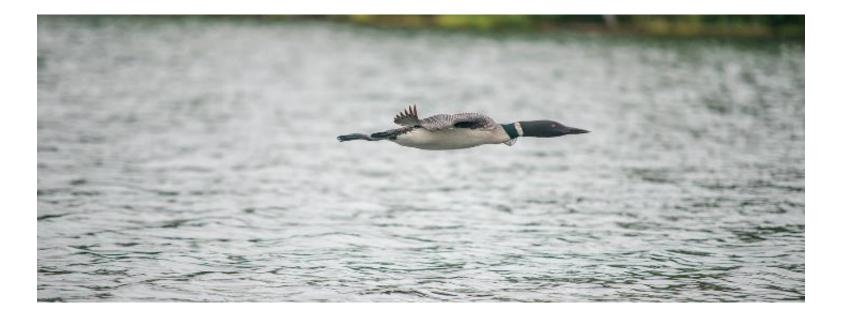
Erica LeMoine LoonWatch Director Gavin Fountaine LoonWatch Intern

Email: loonwatch@northland.edu Phone: 715-682-1220

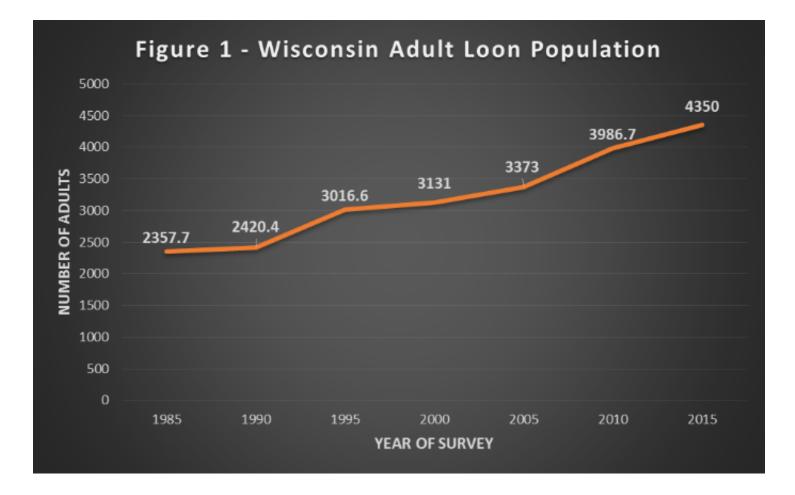




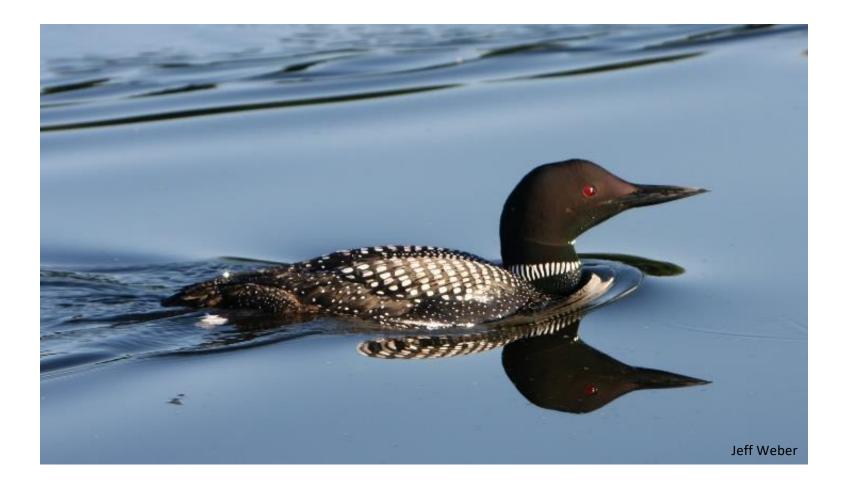
#### Estimates total loon population in WI



#### Population Estimate of Adult Common Loons in Wisconsin





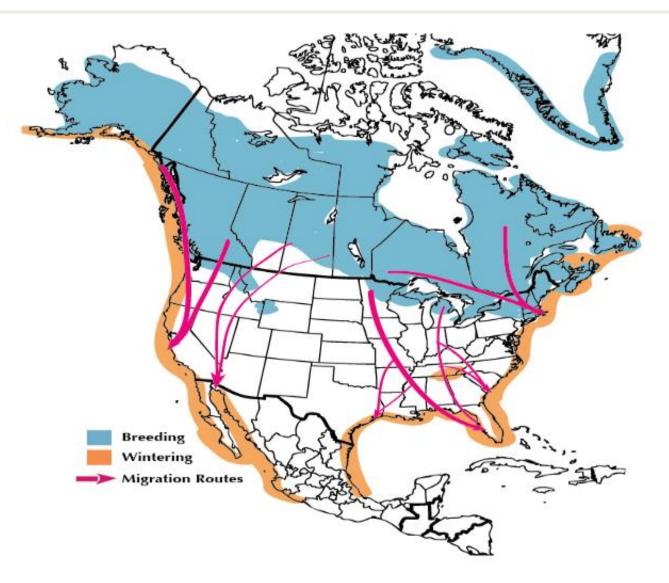




#### <sup>1</sup>/<sub>4</sub> Mile Aquatic Runway

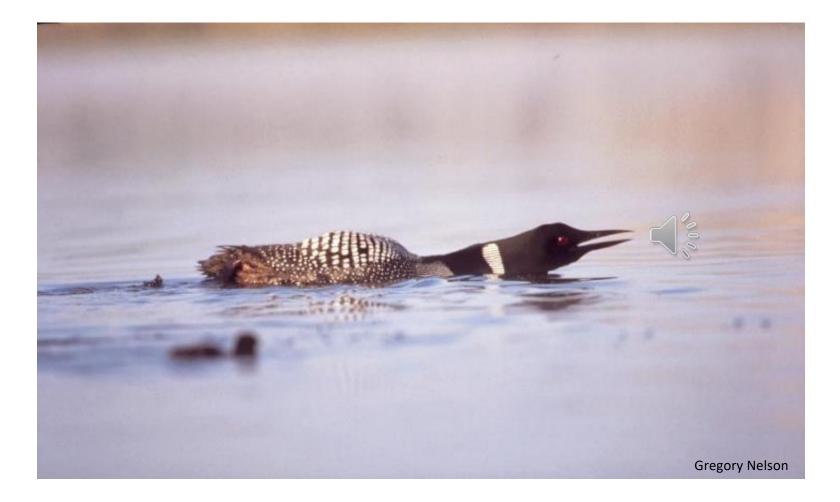


# Common Loon Range and Migration in North America



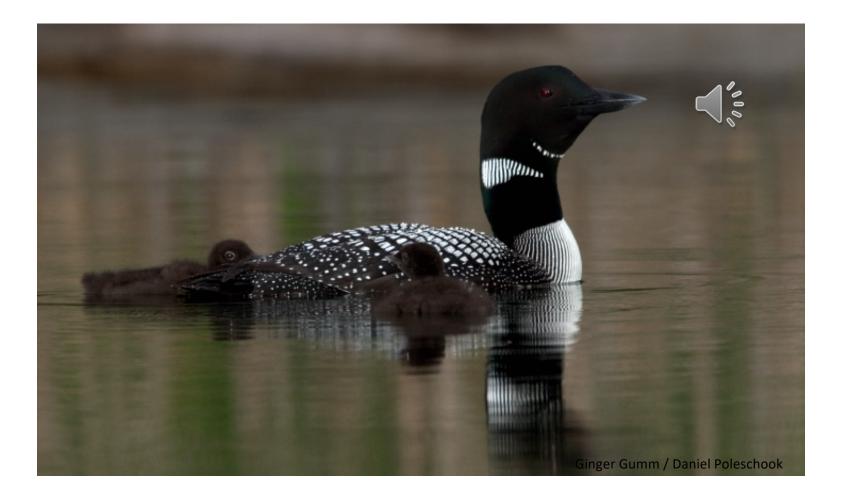


#### Yodel



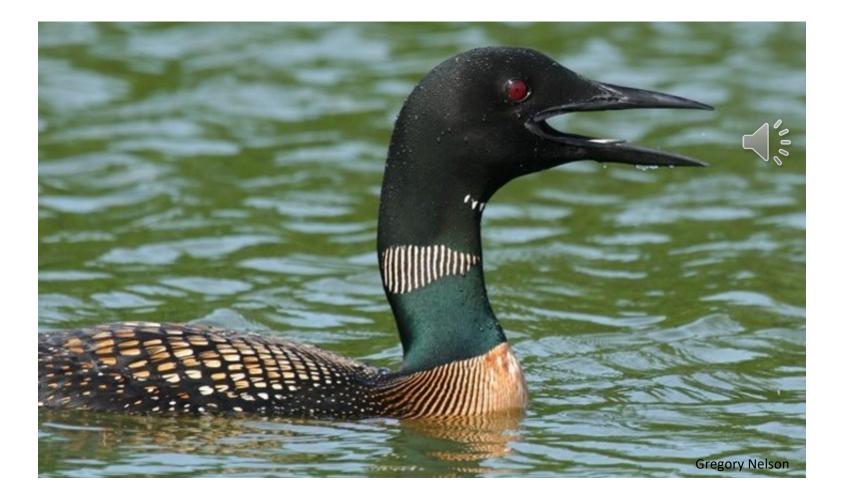


#### Wail





#### Tremolo



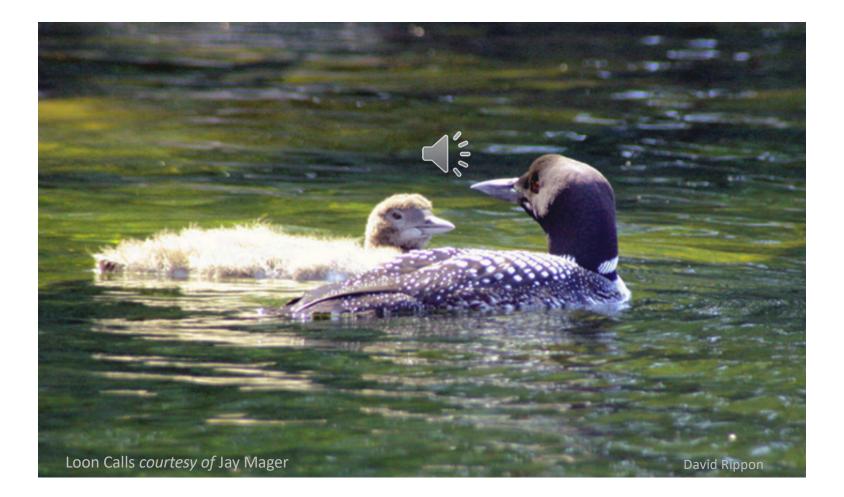


#### In-flight Tremolo





#### Hoot







#### Common Merganser





#### Western Grebe









#### Double-crested Cormorant









#### **Defensive Postures**



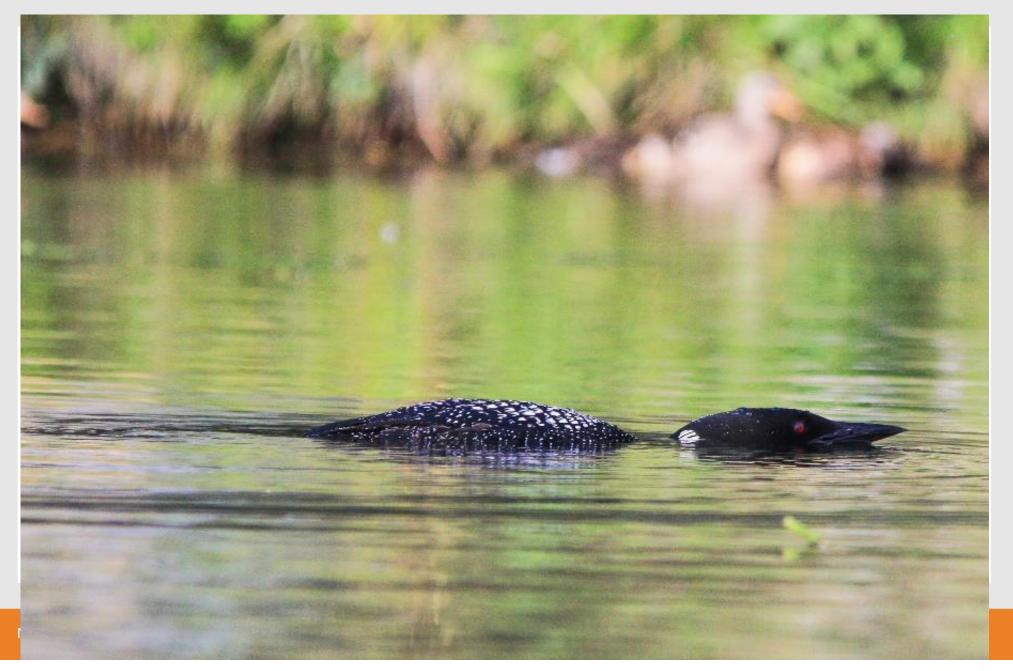


#### **Defensive Postures**





#### **Defensive Postures**



#### Loon Identification





#### Loon Identification





#### Loon Identification



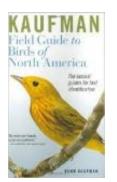




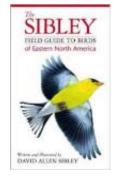


## WISCONSIN LOON POPULATION SURVEY Equipment

- Make sure you are able to positively identify loons – adults and chicks.
- Low light and bright light conditions, wind, fog, and rain can make it difficult to see.
- Bring binoculars, your survey form and instructions, and a field guide.







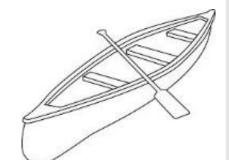


### WISCONSIN LOON POPULATION SURVEY Equipment

- 1. Be careful wear life vests if you use a boat.
- 2. Avoid disturbing the loons as you count them
- 3. Bring binoculars, spotting scope (if available), pencil, survey form, map, instructions, field guide
- 4. Remember to check and clean your boat and trailer of invasives.







