

2012 Seeley Lake Loon Watch

Do Loons Fight to the Death?

By Donna Love

A few years ago at the ranger station compound on the north end of Seeley Lake, two common loons began chasing each other. For 25 minutes the loons pursued each other back and forth from the canoe landing to the Forest Service dock, which is a distance of at least 100 feet or more. First one loon would lead, running on its feet and rowing through the water with its wings, while the other chased it. Then they would stop, and a hand-to-hand (well, beak to beak) battle would ensue. Finally one would break away with the other in full pursuit. A third loon looked on, and even though it wasn't actively involved, the battle often took place near it with the fighting loons sometimes running it over.



After chicks hatch, fighting for a territory decreases. Seen here is the 2012 Seeley Lake loon family cruising the lakeshore on a beautiful July evening.

Rumor has it that common loons sometimes do fight to the death. Thankfully, this long exhausting battle on Seeley Lake ended when one loon gave up and swam away. But this territorial battle left a lot of questions unanswered, especially and specifically, do loons battle to the death?

An article in the journal, *American Scientist*, (May-June 2011) summarized the results of an 18 year study of common loons in the Midwest. In the article, entitled "Marking Loons, Making Progress," researchers reported that male loons age 3-4 years old and those older than 15 almost always acquire a territory by settling a vacant lake or vacant part of a lake. However, males 5-6 years old begin to battle fiercely for territories, and that yes, male loons sometimes do fight to the death. In addition, nearly all males found dead after a battle were older territorial owners. Females on the other hand show no relationship between age and territory acquisition, hence the third loon looking on while the battle on Seeley Lake took place probably was the female.

Why do loons battle to the death? During their research, the scientists analyzed chick DNA from 47 loon families (58 chicks) and found that all 58 chicks had the same mother and father. The researchers concluded that since loons only mate within the pair, it becomes imperative for a non-mated male to fight for a mate. In

addition, in years following chick production, the rate of intrusion by non-mated males increased 60%. In other words, a productive nest is a sought after nest.

The research findings also settled another question I have often wondered about - which bird chooses the nest site? The researchers found that the male chooses the site and if the loon pair has chicks one year, he usually picks the same nest site the following year. If the nest isn't successful, he mostly switches to a different site.

Final findings from the study concerned the loon's territorial call, the yodel. It was known that this call is only made by the male, but it was a long held belief that the call was unique to each male. This study found that the territorial call can change as the bird ages and that a loon with a large body mass (not body size) has a lower frequency yodel. In other words, the stronger the bird is, usually the lower its yodel is, though even that can change within one year. In addition, territorial males respond more quickly and aggressively to yodels of lower frequency. In addition, a male changes its yodel after taking over a territory. No one knows why, but the researchers guessed that it may be to proclaim that it was now the new territorial owner.

In short – loon territory take over is common, only males in prime condition take over, males control where the nest is, yodels reveal the size and aggressive motivation of the yodeler, and males alter their yodel after take-over. As studies continue, I'm sure we'll learn more about our loon neighbors.

2012 Loon Chick Counts

To see how our Blackfoot and Clearwater loon neighbors fared last year, take a look at the included chart.

Year	Clear-water	Black-foot
2000	4	2
2001	5	4
2002	5	4
2003	4	5
2004	3	4
2005	3	0
2006	6	0
2007	1	0
2008	8	2
2009	3	1
2010	0	2
2011	1	3
2012	4	3

As you review it, it is important to note that bumps and dips naturally occur in loon numbers. Nationally, one in four loon nests fail naturally. In Montana, flood years are a major cause in the drop in the number of loon chicks, but not all areas flood the same year. So, during some years, such as 2006, the Clearwater had a banner year while the Blackfoot didn't fair so well. Conversely, in 2011, the Blackfoot did better than the Clearwater. However, during these same years the number of chicks in the state of Montana has remained roughly the same at about 40 chicks per year. Last year in 2012, 46 chicks survived in the state until the July Loon Day count, including 7 in Glacier National Park.

Although it is not a done deal, if a chick survives until the July Loon Day Count it is assumed that it survived until autumn and was able to migrate. Nationally, the chick to nest survival ratio of 48% is considered a healthy loon population. In 2012, Montana had 71 nests, which means that the 2012 chick to nest survival ratio was about 64%, which is a healthy loon population.

Although it does not give the total picture since a series of years (not just any one given year) gives a more complete picture, individually this same chick to nest ratio can be applied to the Clearwater and Blackfoot areas separately. For 2012, the Blackfoot area (with an average of four possible nests) had a chick to nest ratio of 75%, and the Clearwater (with an average of six possible nests) had a chick to nest ratio of 66%. So, in 2012 both the Clearwater and Blackfoot areas had healthy loon populations.

In addition, in the past 13 years (2000-2012) the Clearwater area produced on average 3.6 chicks per year and the Blackfoot area produced 2.3 chicks per year. If those numbers are applied to the chick to nest/ratio assuming that every nest site was used every year, the Clearwater with six possible nest sites had a cumulative chick to nest ratio of 60%, and the Blackfoot with four nest sites had a cumulative chick to nest ratio of 57%. Those numbers are still good. The Montana Loon Society and the Common Loon Working Group closely watches these numbers as an indication of how our loons are fairing in each area. A drop below 48% over a sustained time would be cause for concern.



2012 Loon Ranger Mike Strickland cares for loons in the Clearwater and Blackfoot

Hopefully, with your help obeying nesting signs and spreading the word about our loons, all our beloved lakes will continue to have healthy loon populations. Another way to help is to join the Montana Loon Society or purchase the Montana Loon Society specialty loon license plate available wherever state license plates are sold. \$20.00 of each plate sold will go to loon management in Montana.

To read past Loon Watch articles about the Blackfoot and Clearwater loons, go to my web site, www.donnalove.com and click on “Other Writings.” To learn more about Montana’s loons, please visit the



The Montana Loon Society Specialty License Plate is available at county courthouses around the state of Montana. Buy one for your vehicle and proudly display your love and concern for loons.

Montana Loon Society web site at www.montanaloons.org, or find us on Facebook at www.facebook.com, then search “Montana Loon Society.”

On Facebook you can get announcements and see up-to-date photos, as well as post your own loon stories and photos. In addition, please plan to attend the Loon and Fish Festival in Seeley Lake on Saturday and Sunday of Memorial Day weekend, May 25 and 26.

Have a safe, fun summer – and let’s be watching out for our loons!