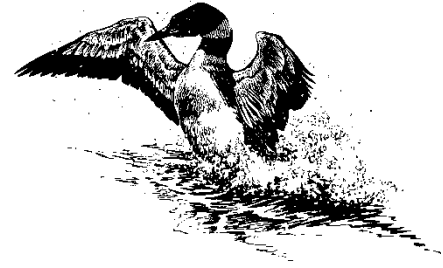


Minnesota Loon Monitoring Program

Minnesota Department of Natural Resources
Nongame Wildlife Program



INSTRUCTIONS

WELCOME!!! Thank you very much for participating in this year's Minnesota Loon Monitoring Program (MLMP). For those returning, we appreciate your continued participation. We are counting on you to monitor your lake(s) ONCE any day between the survey dates provided on your data form, typically the last week of June through the first week of July. We hope that your day is successful and enjoyable. Please read these instructions carefully.

IF YOU HAVE ANY QUESTIONS, CONTACT YOUR INDEX AREA COORDINATOR:

Aitkin/Crow Wing counties Karen McLennan, Brainerd, 218-203-4352, karen.mclennan@state.mn.us

Becker County Nettie Cole, Bemidji, 218-308-2620, nettie.cole@state.mn.us

Cook/Lake counties Bryonna Persing, Eveleth, 218-735-3962, bryonna.persing@state.mn.us

Itasca County Bryonna Persing, Eveleth, 218-735-3962, bryonna.persing@state.mn.us

Kandiyohi County Dorie Tess, New Ulm, 507-359-6036, dorie.tess@state.mn.us

Otter Tail County Nettie Cole, Bemidji, 218-308-2620, nettie.cole@state.mn.us

BEFORE THE SURVEY

1. Recruit/contact your back-up observer

- a. If you cannot survey the lake, it is your responsibility to find a back-up observer! Take time to contact the back-up person just in case you cannot survey your assigned lake(s) for whatever reason. If you need a back-up observer and cannot find one, please call your Index Area Coordinator immediately.
- b. It is important that ALL 600 lakes are surveyed by someone.

2. Check your lake early

- a. Some lakes will be difficult to find or access and some require permission from a landowner to access (see respecting private lands below). Let your Index Area Coordinator know if you cannot get permission or are unable to contact the landowner.
- b. Take your map and check the lake a few weeks in advance, especially if this is the first time you are surveying this lake.

- c. Not all roads are “vehicle friendly”. Be cautious. If road conditions look marginal, try walking first.
- d. Make sure that the lake you have found is the correct lake. Some lakes are unnamed or are known locally under a different name. Always refer to your map for confirmation. A road atlas depicting local roads can be helpful.
- e. Mark on the map the best route to reach the lake including road numbers, distances, and landmarks. Also note any landowners you contact for permission.
- f. Practice scanning lake with binoculars. Loons that are ½ mile away can be difficult to “pick out”, especially if there are any waves. Practice scanning the lake surface with binoculars, look for the white breast of the loon, look for black dots that move and disappear each time you scan. **Practice, Practice, Practice.**

3. Respecting private lands

- a. If the only access to the lake is through private land, ask for permission from the landowner before crossing their land. Make notes of who you talked with and their contact information for future surveys.
- b. If landowners have questions, feel free to give them a copy of the MLMP brochure and the contact information for your Index Area Coordinator.

THE DAY OF THE SURVEY

1. When to Survey

- a. Any day between the survey dates provided on your data form.
- b. Survey your lake(s) between 5:00 a.m. and 12:00 noon.
- c. Do not survey in heavy rain or whitecap conditions. Loons are very difficult to see in choppy waves and are next to impossible to see in whitecaps or very large waves. If the weather is bad, reschedule your survey for another day within the survey dates. Watch the forecast and plan accordingly.
- d. Ideal survey conditions are days with NO WAVES, NO WIND, and the lake is SMOOTH AS GLASS. Note that winds tend to be calmer earlier in the morning compared to later in the day.

2. What you will need to bring

- a. Survey instructions and forms including: data form, map, “Have you seen these birds?” form, and Volunteer Time Report form.
- b. Binoculars and/or spotting scope.
- c. A bird identification guide book. You may see other bird species present on the lake that you may want to add to your comments section on the data form. You may also see the target species identified on the “Have you seen these birds?” form.
- d. Official survey volunteer placard. We have provided a placard that you can put on your dashboard that helps explain why your car is parked where it is.