## NORTHLANDWISCONSIN LOON POPULATION SURVEYCOLLEGEBinoculars – How to Use Em'

#### 1. Fit

Eyeglass Wearer



Non-Eyeglass Wearer



Adjust interpupillary distance



#### 2. Focus

Focus with your left eye by turning ring.



Then, focus with your right eye with diopter.

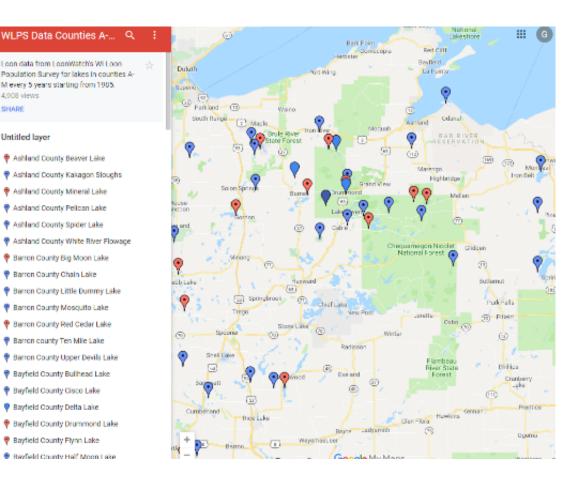


## WISCONSIN LOON POPULATION SURVEY Lake Location

4.908 views

SHARE

- Make sure to survey the lake you signed up for!
- Confirmation email with link to DNR website/maps
- Surveying the wrong lake invalidates the data





## WISCONSIN LOON POPULATION SURVEY WBIC Number

- WBIC (Water Body Identification Code)
- Unique number for every lake
- Helps differentiate lakes with the same name
- How many "Mud Lakes" are there in Wisconsin?

Mud Lake	Taylor	8
Mud Lake	Dane	51
Mud Lake	Jefferson	185
Mud Lake	Jefferson	30
Mud Lake	Washington	7
Mud Lake	Waushara	12
Mud Lake	Lincoln	11
Mud Lake	Portage	16
Mud Lake	Sawyer	20
Mud Lake	Fond du Lac	48
Mud Lake	Taylor	5
Mud Lake	Washburn	53
Mud Lake	Iron	24
Mud Lake	Sawyer	33
Mud Lake	Marquette	34
Mud Lake	Marquette	50
<u>&lt; First</u> <u>&lt; Prev</u>	Page 1 of 7	<u>Next &gt;</u> <u>Last &gt;</u>

#### WISCONSIN LOON POPULATION SURVEY



Lake Name	County	Size (Acres)
Bass Lake	Burnett	82
Bass Lake	Burnett	37
Bass Lake	Burnett	53
Bass Lake	Burnett	222
Bass Lake	Burnett	35
Bass Lake	Burnett	71
Bass Lake	Burnett	41
Bass Lake	Burnett	31
Bass Lake	Burnett	192



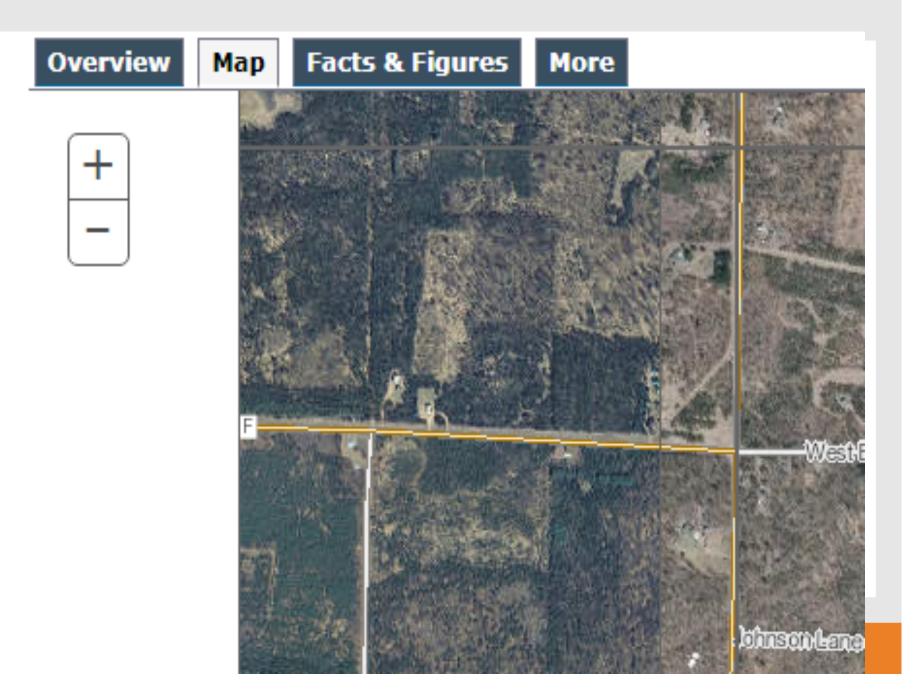
#### Bass Lake

Burnett County, 222 Acres

Overview Map Facts & Figures More

Facto & Figures	
Facts & Figures	
Name	Bass Lake
Waterbody ID (WBIC)	2675000
Area	222 ACRES
Maximum Depth	6 feet
Mean Depth	4 FEET
Bottom	50% sand, 0% gravel, 0% rock, 50% muck
Waterbody Type	lake
Hydrologic Lake Type	SEEPAGE
County	Burnett
Region	NO
Latitude, Longitude	45.95157450, -92.42478960
Contour (Bathymetric) Map	Contour Map
Interactive Map	Interactive Map
Lake Management	
Lake Organizations	
Recreation	
Boat Landings	1
Fish	Panfish, Largemouth Bass and Northern Pike
Lake Health	
Invasive Species <u>*</u>	

WISCONSIN LOON POPULATION SURVEY

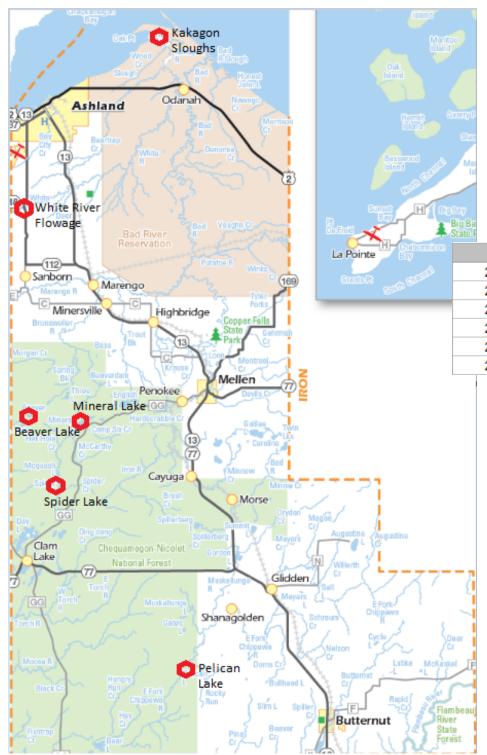




WISCONSIN LOON POPULATION SURVEY

#### **County Maps**

- The following slide is an example of a county map with the locations of all WLPS lakes in that county.
- Be sure to visit your lake before the survey!



#### **Ashland County**

WBIC	Lake Name	Lake Size (acres)	Township & Range
2916200	Beaver L (T44 R4 S7)	35	T44N R4W
2891700	Kakagon Sloughs	766	T48N R3W
2916900	Mineral L	225	T44N R4W
2404800	Pelican L	40	T41N R3W
2918600	Spider L	103	T43N R4W
2894200	White River Flowage	56	T46N R4W

WISCONSIN LOON POPULATION SURVEY

## Survey Method

FIGURE 1. Example of vantage points needed to survey an irregularly shaped lake from land.

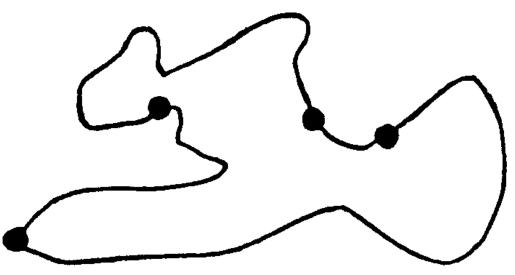
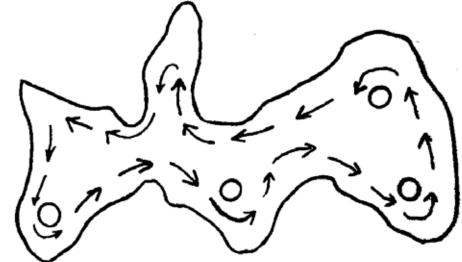


FIGURE 2. Example of boat route needed to survey an irregularly shaped lake.



WISCONSIN LOON POPULATION SURVEY How to Survey

- Count total # of ADULTS and CHICKS
- This is the **only** data we need
- Be conservative in your count
- Do not count flyovers





WISCONSIN LOON POPULATION SURVEY How to Survey

- Fill out the form completely
- 0 is still important data!
- If you don't see any, stick around.



### How to Survey

- Do NOT count loons that:
  - Fly onto the lake
  - Fly over the lake
  - You can hear but not see

- DO count loons that:
  - Take off from the lake



## Filling out the Survey Form

#### Fill the form out completely (don't leave anything blank)

#### If you don't see any loons, write "0"

#### PLEASE READ THE INSTRUCTION FORM BEFORE THE SURVEY

Date of Observation (circle one): 7/18/20 bad weather date: 7/25/20

ATTENTION: SURVEYS NOT DONE ON ONE OF THESE DAYS CANNOT BE ACCEPTED

Observation Start Time: (between 5 AM and 9:30 AM):

Observation End Time: (between 5:30 AM and 10 AM):

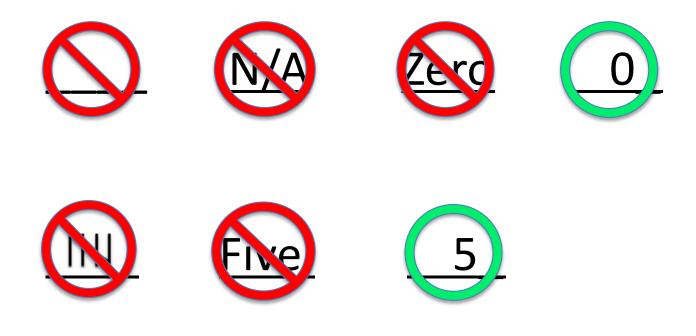
Number of ADULT loons seen on the lake during survey:

Number of loon CHICKS seen on the lake during the survey:

IMPORTANT! If you do not see any loons, write "0" above – Do not leave spaces blank.



# Filling out the Survey Form



# Filling out the Survey Form

# Make note of weather conditions and method/equipment you used for survey

Circle all appropriate responses for the following:

Calm	Ripples	Whitecaps	Whitecaps	
Clear	Partly Cloudy	Overcast	Rain	
Excellent	Good	Poor	Zero	
From Shore	Motorboat Canoe/kayak		Other:	
Binoculars	Spotting Scope			
I Live on the Lake	Public Boat Private Landing Landowner		Other:	
	Clear Excellent From Shore Binoculars I Live on	Clear Partly Cloudy Excellent Good From Shore Motorboat Binoculars Spotting Scope I Live on Public Boat the Lake Landing	ClearPartly CloudyOvercastExcellentGoodPoorFrom ShoreMotorboatCanoe/kayakBinocularsSpotting ScopeVercastI Live onPublic BoatPrivate	

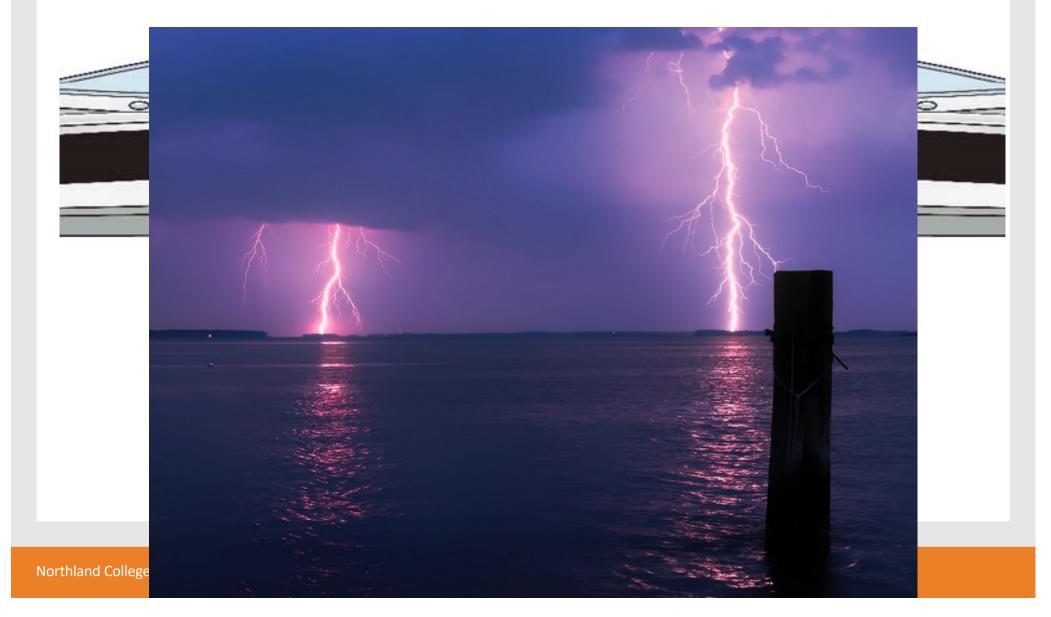
Please see other side for more information.

# Filling out the Survey Form

	Lake Access: (i.e. Where did you get on the water or find access to view the lake)	I Live on the Lake	Public Boat Landing Please see of	Private Landowner ther side for m	Other: ore information.	
Note how you accessed the lake for						
future reference.	For Office Use Only: WB	IC <sub>ion</sub>		Enter	ed:	
	Describe relevant lake access details that may be helpful for the next survey in 2025 (please indicate and label good access points on your lake map):					
	Additional Comments (please :	add another pa	ge if needed):			



# Safety on the Water





# Safety on the Water

- Survey date is July 18<sup>th</sup>, backup date is July 25<sup>th</sup>
- Only use alternate date if absolutely necessary
- If the weather's bad when you get there, wait around for a while. It might clear up.



