

Loon Watch 2000 Part I

By Donna Love

Common loons are goose-size diving birds known for their black and white breeding plumage and haunting calls.

They mostly live in Canada, but about 200 make Montana their home for the summer. They are listed as a "Sensitive Species" because there are so few of them.

About half of Montana's loons form nesting pairs. Most nest north of Missoula and west of the Continental Divide. Occasionally a few birds are seen east of the Rocky Mountains.

Last year Montana had 29 successful nests that produced 42 chicks. In the fall loon chicks migrate to the ocean where they stay for three years.

Chick production is important because only about 30 percent of the hatched chicks survive life on the ocean to return to their inland lakes.

That means that out of the 42 chicks hatched last year only 12 or 13 will return to our state. These will become our nesting loons of the future.

The state's production was average for recent years, but the Clearwater Drainage had a disappointing season. Only three of our five lakes produced a total of four chicks.

That's low. The drainage usually averages seven chicks and has had as many as nine.

It is known that loon nests fail naturally about once every four years. Do our numbers reflect "one of those years" or should we be concerned?

Here's our loons' story. You decide.

Loon Lake Stats

The loon lakes in the Clearwater Drainage include Salmon, Placid, Seeley, Alva and Rainy Lake.

All are capable of supporting loon families. One other lake, Inez, is big enough, but it is no longer viable because it has not had nesting loons since 1979 when a high concentration of homes destroyed their nesting habitat.

Salmon Lake has also been unsuccessful for several years. Loons last nested there in 1997, but the nest has not produced chicks since 1996.

The reason for this is not known. Early on it was thought that aggressive bald eagles caused their lack of production. More recently human disturbances (boaters and fishermen inside the loon buoys) are cited as the possible cause.

Nesting is the loon's most critical time. A loon cannot defend itself easily on land so if a disturbance comes near they slide off the nest into the water.

This leaves the eggs without protection from weather or predators. If the disturbance stays too long the nest may be abandoned.

After the chicks hatch, loon parents can move their family around the lake as necessary, but keeping their nests sites undisturbed is important.

Thankfully, we still have four remaining loon lakes, but each has their own set of complications.

Placid Lake is surrounded by state land with a host of summer cabin leases, though most of the cabins are not used until later in the summer.

The fun (and scientifically important) thing about Placid is both the female and male are banded. (13 of Montana's loons were banded in a banding program, which took place in 1996 and 1997.) Every year since, Placid Lake's loons have returned to nest.

Seeley, Alva and Rainy Lake are slightly more protected because uninhabited Forest Service land surrounds them, but spring camping and fishing during nesting season is increasing.

It is unfortunate for Alva that the Forest Service put their campground at the north end of the lake where the boat launch is directly across the lake from the nest site. This makes the nest highly susceptible to human disturbance.

Rainy Lake is a smaller lake that is designated "non-motorized," but it has a Forest Service "dispersed campsite," that gets a lot of use in the summer, too.

Loon buoys on both lakes help keep the nest undisturbed, but educating the public about obeying the signs is needed.

Seeley Lake, the largest of our lakes, has already lost two nesting territories.

Old-timers tell of a long lost nest in the southern bay. Another nest site north of Big Larch Campground was used until 1996.

Nevertheless, Seeley still has one loon territory in the backwaters of the lake on its north end. This is one of the most easily protected sites in the drainage because it is surrounded by marshy waters and ringed by thick willows.

This is where we will begin.

Loony Loons

The year started as usual for Seeley Lake. The first loon was seen on April 13. The loon could yodel, a male loon's territorial call, so we knew it was a male.

Loons are most vocal in the spring while defining and defending their territory. On the evening of April 26 three loons were on the lake making a racket.

Two of the loons started charging around standing upright using their wings in a rowing motion to help propel themselves across the water. As they ran they made large swooping curves moving back and forth in an unconventional figure eight pattern.

At first it was amazing, then comical and then we wondered just how long they could keep it up. They continued for half an hour non-stop. Finally the one being chased flew away.

Year's ago people thought this behavior was the loon's mating dance. Now we know that male loons do this to prove which one is strongest.

Our winner rejoined the other loon. Was this the same pair as last year? Maybe, but without leg bands it would be impossible to tell.

The adult female and her two chicks on Seeley Lake were also banded in 1997, but the adult was found dead off the coast of California in 1998. The chicks have yet to surface.

On May 12 our pair tried to nest on a small peninsula of grass and reeds by the inlet of the Clearwater River at a site used years ago.

If they had stayed there it would have been hard to protect them from boater disturbance especially as canoes on the Clearwater Canoe Trail paddled out of the river onto the lake.

When the high-elevation runoff occurred in mid-May the loons moved into the backwaters.