3. How long to survey your lake

- a. The amount of time it takes to survey may vary depending on your survey method (e.g. shoreline, canoe or motorboat), the size and shape of the lake and the weather.
- b. Some guidelines for how long the survey may take based on lake size:
 - i. Lakes smaller than 150 acres typically take 30 to 60 minutes.
 - ii. Lakes from 150 – 400 acres typically take 30 minutes to 2 to 3 hours.
 - iii. Lakes larger than 400 acres can take 2 to 4 hours.

MONITORING TIPS

1. What to look for

- a. Female and male adult loons are indistinguishable by feather pattern and color. Males tend to be slightly larger. Both males and females share nest and chick-raising duties equally on average; it is a myth that only the female tends to the nest and young.
- b. Adults have that iconic black and white pattern, but young will have drab gray to brown plumage: chicks up to 1 to 2 weeks of age have gray downy feathers and juvenile loons are brown and gray from 2 to 4 weeks of age and then turn gray and white after about 4 weeks of age.

2. Loon facts that will help you survey

- a. Watch loons from at least 200 feet away so that you do not disturb them.
- b. If you find a loon, watch for a few minutes to see if another adult or young loons are nearby. Loons move around or may be feeding underwater. When surveying, give loons time to come into view, but be careful to only survey the lake once. Do not stay so long that you count the same loons multiple times.
- c. Look very carefully around the adult loons; very young loons may be difficult to see and they may be found on the backs of the adults.
- d. Most breeding pairs of loons will have 0 to 2 young. Lakes smaller than 150 acres are unlikely to have more than 1 breeding pair of loons, which means that most small lakes will not have more than 1 or 2 juvenile loons.
- e. Adult loons frequently fly to other lakes for feeding and social interactions. So while you survey your lake, the loon(s) may be off the lake or “extra” loons could be visiting.

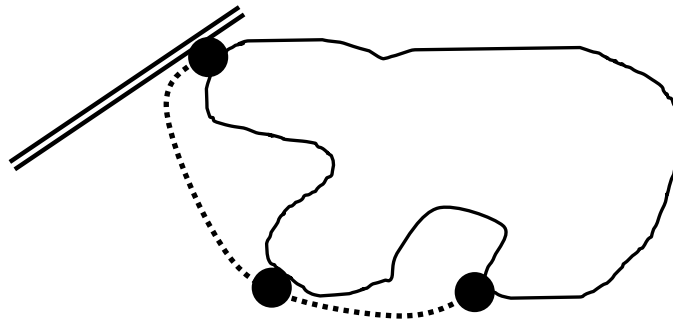
3. What to count

- a. Count all loons on the lake including those leaving or landing. Do not count loons that fly overhead and do not land.
- b. Keep track of the loons you observe on your map. Note adult loons by writing an “A” where you see the loon on the lake in the same location on your map. Note juvenile loons by writing a “J”. It may help to indicate the direction the loon is moving too.
- c. Use calls that you hear to help you find loons, but only count the loons you see.
- d. Be conservative. If you think you may have already counted a loon, do not count it again.

- e. Be careful not to count cormorants as loons. From a distance they can look alike. Use binoculars and look for white on the breast of the loon. Cormorants are entirely dark. See information below about birds that are commonly confused with loons.