# **Aquatic Invasive Species**

- WI has invasive species such as EWM and zebra mussels
- Remove vegetation from boat after leaving the lake
- Wash boat when transporting to a different lake



# Surveying Respectfully

- Remember the 200 foot rule
- Especially avoid getting too close to nests
- Watch for agitation/distress (tremolo, penguin dance)





- Make sure your form is filled out completely.
- Mark your survey route on the included map.
- Return form and map the **first mailing day after the survey.**
- Contact us if you didn't complete the survey.

#### LoonWatch, 1411 Ellis Avenue, Ashland, WI 54806





## https://healthylakeswi.com/





#### Build a Rain Garden and Utilize Rain Barrels



Project Location: River Falls, WI

A rain barrel used to collect rooftop runoff using a gutter / downspout system

# Get the Lead Out and Properly Dispose of Fishing Line







- Walk or bike to work, store, errands
- Carpool
- Use public transportation
- Drive the posted speed limit

Make sure your tires are properly inflated

Purchase locally produced products

Support alternative energy

### **Educate Your Fellow Lake Users**

# **LEAD ALERT**

Lead fishing tackle kills loons, eagles, swans, and other wildlife due to lead poisoning. Please use <u>non-lead tackle</u> when fishing this lake!

4



LoonWatch Get the Lead Out!

for more information, with Low-Weith at one a surfiliant ada/Isservetich as the Reptor Education Group, Inc. of 715-623-601.

Prevent wildlife death and entanglement. Discard unwanted fishing line in a trash receptacle and lead tackle at a local hazardous waste collection site.

REGI

LOON ALERT Help keep this lake safe for loons by staying 200 feet from: loons on the water, and shoreline areas used by loons.

Wildlife harrassment is illegal. Please report violations to the local Department of Natural Resources office or call toll free 1-800-TIP-WDNR. For loon information write: LoonWatch, Sigurd Olson Environmental Institute, Northland College, Ashland, WI \$4806 or visit our website: www.morthland.edu/soei or email us at loonwatch@northland.edu.



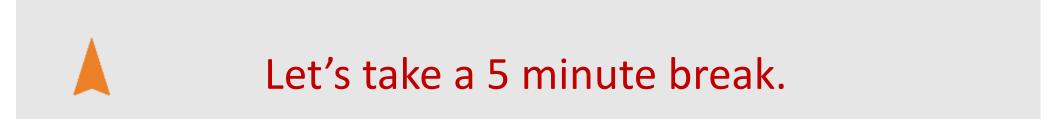
#### Be a Loon Ambassador!

Help protect loons by sharing what you learned and representing LoonWatch



### Recap

- Go to your lake ahead of time
- Survey the correct lake
- Count total adults and chicks on the lake
- Positively identify individuals
- Do NOT count fly-overs
- Fill out form completely with numerals (0, 2, etc.)
- Return form immediately after survey

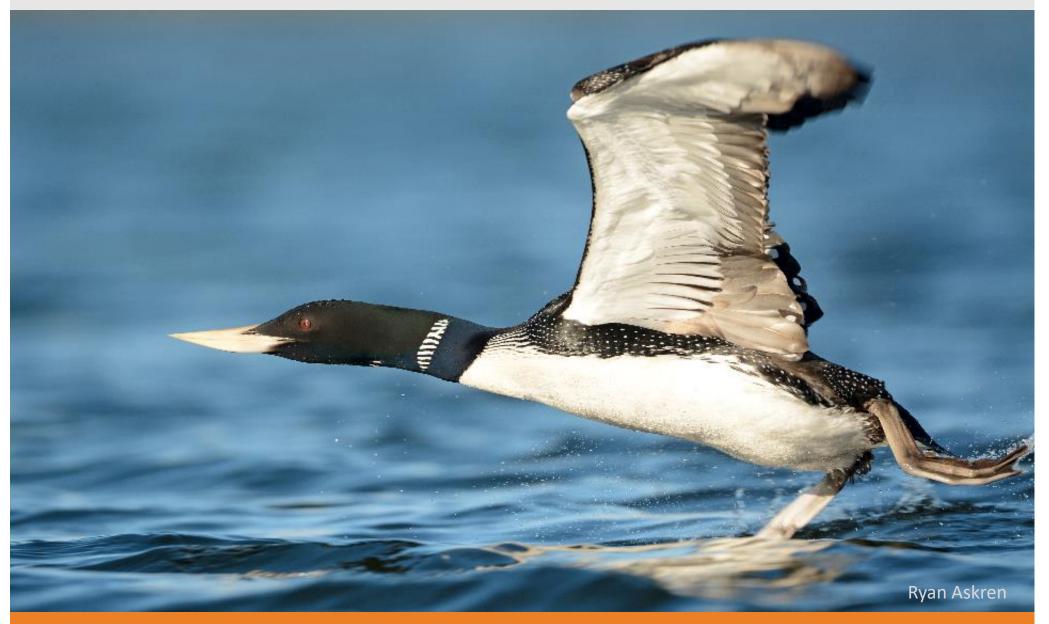








#### Yellow-billed Loon (Gavia adamsii)



# Pacific Loon (*Gavia pacifica*)



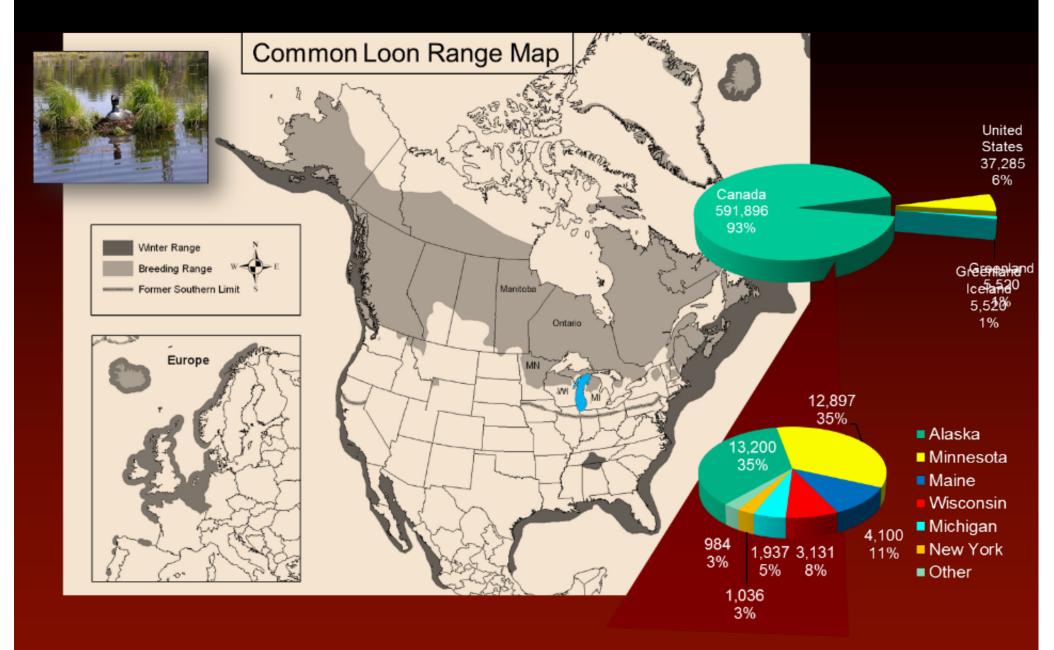


#### Arctic Loon (Gavia arctica)







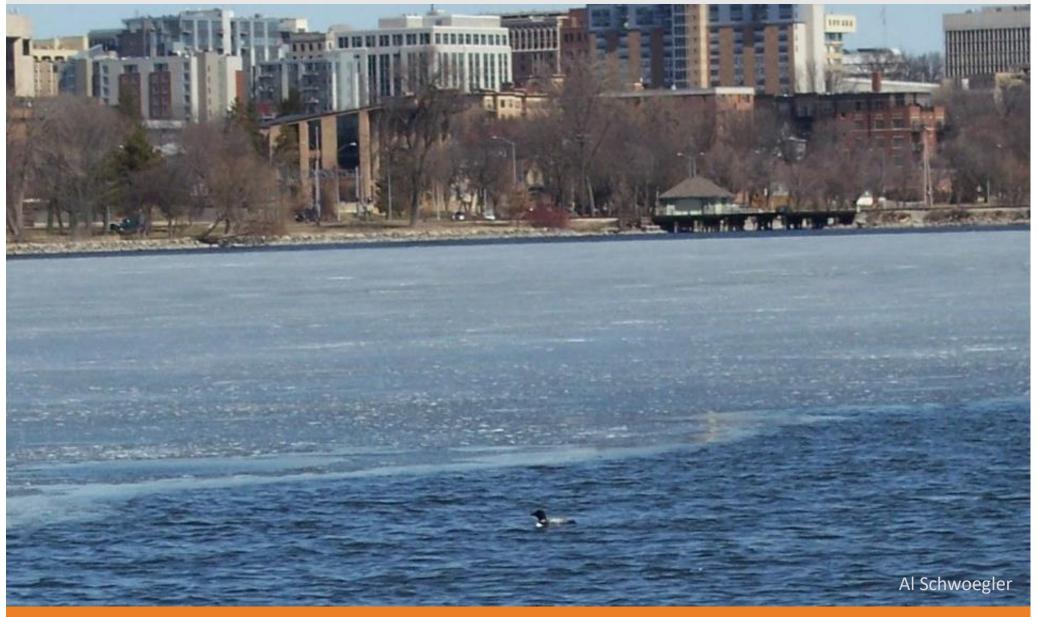


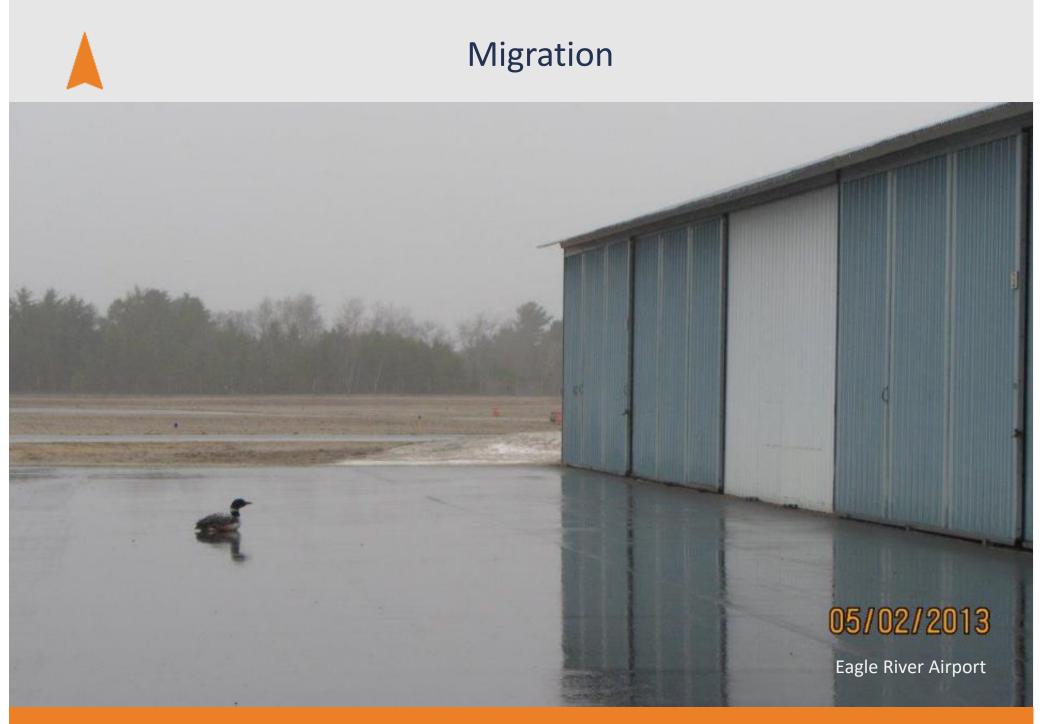
From Evers (2007)





#### Spring Migration Stopover Lakes







#### Predators





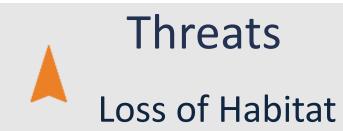
#### Predators







Loss of Habitat



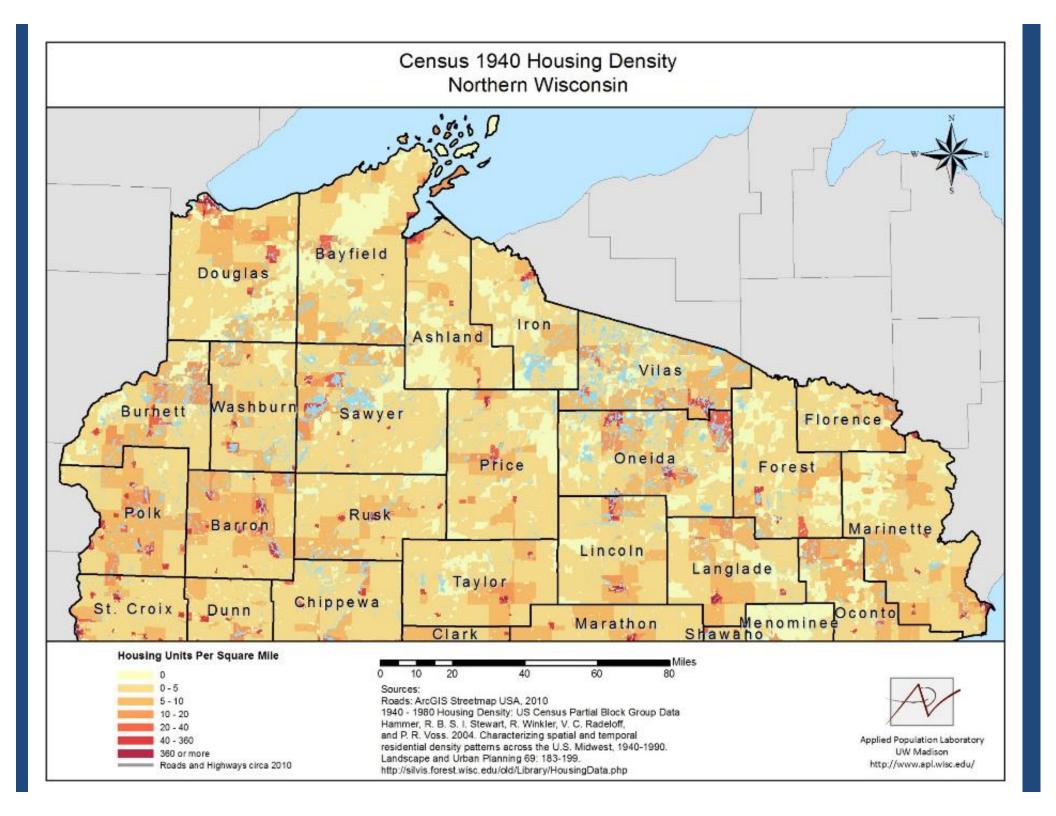
# Past and Present Common Loon Breeding Range in North America