We couldn't see the nest from the Forest Service Viewing Blind as we had in past years, but we were fairly sure our loons were nesting because we could see them coming and going from a spot hidden behind an island of cattails.

Hi Ho, Silver, Away!

In the eastern United States several states hire "loon rangers" to care for their loons. Loon Rangers count loons, identify nesting territory, sign nest sites and help educate the public about loons.

The Montana Loon Society (MLS), Montana's loon monitoring group, has long dreamed of a time when we might have our own Loon Ranger. This past summer our dream finally came true.

The Common Loon Working Group (CLWG), which formed in 1998, provided the vehicle for it to happen. The group, made up of several wildlife biologists around the state, applied for a grant to start the Loon Ranger Program.

With money mostly from Avista Corporation and Montana Fish Wildlife and Parks (MFWP) our Loon Ranger Pilot Program got underway. The Clearwater Drainage and Ovando area, which also has several loon lakes, were chosen to receive the first Loon Ranger.

Notices advertising the six-week job were sent to schools and universities in the area. Tim Dykstra, a graduate student in Ornithology at the University of Montana was hired.

Tim's training started in May. His first weekend on the job included helping wildlife biologist, Lynn Kelly (Montana's "Loon Lady" and President of MLS), put loon buoys on Alva, Seeley, Salmon, and Placid Lake, as well as on Upsata Lake in the Ovando area.

The next week we received a call from Gael Bissell, the wildlife biologist in Kalispell who heads the CLWG.

Two loons were seen on Little Doney Lake, a little known lake north of Ovando. Confirmation of a nest site was immediately needed because the lake sat on Plum Creek Timber Company land in the middle of an ongoing timber cut.

Most loon lakes in the Ovando area, with the exception of Upsata, are on private land and require little public management. The lakes are usually small in size and out of the public's reach.

Little Doney was just such a lake, but possible disturbance from the logging operation made it susceptible to a nest failure.

Geof Foote, the MLS Ovando Area Coordinator who had reported the Little Doney pair was away, and Lynn wouldn't be able to come over for two weeks. Was there anything we could do to help?

We made arrangements to take the Loon Ranger to Little Doney on the next weekend, which also happened to be the day of the Montana Spring Loon Count.

After counting loons on Marshall Lake, high on the eastside of the Mission Mountains (no loons), Seeley Lake (two loons) and Tote Lake on the way to Cozy Corners (no loons) we met Tim in Ovando to accompany him to the site. Lindsay, his fiancée joined us.

A Chick Named Tim

It would have been hard to find Little Doney without my husband, Tim's help, but he led us right to it. When we reached Big Doney, next to Little Doney, we searched for loons, but didn't find any.

The surrounding ranchers use Big Doney for irrigation so fluctuations in water level leave it loonless.

As we approached Little Doney on foot we heard a loon call. We kept our distance and skirted the small 10-acre heart-shaped lake.

When we could see a good portion of the lakeshore we stopped. We were expecting a long search, but Loon Ranger Tim, using his binoculars, found the nest before we even had time to put up our spotting scopes.

It was a beautiful nest. It wasn't at all like the hastily matted down muddy half nests that our Seeley Lake pair always built. This was a full mound of golden yellow vegetation with a perfect saucer shaped depression on top that held two large olive green loon eggs.

The parents were swimming watchfully near the nest. We backed away even further and one loon returned to sit on the eggs.

Lindsay and I told the Tims that if the eggs survived we would name the chicks after them.

After informing Gael of our findings she contacted Plum Creek Timber Company. In a generous act of conservation, Plum Creek suspended logging in the area until the chicks hatched.

On June 13 one chick was seen swimming in the lake with both adults. Loon Ranger Tim retrieved the remaining egg on June 16 for testing. We named the lone loon chick, Tim, thus fulfilling our promise to both Tims.

Hidden Nests

On Sunday, May 21, Loon Ranger Tim, once again accompanied by Lindsay (We got two loon rangers for the price of one.) confirmed the sight of our nest on Seeley Lake by canoeing a short distance into the backwaters, spying the nest and beating a hasty retreat.

The nest was right where we suspected tucked behind the cattails and unable to be seen from the viewing blind. We would just have to wait a month to see if the chicks hatched.

In the meantime, two loons were seen on Salmon Lake in May, but no nesting attempt was ever made and the loon buoys were removed in June. For the rest of the summer only one loon was occasionally seen on Salmon.

The first nest attempt at Placid, Alva and Rainy Lake failed. It is unclear why. It was a dry spring and some speculate that the nests succumbed to low water levels, which can be as harmful as flooding.

Another theory is that it was a warm spring, thereby causing more human use of the lakes.