4. Tips for surveying from shore

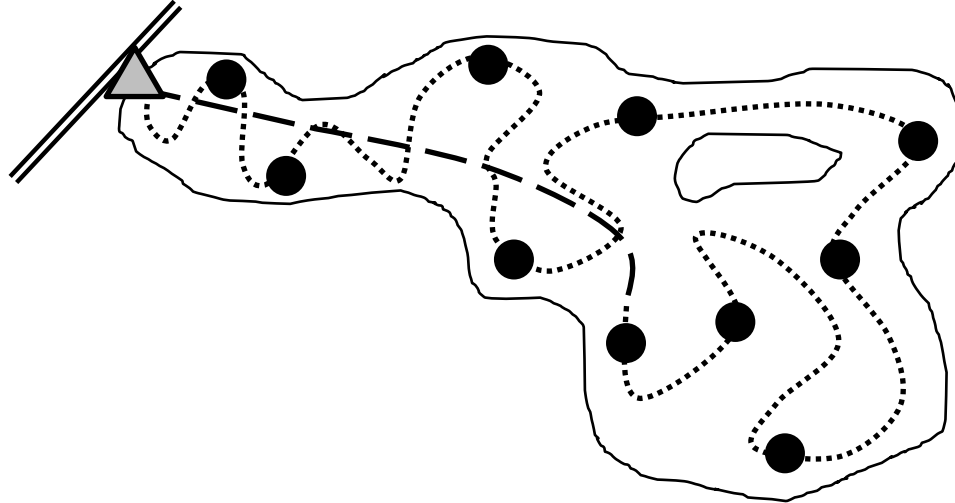
- a. Make sure you can see the entire surface of the lake. You may need to view the lake from multiple vantage points.
- b. If you cannot see the entire lake and cannot get access to view from other areas, view for a longer period of time in case there are loons “around a corner”.
- c. Example 1: Suggested route for surveying from shore. Start your survey near the road (double line) then walk (dotted line) to other locations (dots) to view areas you cannot see from the road.



5. Tips for surveying by boat

- a. Stop the boat every 400 yards to fully scan the lake with your eyes and with binoculars. If you see a loon, stop the boat and survey for a minute to see if others come to the surface. You may want to turn the motor off periodically so you can hear loon calls.
- b. Be careful not to double count loons as you move around the lake, particularly as you travel back to the boat access if you are traveling across areas you already surveyed.
- c. On round lakes stay about 200 feet from shore while following the shoreline around the lake; if it is a large lake, you may also need to boat across the center.
- d. On long, narrow lakes move back and forth (zig-zag) down the length of the lake.
- e. On large lakes (larger than 400 acres) survey under calm, no wind conditions, preferable early morning when there is less boat traffic. Ideally, have 3 people in the boat (1 driver, 2 observers) so you can scan forward, to the sides and behind boat while traveling.

- f. Example 2: Suggested route for observing by boat. Start your survey at the boat access (triangle) then cover the area well (dotted line shows the path traveled by boat), make stops periodically (dots) and be sure you check the entire surface of the lake including behind islands if a boat can travel there. When you are done, if you are at the far end of the lake (away from the access), do not count birds as you cross areas you already covered (dashed line).



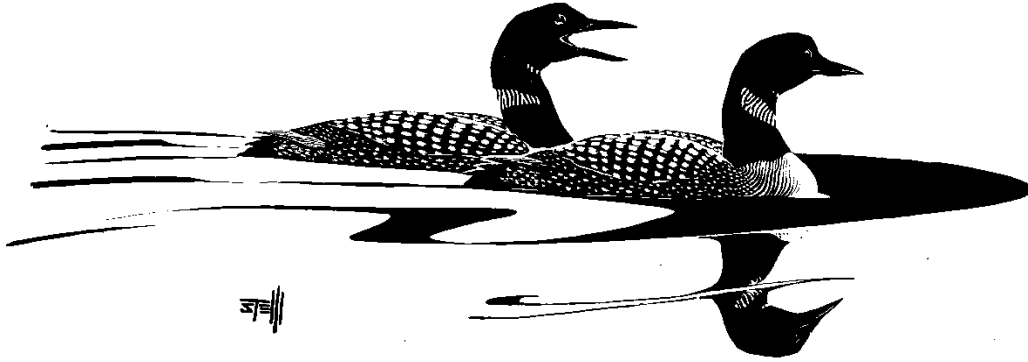
6. Additional birds to look for

- Nongame Wildlife Program is seeking reports of NESTING for the following species: bald eagles, ospreys, swans, American white pelicans, double-crested cormorants, herons, egrets, grebes, and terns. Please see "Have you seen these birds?" handout for additional information.
- You may use comment/other observations field on your data form to write additional bird species or other wildlife that you see on your lake as you survey.

7. Special issues


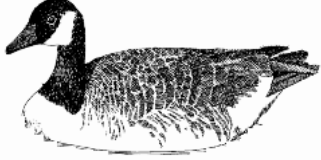





- Lakes with no loons: There are lakes within the Index Areas that may have no loons on them year after year. This may be discouraging, but we would like to emphasize how important these lakes are to our study. We want to know where loons ARE NOT as well as where they are. Remember, there are other bird species besides loons we are interested in too, so keep your eyes open!
- Eliminating lakes from the survey: If you think the lake you have been assigned should be eliminated from the survey, please let us know. The criteria for lake elimination include: no accessibility (you cannot find any landowners that will give you permission or the access that you have found is too challenging to reasonably use); if the lake is 100% covered with vegetation and there is no open water; or if the lake is so shallow that it completely freezes in the winter and therefore has no fish. A lake will not be eliminated for its size alone or if it never has had loons.