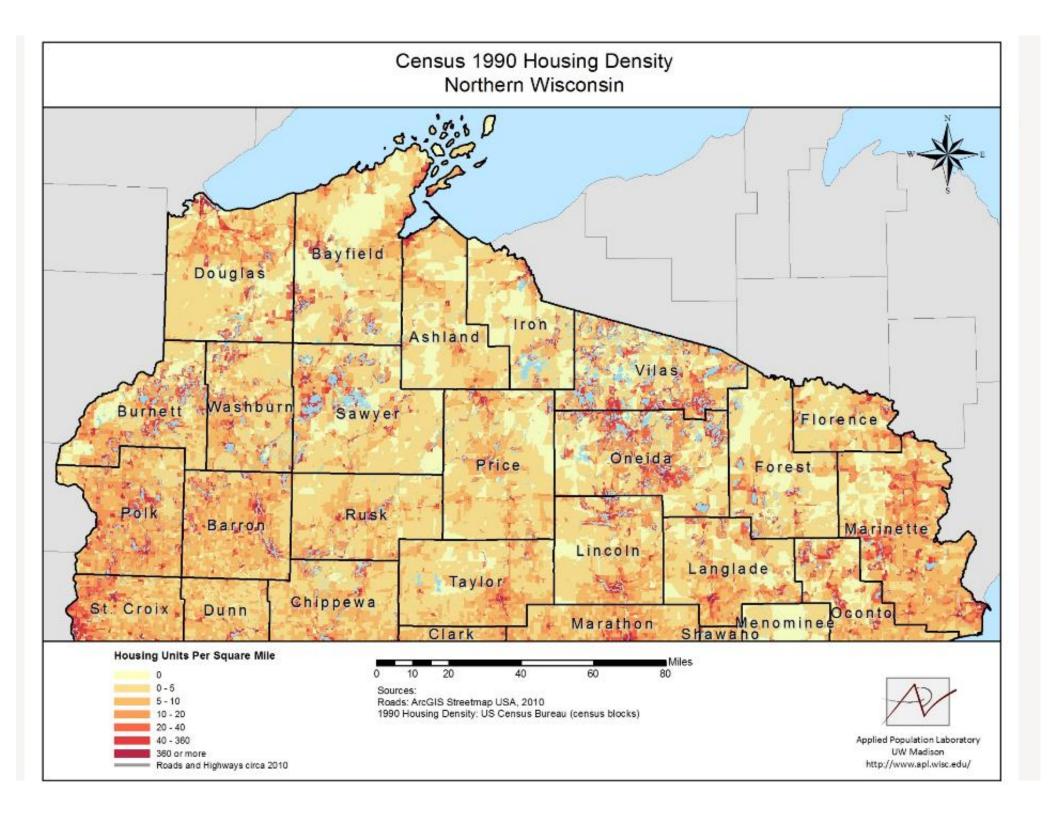


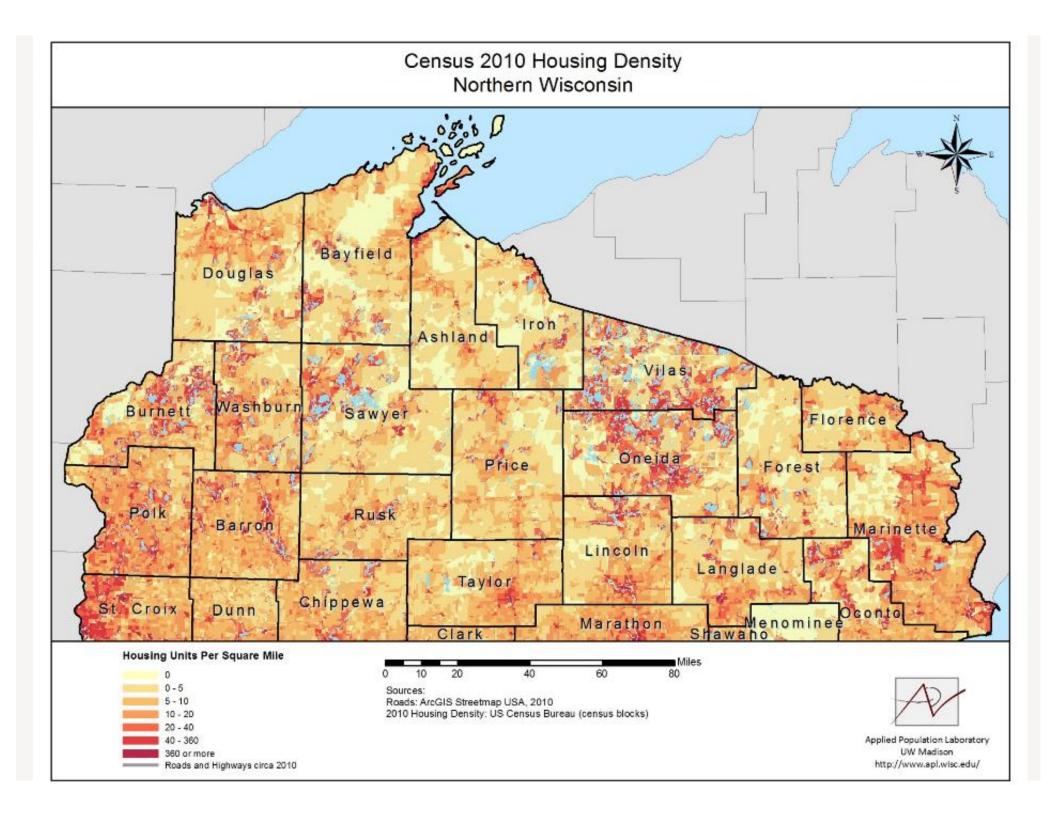
#### Current Range

HistoricalSouthern Limit

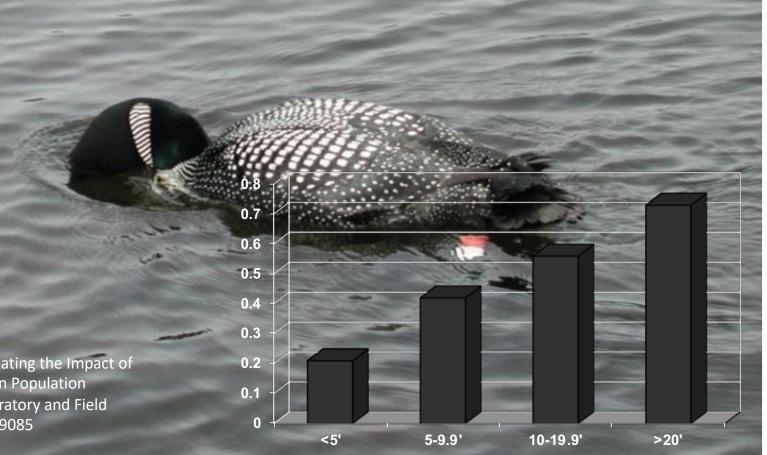










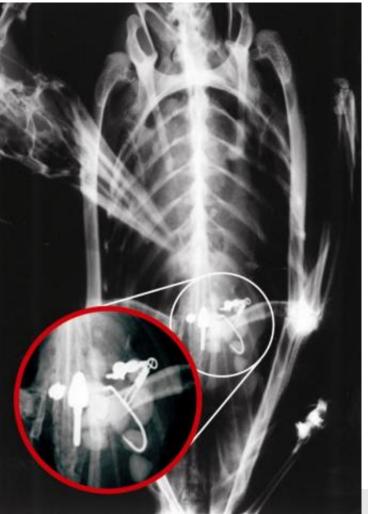


Meyer, M. 2005. Final Report: Evaluating the Impact of Multiple Stressors on Common Loon Population Demographics - An Integrated Laboratory and Field Approach. EPA Grant Number: R829085



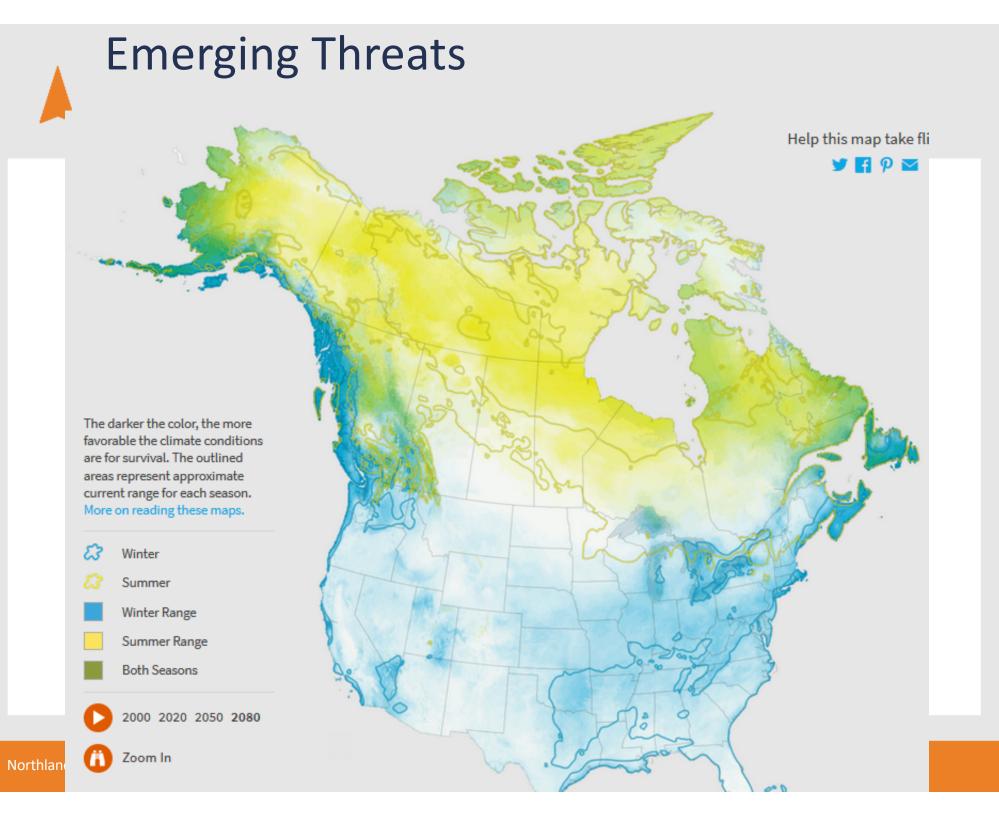
### Approximately 20% of necropsied loons succumbed to lead poisoning.



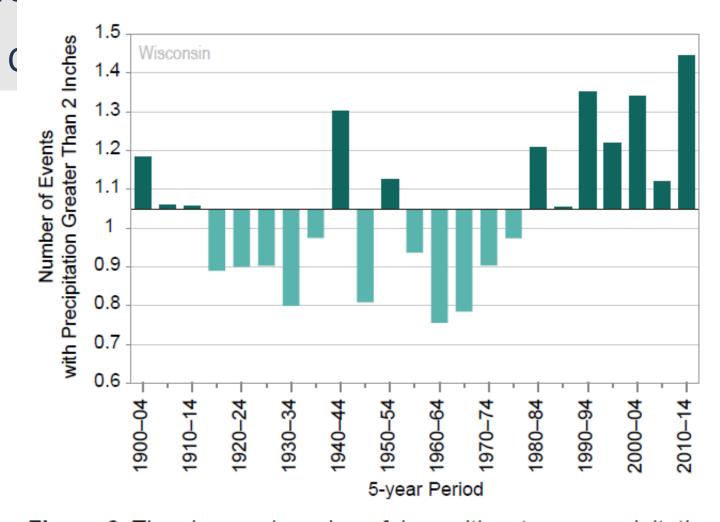








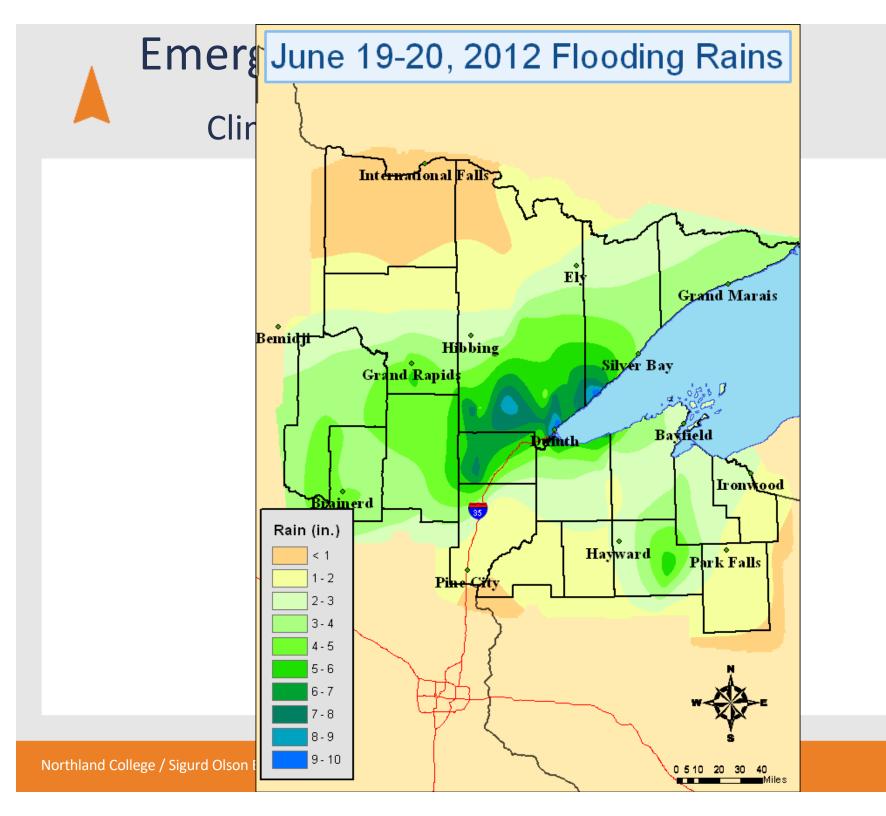
#### Eme Observed Number of Extreme Precipitation Events



NOAA National Centers for Environmental Information State Climate Summaries: Wisconsin

> **Figure 6:** The observed number of days with extreme precipitation events (annual number of days with precipitation above 2 inches) for 1900–2014, averaged over 5-year periods; these values are averages from 28 long-term reporting stations. A typical station experiences 1 day annually with 2 inches or more of precipitation. Since 1990, Wisconsin has experienced an increasing number of extreme rain events. Source: CICS-NC and NOAA NCEI.

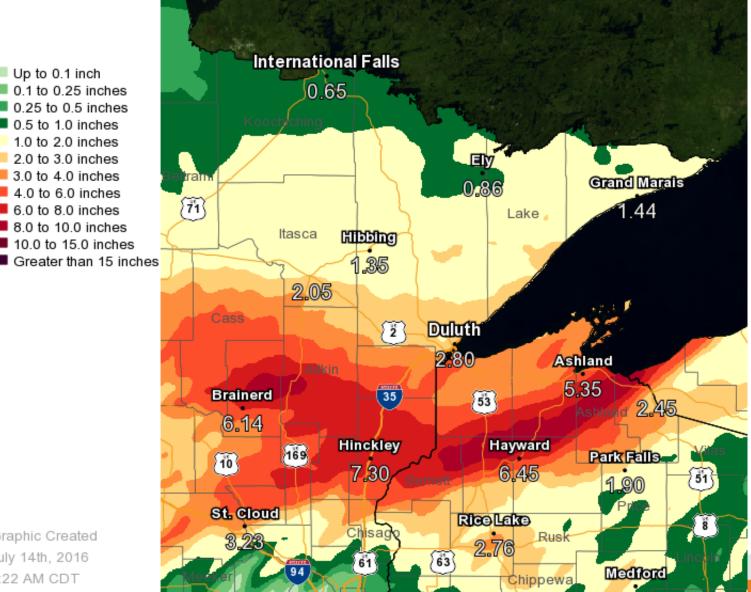
Northland College / Sigurd (



#### Emerging Threats **Observed Precipitation**



#### Valid Ending Thursday July 14th, 2016 at 8 AM CDT



Graphic Created July 14th, 2016 9:22 AM CDT





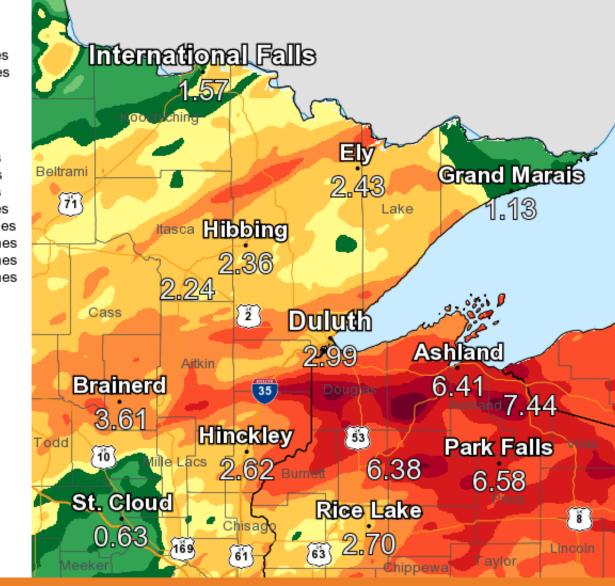
#### Emerging Threats Observed Precipitation



Valid Ending Monday June 18th, 2018 at 12 PM CDT



Graphic Created June 18th, 2018 12:28 PM CDT





### Emerging Threats The Loon Project



- From 1993 to 2019 the incidence of chicks reaching 5 weeks of age has fallen 1.1% annually.
- In 2019, 5-week old chicks weighed 10.5% less than those in 1993.
- There are fewer two-chick broods.
- From 1993 to 1998, 53% of broods were single broods. From 2014 to 2019, it jumped o 73%.
- Decreasing floater population is leading to fewer territorial evictions.
- The threat of being evicted (from territory) is only 20% to 25% chance of what is was 2 decades ago





In WI it is unlawful to:

- Chase, harass or disturb wildlife with your vessel.
- Operate a vessel within 100 feet of the shoreline, any dock, raft, pier or restricted area on any lake at greater than "slow, no wake speed".

Northland College / Sigurd Olson Environmental Institute / LoonWatch

🔶 boat-ed.com®

WISCONSIN

AND

**BOATING LAWS** 

RESPONSIBILITIES

#### NORTHLAND COLLEGE

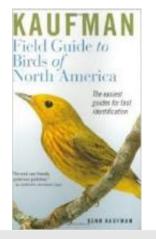


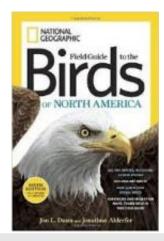
- An annual monitoring program. Ideally, volunteers monitor once a week from ice-out to migration.
- Volunteers collect productivity and phenology data: arrival date, floaters, territorial pairs, nesting pairs, # of nesting attempts, # chicks, # chicks surviving to 8 weeks.
- Volunteers can select the lake(s) they want to monitor.

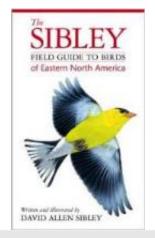


- Make sure you are able to positively identify loons adults, chicks and juveniles.
- Low light and bright light conditions, wind, fog, and rain can make it difficult to see.
- Bring binoculars, your survey form and instructions, and a field guide.









- 1. Be careful wear life vests if you go in a boat or canoe
- 2. Try to avoid disturbing the loons as you count them
- 3. Bring binoculars, spotting scope (if available), pencil, monitoring form, map, instructions, field guide
- Remember to check your boat (and boat trailer if applicable) for aquatic invasive species (esp plants) when removing it from the water. We recommend washing your boat before transferring it to a different water body.
- 5. Have fun!



#### ANNUAL LAKES MONITORING PROGRAM Weekly lake surveys document presence of:





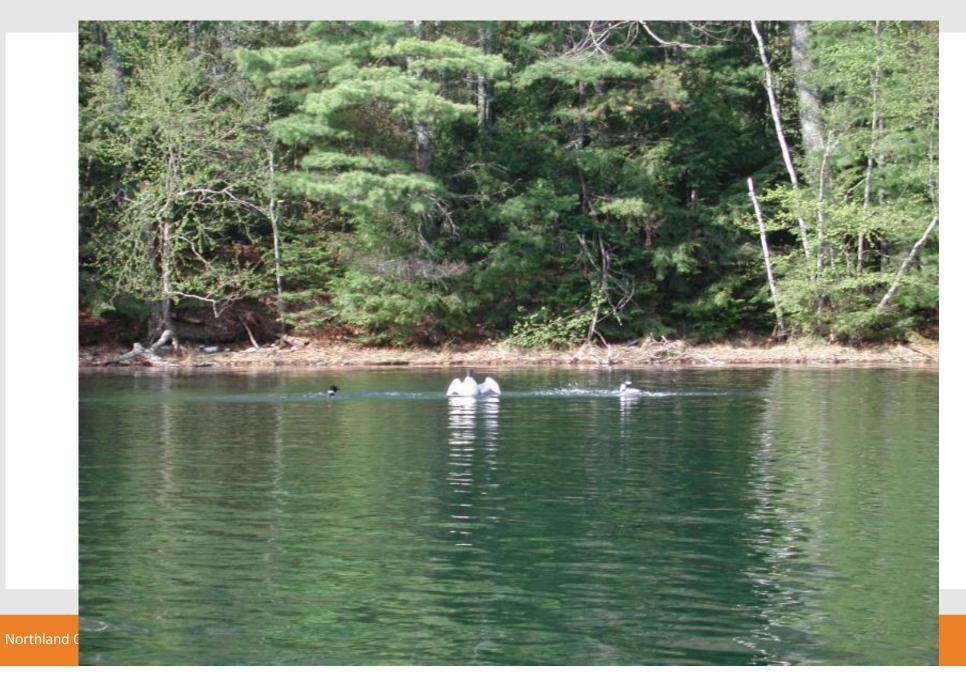
## ANNUAL LAKES MONITORING PROGRAM Territorial Pairs



## ANNUAL LAKES MONITORING PROGRAM Territorial Pairs



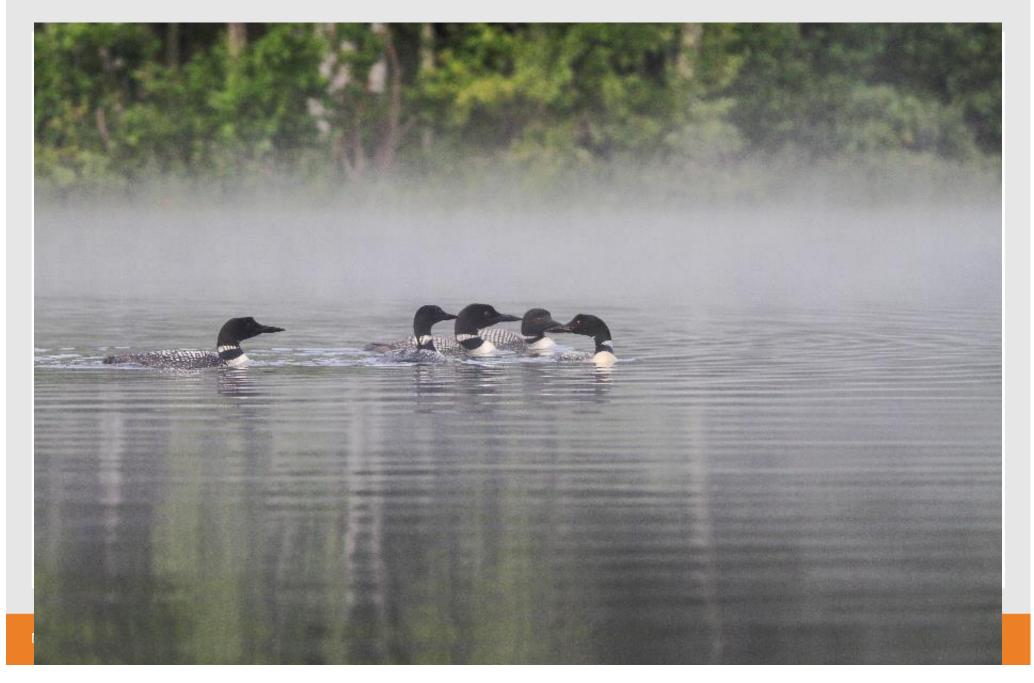


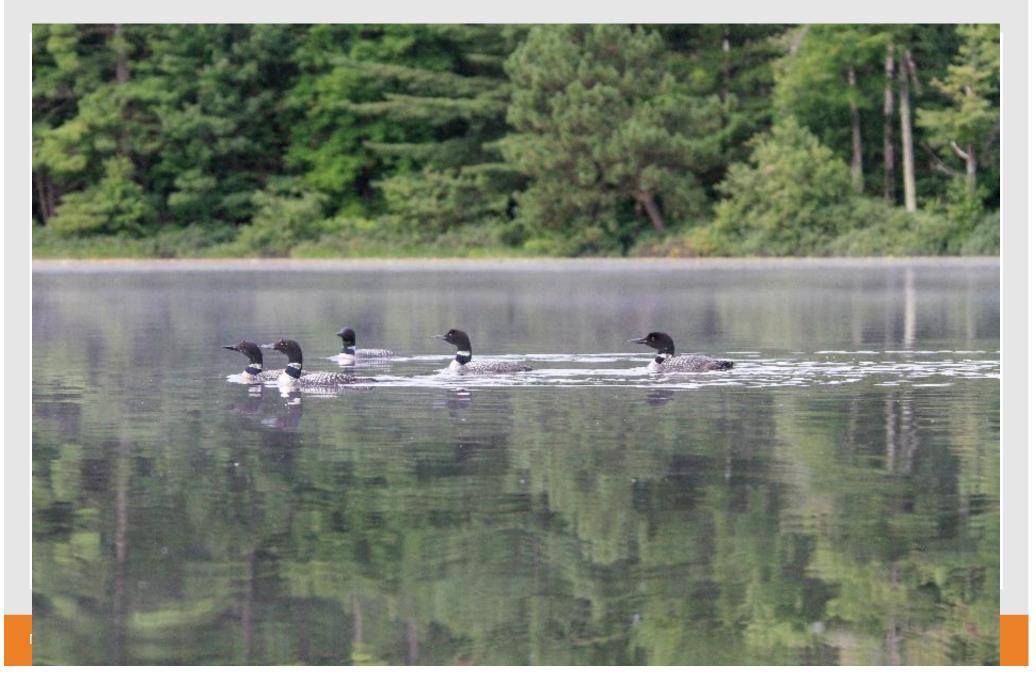




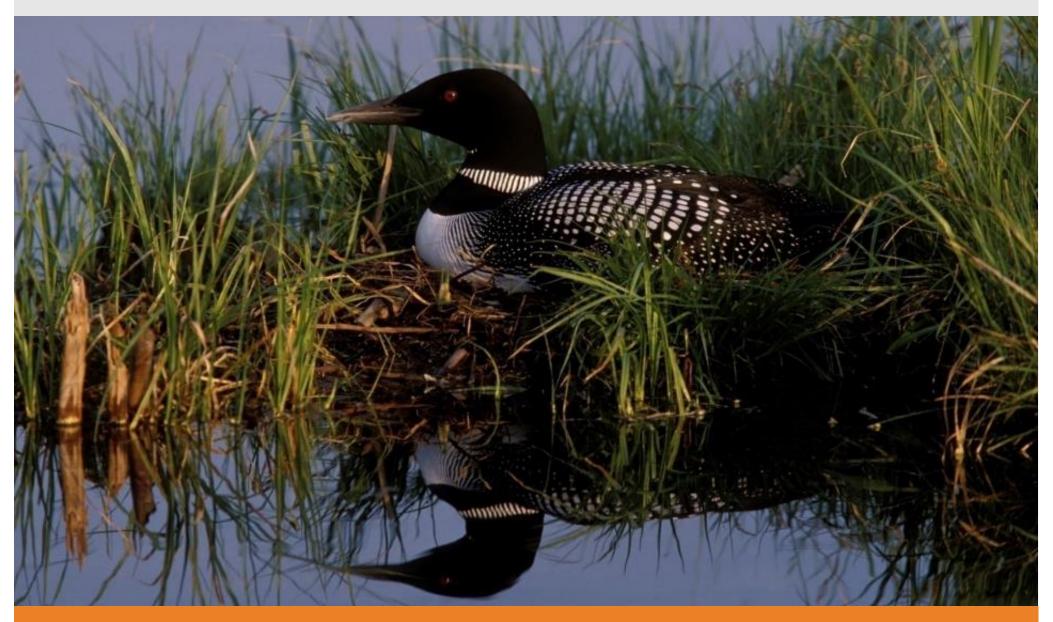
# ANNUAL LAKES MONITORING PROGRAM Territorial Dispute