- c. Other observers on the same lake: There may be lakes with more than one volunteer assigned to survey the lake. We have been trying to let observers know if there are multiple volunteers on the same lake, so that they can work together or coordinate. We encourage folks to work together to survey. We also encourage you to take others out while you survey, because it is fun to go out with others and you could be training your back-up surveyor or someone who would be interested in helping in the future. We are always looking for people that are interested in surveying for loons!



BIRDS THAT ARE COMMONLY CONFUSED WITH COMMON LOONS AT A DISTANCE

Although adult common loons are quite distinctive, distance, poor observation conditions, and lack of familiarity with similarly-shaped birds could cause misidentification. A list of birds that may be confused with common loons along with a description and an image is provided below.

Species that may be confused with loons and a brief description	Species image
<p>Double-crested Cormorant Similar in size and shape to a loon; sits low in water, body completely black except for the orange throat pouch. When swimming it points its head and bill upward. Please let us know if you observe cormorants nesting.</p>	
<p>Canada Goose Larger than a loon; sits higher in the water and has a black neck with a solid white cheek patch. Lacks the necklace stripes that adult common loons have.</p>	
<p>Red-breasted Merganser Half as large as a common loon with a similar silhouette; the sexes differ: females are dull gray with rusty-colored heads and males have green head, white neck and rusty breast. Both sexes have crests on the back of their heads and bright orange bills.</p>	
<p>Common Merganser Similar to the red-breasted merganser, but lacks the rusty breast and crests on the back of their heads.</p>	
<p>Red-necked Grebe Smaller than a loon but has a similar silhouette; sits low in the water, gray body, red neck, and white throat and cheek. Similar to loons, red-necked grebes dive and carry their chicks on their backs. Please let us know if you observe red-necked grebes nesting or with young.</p>	
<p>Western Grebe Nearly as large as a loon with a similar silhouette; sits low in the water, solid black body, long-white neck, and pale yellow bill. Similar to loons, western grebes dive and carry their chicks on their backs. Please let us know if you observe western grebes nesting or with young.</p>	
<p>Immature Common Loon (loons born 1 or 2 years ago) Rarely seen in Minnesota during July; loons do not get their adult plumage until they are about 2 years old. Immature loons are the same shape and size as adult loons with plumage that is gray or brown with a white belly. Lacks the necklace stripes that adult loons have. At the end of the summer/early fall the young-of-the-year will have this appearance.</p>	

RETURNING THE DATA FORM

1. Data forms need to be received as soon as possible. Please return the data form and any other materials to the Index Area Coordinator the next mailing day or by July 15.
2. Items to send back to the Index Area Coordinator include:
 - a. Completed data form. Be sure that all of the data has been filled on the form. We cannot use incomplete data or data collected outside of the survey window.
 - b. Map with locations of loons observed.
 - c. Any notes regarding changes to lake access or landowner contacts.
 - d. Volunteer Time Report Form.
 - e. If you have seen any of the target bird species on the “Have You Seen These Birds?” form, send the form in.
 - f. *NEW volunteers may have additional forms to submit.
3. If you have any questions, contact your Index Area Coordinator.

FORMS SHOULD BE SENT TO YOU INDEX AREA COORDINATOR:

Aitkin/Crow Wing counties

Karen McLennan
1601 Minnesota Drive
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218-203-4352, karen.mclennan@state.mn.us

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Becker County

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Otter Tail County

Nettie Cole
2115 Birchmont Beach Road NE
Bemidji, MN 56601
218-308-2620, nettie.cole@state.mn.us

REMEMBER

1. Survey the lake under calm water conditions.
2. Ask for permission before crossing private land.
3. Be careful – wear life vests in boats and canoes.
4. Try to avoid disturbing the loons.
5. Use binoculars.
6. Bring data form, maps, instructions, something to write with and a bird book.
7. **Have fun! Thank you for your assistance and concern in helping Minnesota’s common loons!**