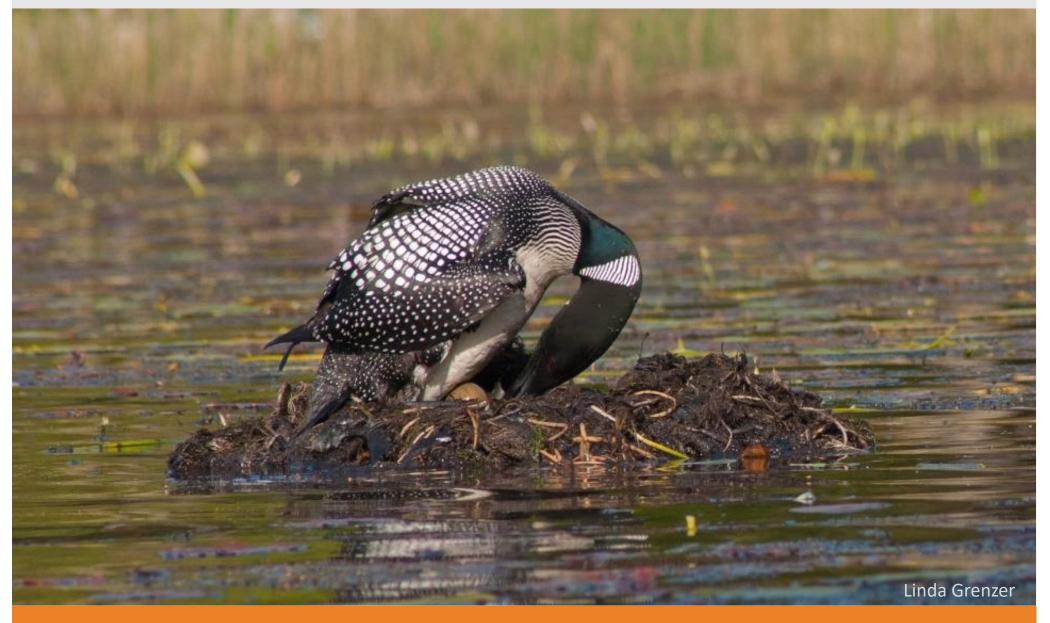
















#### ANNUAL LAKES MONITORING PROGRAM Artificial Nesting Platform



### ANNUAL LAKES MONITORING PROGRAM Defensive Postures



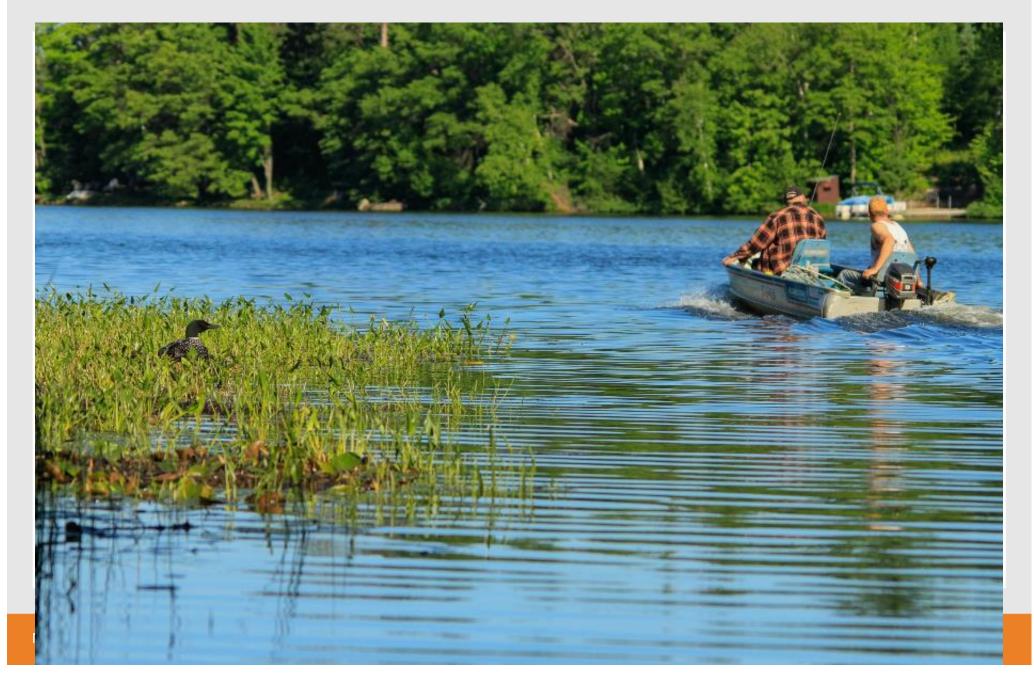
### ANNUAL LAKES MONITORING PROGRAM Defensive Postures



#### ANNUAL LAKES MONITORING PROGRAM Nesting Behavior



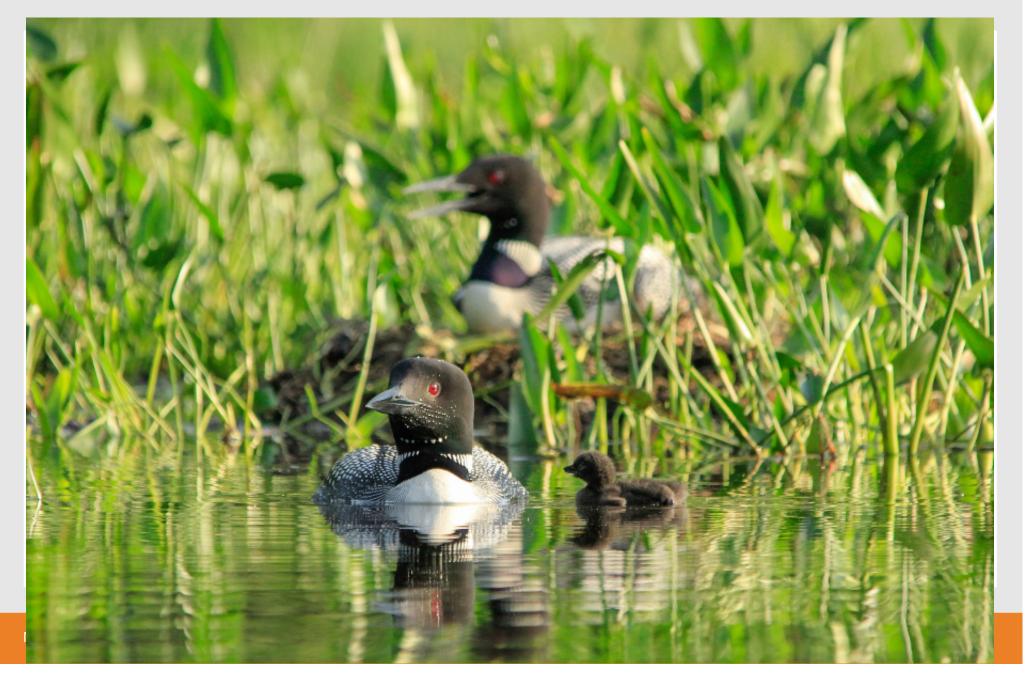
# ANNUAL LAKES MONITORING PROGRAM Nesting Behavior

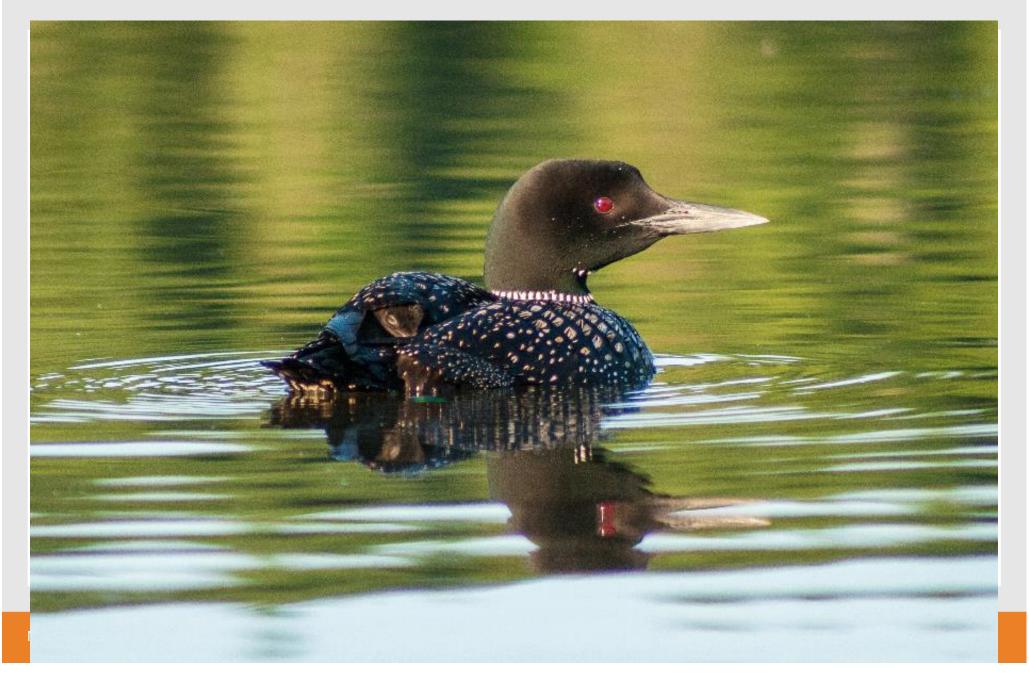


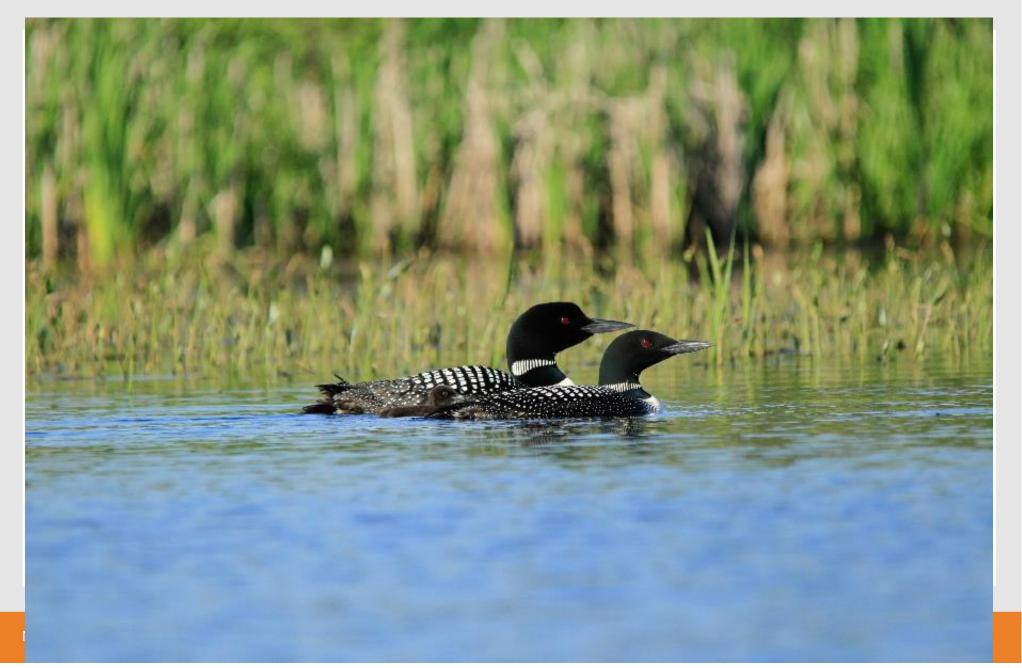
# ANNUAL LAKES MONITORING PROGRAM Nesting Behavior

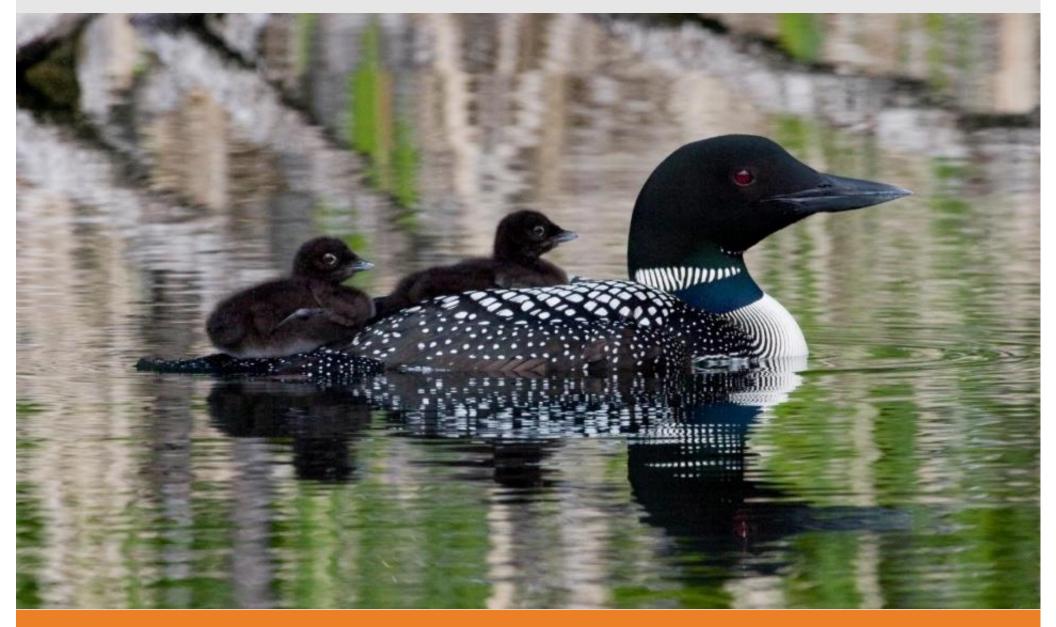


# ANNUAL LAKES MONITORING PROGRAM Nesting Behavior

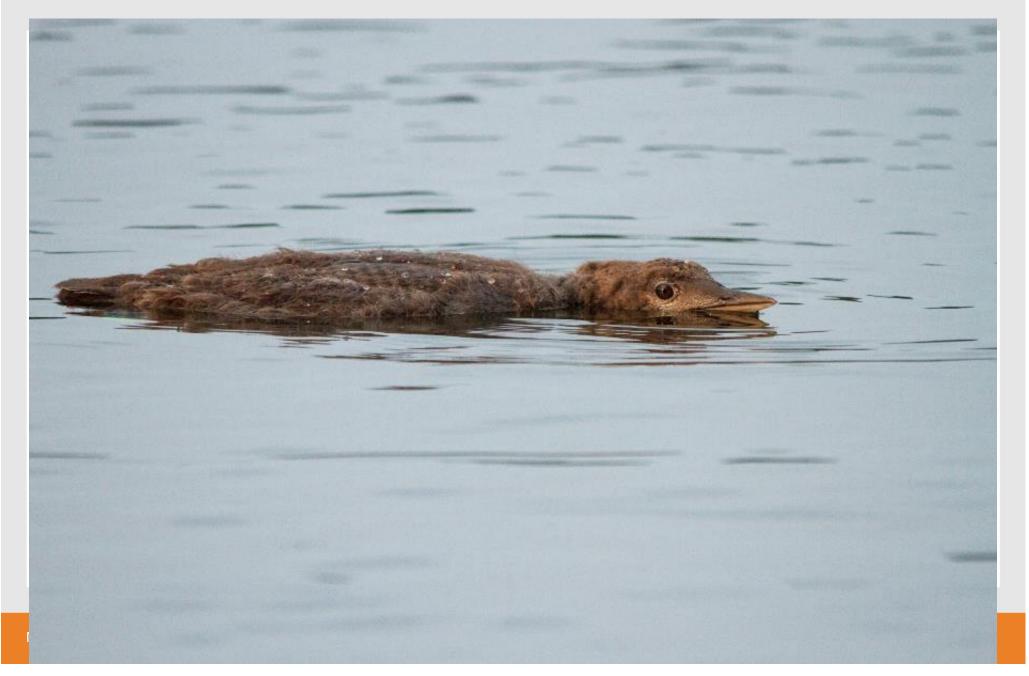






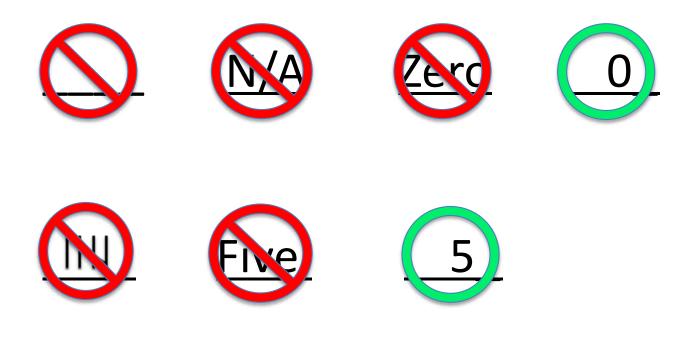


Northland College / Sigurd Olson Environmental Institute / LoonWatch





# Filling out the Monitoring Form



Northland College / Sigurd Olson Environmental Institute / LoonWatch

Filling out the Monitoring Form

- READ THE
   INSTRUCTIONS
- Fill out completely
- WBIC # can be found on your lake map
- Find a lot of great information http://dnr.wi.gov/lakes/maps

Total Caller FOO	LoonWatch • Northland in enhanced monitori ons of chicks in Augu	The second se
	Contact In	formation
Name: Ucy Loon		
Email Address: 10011ady C	e northland.ec	
Permanent Mailing Address:		Summer Address (if different):
Street Address: 10 Gavia		Street Address:
City/State/Zip: Loon (ity /		City/State/Zip:
1	2 0	
		Phone #:
low many years have you volun ke Map, Acreage and WBIC # ci tp://dnr.wi.gov/lakes/maps/	Information A	m?bout Your Lake
low many years have you volum the Map, Acreage and WBIC # co tp://dnr.wi.gov/lakes/maps/ ke Name: <u>Clearvieu</u>	Information A	bout Your Lake
Iow muny years have you volum ike Map, Acreage and WBIC # co tp://dnr.wi.gov/lakes/maps/ ke Name: <u>Clearvieu</u>	Information A	m?
Iow muny years have you volum ike Map, Acreage and WBIC # co tp://dnr.wi.gov/lakes/maps/ ke Name: <u>Clearvieu</u>	Information A	bout Your Lake
Iow muny years have you volum the Map, Acreage and WBIC # co tp://dnr.wi.gov/lakes/maps/ ke Name: <u>Clearvieu</u> wn Name: <u>H20</u>	Information A an be found at: Co Lake Size	bout Your Lake
wn Name: <u>H20</u> 1. Does your lake have an ass	Information A an be found at: Co Lake Size sociation? Yes No ng:15/2	bout Your Lake bounty Name: <u>Loon</u> (Acres) <u>500</u> WBIC # <u>555555</u>

Filling out the Monitoring Form

- If you are on your lake during migration, please fill out this page completely.
- If you are not on your lake during this time, do the best you can. Possibly recruit lake resident neighbors to help you.

Loon Observations and Migration Information

- 5. Circle only one statement. Please read instructions to help you select your answer.
  - a. No loons were seen on this lake.
  - Loons visit this lake but do not stay for the summer.
  - Loons stayed on this lake all summer but there were no signs of nesting or territorial behavior. (Usually, these loons are not in pairs.)

d. There were one or more territorial pairs present on this lake.

(Routinely observed a loon pair(s) on this lake who were not aggressive with each other.)

Both c. and d.

6. When did loons first arrive on the lake in spring? (month/day) 4 /15 depart in fall? 10 / 25

Did loons use your lake as a stop-over during spring (March 1 – April 15) or fall (October 15 – December 15) migration? Yes No
 What was the largest number seen? 15

If yes, please indicate during which migration the loons used your lake, and approximately how many birds were involved:

Spring Migration: <u>8</u> # individual loons

Fall Migration: 15 # individual loons

# Filling out the Monitoring Form

- Survey Log
  - Fill out one row for each time you observed loons on your lake
  - Write the number of floaters, territorial pairs, nesting pairs, and chicks. If zero, write "0".
- At the end of the season, use the survey log to fill out the Loon Season Summary

Date	# Floater Adult Loons	# Territorial Pairs	# Nests with Incubating Adults	# Chicks	Comments
4/15	9	0	0	0	Migrostory Isons hooting
4/21	2	1	0	0	150 pair arrived !
4/28	1	1	0	0	Heard some yodels and Fremales last night
5/7	1	2	0	0	analis in right
5/15	2	2		0	129 nest on East Bay
5/22	4	2	2	0	2 not on West Bay
5/30	1	2	1	0	Territorial disputel Nest abond on East Bay.
6/5	1	2	1	0	Bierre
6/13	0	2	2	0	East Day pair re-nested - new Mocation
6/18	0	2	P.F.	1	West Bay chick hatched (East Bay still on nest
6/22	0	2	1	1	thay sim on itsi
0/29	14	2	0	1	Terrible storm yesterday + today, 17.
1/5	The	2	0	1	of roin. East Bay nest washed out. Chick survived the HTD of July, b
1/12	de	2	0	1	Louple boots yot too close. Eagle threatening chick - loons wall + hidr chick. Social gathering of loons. What does this mean East boy por split up calling th flootics now
1/21	8	2	0	1	Social gathering of loons, What
1/30	3	1	0	1	East Bay pair split up - calling the
/12	2	1	0	1	West Bay chief is large - just a few
1	3	1	0	1	downy tatthers on its head. Chick begging for tool from parent
121	5	-		1	
			0		Chick testing its wing's.
/10	3	1	0		
18	1	1	0		D. A. HILD. S. A. I.
128	1	0	0	1	Parents departed 'Chick tremplo
75	2	0	0	1	

Weekly Loon Survey Log

# ANNUAL LAKES MONITORING

### DRUCEVI

### Weekly Loon Survey Log

Please indicate the weekly observation date, the type of residency and number of loons using your lake. Use one row for each week.

Date	# Floater Adult Loons	# Territorial Pairs	# Nests with Incubating Adults	# Chicks	Comments
4/15	뛰	0	0	0	Mignetory loons mooting
4/21	2	1	0	0	1st pair arrived !
4/28	1	Ŧ	0	0	Heard some videls and Fremales last night
5/4	1	2	0	0	number of the second
5/15	2	2	1	0.	12 NEST on East Bay
5/22	4	2	2	0	2nd nest on West Buy
5/30	Tes	2	1	0	Territorial disputer Nest abondone on East Bay.
4/5	1	2	1	0	Place 1
6/13	0	2	2	0	East Day pair re-noited - new Tocast In.
6/18	0	2	CO TER	ł	ulest Bay chick hatched (East
6/22	0	2	1	1	Day still on nest
6/29	1	2	0	i.	Terrible storm yesterday + today. That of roin. East Bay nest westerd not.
7/5	Pal	2	0	1	Chick survived the HTP of July, wild
7/12	1	2	0	1	Eagle threatening chick - lours
1/21	8	2	0	1	whill + hide chick, Social gathering of locus, What does this mean
1/30	3		0	1	East Bay pair agent up - calling them
1000	2	1	õ	1	HOARIS new West Buy chick is large - just a feller
/12		1			downy tathers on its head. Chick begging for find from percents.
121	3	1	0	1	C
1	5	1	0	1	
10	3	1	Ó	1	Chick testing its wing's
/18	1	1	0	1	
128	1	0	0	1	Parents departed ! Chick tremples
15	2	0	0	1	
/15	1	0	0	1	
725	Q	0	Q	0	Chick departed

### Loon Territory Summary

Identify each loon territory by its name or unique location on your lake, and outline this area on your lake map. For example, if you do not have a territory name, you may name them by a unique geographic reference, such as North Bay and South Bay territories. IF YOU HAVE MORE THAN 2 TERRITORIES, MAKE A COPY OF THIS PAGE, fill out and return

Total Territories on Lake: \_2\_ # Territories

Loon Territory Description: East Bay

1. Were you able to locate the nesting site? Yes No

If yes, please indicate the type of nesting site used:

Island On/near mainland shore Artificial Nesting Platform Different Lake Other:\_\_\_\_

- 2. What type of ownership is the land where the nest is located?
- Public Private Unknown
- 3. Did the eggs in the nest fail to hatch? Yes No

If yes, how was the nest lost?

- \*Predation by:\_\_\_\_\_\_ Water level change Other: \_\_\_\_\_\_\_Unknown
- 3a. Was there a 2<sup>nd</sup> nesting attempt? (Ves/No) A 3<sup>rd</sup> nesting attempt (Yes/No) if yes, did the nest fail to hatch? (2<sup>nd</sup> attempt (Ves/No); 3<sup>rd</sup> attempt (Yes/No) Did loons re-nest at the same location? (2<sup>rd</sup> attempt (Yes/No); 3<sup>rd</sup> attempt (Yes/No) If no, provide new location on map and label "2<sup>nd</sup> Attempt" and "3<sup>rd</sup> Attempt".

Loon Territory Description: West Bay

1. Were you able to locate the nesting site? Yes No

If yes, please indicate the type of nesting site used:

(sland) On/near mainland shore Artificial Nesting Platform Different Lake Other:

2. What type of ownership is the land where the nest is located?

Public Private Unknown

3. Did the eggs in the nest fail to hatch? Yes No

If yes, how was the nest lost?

\*Predation by:\_\_\_\_\_\_ Water level change Other:\_\_\_\_\_ Unknown

3a. Was there a 2<sup>rd</sup> nesting attempt? (Yes /No) A 3<sup>rd</sup> nesting attempt (Yes/No) If yes, did the nest fail to hatch? [2<sup>rd</sup> attempt (Yes/No); 3<sup>rd</sup> attempt (Yes/No) Did loons re-nest at the same location? [2<sup>rd</sup> attempt (Yes/No); 3<sup>rd</sup> attempt (Yes/No) If no, provide new location on map and label "2<sup>rd</sup> Attempt" and "3<sup>rd</sup> Attempt"

## Filling out the Monitoring Form

	Tremoles last night	COPY OF THIS PAGE, fill out and return
0	0	Total Territories on Lake: # Territories
1	O. The nest on East Bay	Loon Territory Description: East Bay
7	0 2nd nest on West Bay	1. Were you able to locate the nesting site? Yes No
6		If yes, please indicate the type of nesting site used:
1	O Territorial dispute! Nest abond	Island On/near mainland shore Artificial Nesting Platform Different Lake Othe
		<ol><li>What type of ownership is the land where the nest is located?</li></ol>
and see all the second	0	Public Private Unknown
2	East Day pair re-neuted - new	3. Did the eggs in the nest fail to hatch? Yes No
4	location.	If yes, how was the nest lost?
T	1 West Bay chick hatched , East Bay still on nest	*Predation by: Water level change Other: Territorial
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3a. Was there a 2 <sup>nd</sup> nesting attempt? (Yos)/No) A 3 <sup>rd</sup> nesting attempt (Yes/No)
		If yes, did the nest fail to hatch? [2 <sup>nd</sup> attempt (Yes/No); 3 <sup>rd</sup> attempt (Yes/No)
0	Ternible storm yesterday + today. Tir	Did loons re-nest at the same location? [2 <sup>rd</sup> attempt (Yes/No); 3 <sup>rd</sup> attempt (Yes,
U	of rain. East Bay nest washed out.	if no, provide new location on map and label "2nd Attempt" and "3rd Attempt".
0	Chick survived the HED of July, but	c
<u> </u>	l couple boats got too close.	Loon Territory Description: West Bay
0	Eagle threatening chick - loons wall + hide chick.	1. Were you able to locate the nesting site? Yes No
0	1 Social gathering of longs What	If yes, please indicate the type of nesting site used:
0	1 Social gathering of loons, What does this mean?	(sland) On/near mainland shore Artificial Nesting Platform Different Lake Othe
0	East Bay pair split up - calling the	2. What type of ownership is the land where the nest is located?
0	flactice and	Public Private Unknown
		3. Did the eggs in the nest fail to hatch? Yes No

# ANNUAL LAKES MONITORING

### Weekly Loon Survey Log

Please indicate the weekly observation date, the type of residency and number of loons using your lake. Use one row for each week.

Date	# Floater Adult Loons	# Territorial Pairs	# Nests with incubating Adults	# Chicks	Comments
4/15	4	0	0	0	Willington Isons program
4/21	2	1	0	0	150 pair arrived!
4/28	1	X	0	0	Heard some yodels and themales last night
5/7	1	Z	0	0	DENORTES POL TOUT
5/15	2	2	Rai Innis	0.	120 nest on East Bay
5/22	4	2	2	0	2 nest on West Bay
5/30	194	2	1	0	Territorial disputel Nest abandor on East Bay.
6/5	1	2	1000	0	State of the state of the
6/13	0	2	2	0	East Day pair retreated - news
6/18	0	2	E TERRA	1	West Bay child hatched (Fast Bay still on pest
6/22	0	2	1	1	Lond Run Du 1631
0/29	17	2	0	ast.	Terrible storm yesterday + today. Time
1/5	p.	2	0	1	Chick sorvired the HED of July, but a
7/12	11	2	0	1	Eagle threating shick - sons
1/21	8	2	0	1	Wall + hide chick. Social gethering of loons, What does this mean? East they per split up - calling them
7/30	3	1	0	1	East Day pair split up - calling them
/12	2	1	0	1	HEATHIS NOW West Bay thick is large - just a true downy tathers on its head.
/21	3	1	0	1	Chick begging for field from parents.
71 1	5	1	0	1	and the second states of
710	3	1	Õ	1	Chuck testing its wings
/18	1	1	0	1	The second second
128	1	0	0	1	Parents departed ! Chick Stremolas
15	1_	0	0	1	
/15	1	0	0	1	
705	0	0	0	0	ruik departed.

### Loon Season Summary

' You must complete this table to have your data included in the report. If you do not see loons, write "0".

Number of Territorial Pairs present on this lake:	2
Number of Territorial Pairs with 1 or more nest attempt:	2
Number of Territorial Pairs with successful hatch	1
Total Chicks Hatched on this lake:	
Total Chicks Fledged (survived to 8 weeks):	
Number of Floaters present on this lake:	8
Number of Nest Locations Determined:	3

Nest Location Name	# of Nest Attempts
East Bay 1	1
East Bay 2	1
West Bay	

k you for participating in the 2020 LoonWatch program. For 42 years LoonWatch has been gathering dat Loon Ranger volunteers, and currently we receive data from YOU and over 400 other Loon Rangers who for more than 300 lakes in Wisconsin. Thank you for this tremendous effort and for letting your friends, by neighbors, and others know what they can do to protect our beautiful symbol of the North Woods!

- 20		- Stort	0	0	tremales last night		
5/7	1	2	0	0			Service And
5/15	2	2	-	0.	122 nest on East Bay	plete this table to have your data included in the	report. If yo
5/22	4	2	2	0	I'm nest on West Bay	erritorial Pairs present on this lake:	7
5/30	1	2	1	0	Territorial dispute! Nest abording	e(	4
6/5	1	2	1	0		erritorial Pairs with 1 or more nest attempt:	1
6/13	0	2	2	0	East Day pair re-nested -new	Serritorial Pairs with successful hatch	
6/18	0	2		10	West Bay chick hatched (East Bay still on nest		
6/22	0	2	1	1		Hatched on this lake:	
0/29	194	2	0	I	Terrible storm yesterday + today. This of roin. East Bay nest washed out.	Fledged (survived to 8 weeks):	1
7/5	1	2	0	I	Chick survived the HTD of July, but a		
7/12	d	2	0	1	Louple boats got too close. Eagle threatening chick - loons wail + hide chick.	loaters present on this lake:	8
7/21	8	2	0	I	wall + hide chick. Social gathering of loons, What does this mean? East Day par split up - calling them	Vest Locations Determined:	3
1/30	3	1	0	1	East Bay par split up - calling them floaters now		2
/12	2	1	0	1	Heathrs now West Bay chiefe is large - just a few downy tasthers on its head.		
121	3	1	0	1	Chick begging for food from paravits.		North State
1	5	1	0	1			
10	3	1	0	IC	Chiek testing its wings		
18	1	1	0	1			
	A Low management of the		and the second se	The second second second second			

Filling out the Monitoring Form

Use the comments section to communicate observations and/or concerns you have that might effect loons. Comments

I am concerned about future development near the East Bay nesting site. I am planning to contact the new property owners & give them LoonWortch fact sheets & invite them to our lake association meeting.

I am also concerned about our lake's water levels. When would an artificial nesting platform be appropriate?

# **Chick Phenology**





# 4 Day Old Chicks Linda Grenzer



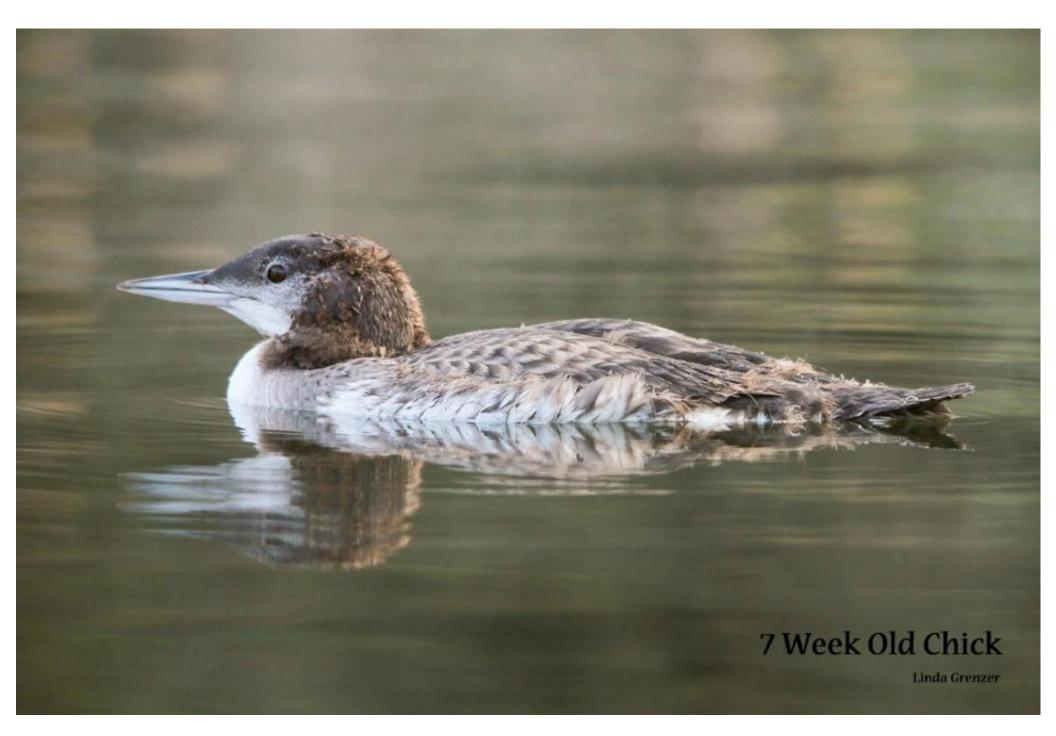
















# Spring



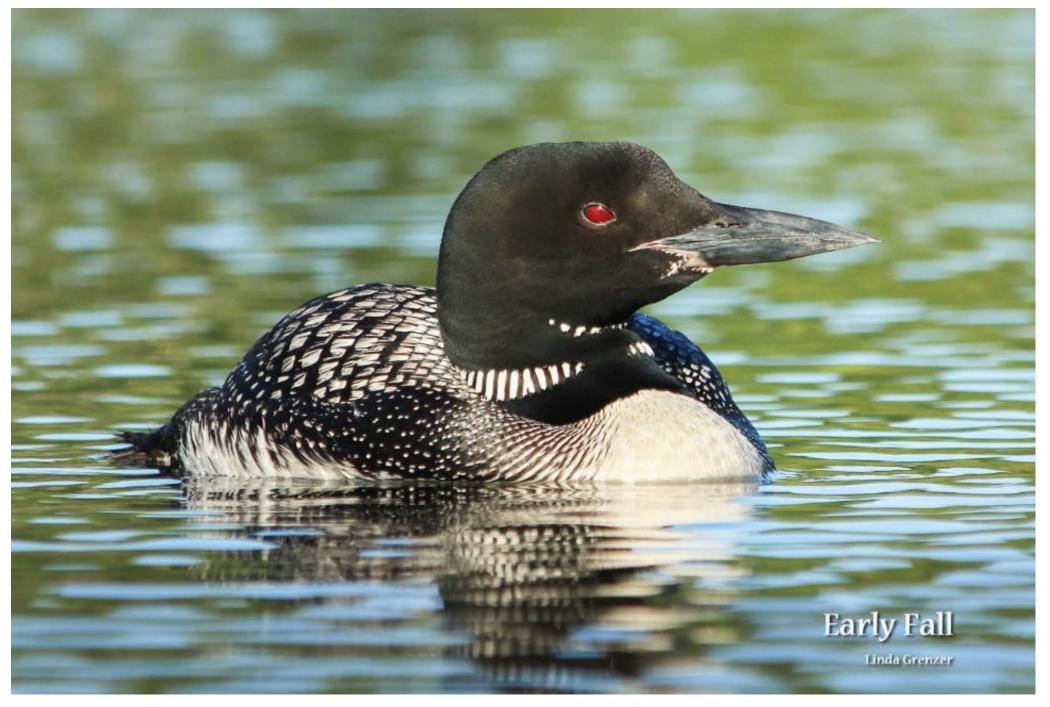
# Summer



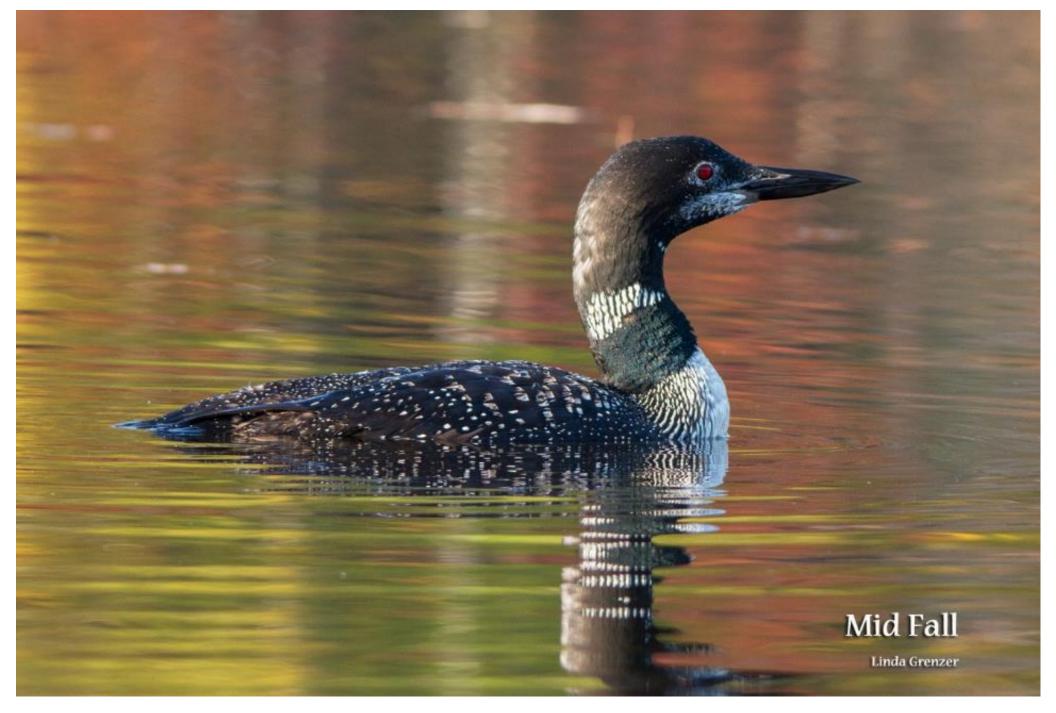
# Late Summer



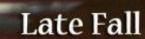
# Early Fall



# Mid Fall



# Late Fall



Linda Grenzer

# BECOME A LOON RANGER Contact Erica LeMoine loonwatch@northland.edu 715-682-1220

The intensive nurturing, observation and protection provided to loons by volunteers across the continent is unprecedented...

What Loon Rangers are protecting is not just loons but a whole aesthetic: the loon, the forested shores, the clear cold water...

Terry Daulton