Loons can renest if it is early enough in the spring, but the second nest is less likely to produce chicks. All three of the nesting pairs tried again. Alva Lake's second nest failed right away.

Loon Ranger Tim and I paddled to the nest to see if we could find any evidence as to why it failed. We did not find any proof of disturbance or loon eggs or shells so it is impossible to say why it failed.

Loons only lay two eggs, which are incubated for 28/29 days. We now had only three pairs of nesting loons in the drainage. The loons on Seeley Lake were still incubating on their first nest, and Placid and Rainy were staying with their second nest attempt.

We would just have to wait to see how the nests fared.

Loon Watch Seeley Lake

May 24, 2001
Seeley Swan Pathfinder
Seeley Lake, Montana

Seeley Lake Loon Watch 2000, Part II

By Donna Love

In Part I we learned that the loons in the Clearwater Drainage had a difficult time settling into their nests last spring. At the end of May only three nests were established on three lakes.

Seeley Lake was on its first nest attempt. Placid Lake and Rainy Lake were on their second. Alva Lake had both a first and second nest fail.

We're not sure why. It had been a dry spring so the nest failures may have been due to low water or, since it was a warm spring, it might have been human disturbance.

At any rate, only three of our six lakes had nesting loons.

Educational Opportunities

Loons incubate their eggs for 28 to 29 days. While our loons were busy incubating, we were busy educating the public about loons.

Tim Dykstra, our first Loon Ranger, monitored the nests and spent the weekends at boat launches talking with the public. He specifically targeted the lakes that had nesting loons.

Kids Fishing Day, hosted by Montana Fish, Wildlife and Parks and the Alpine Artisans' Loon and Fish Festival in Seeley Lake also provided educational opportunities.

At Kids Fishing Day children and their fishing families learned about obeying the loon nesting sanctuary signs. The nesting signs are put up to keep a nest free from disturbance.

The signs are only used during the nesting season in May and June. When the chicks hatch the signs are removed.

The children also learned about using tin or steel fishing line sinkers instead of lead. If waterfowl swallow lead sinkers it can harm the birds in the same way that it harms humans.

It effects the nervous system causing the birds to be clumsy making it unable to catch prey. A loon with lead poisoning will die of starvation.

Using tin or steel sinkers eliminates the problem. These sinkers are becoming readily available in most sporting good stores.

At the Loon and Fish Festival, Lynn Kelly, Montana's "Loon Lady," presented an informative, but fun slide show on loons.

When she discussed obeying the nesting signs, she showed a slide of a young man in a canoe inside the nesting signs. Lynn wondered out loud if she'd ever run into the person in the picture.

Imagine her surprise when a man in the audience admitted it was him before he knew better. He was not upset. He didn't mind his picture being used to teach folks how to better care for loons.

The guest of honor at the Festival was the newly mounted day-old loon chick found dead in the nest on Alva in 1999. It had been placed beside the adult loon mount on loan from the Seeley Lake Ranger Station.

The display was so stunning folks frequently stopped to comment.

The adult loon had been found dead on Alva Lake in 1989. It had been shot with a 22-caliber firearm. The Forest Service had it mounted to use for educational purposes.

The chick died of natural causes, but the taxidermist informed us that it had several spear-like cuts on its body that had to be repaired.

It is possible that the first-hatched chick attacked it as sometimes happens in nature or perhaps the parents pecked at it in an attempt to get it to move.

Little sun-dried minnows were found in the nest beside the chick, evidence that the parents had tried to care for it.

It is unfortunate that the chick died, but it was a stroke of luck that my husband, Tim and I found it while it was still in good enough condition to be worked with.

The loon mount with chick will be on display at the Loon and Fish Festival again this year. We are grateful for these avenues that help us help loons.

Don't Count Your

Chickens Before

They Hatch

Back at our loon watching duties, our three nests were doing well. So were our bald eagles.

Eagles hatch about the same time that the loons nest, so when the loon chicks are hatching the eagle chicks are getting big. We had two eagle chicks this year. We saw them in their nest tree for the first time on June 2.

Two weeks later on June 14 one lone loon chick was seen riding on its parent's back in the northeast corner of Seeley Lake. The Clearwater Drainage finally had a chick.

Loons lay two eggs, which hatch one day apart. The firstborn leaves the nest as soon as it is dry. It is safer in the water where one parent cares for it while the other parent continues to incubate the second egg.

The next day all four members of the new loon family were seen swimming peacefully in their nursery area. We were happy we had two chicks.

Lynn feels that the Nest Signing Program has helped two-chick hatches become the norm for Montana. Before the signing program started we often only had one chick per lake.

But something was amiss. It appeared that our loons were ignoring one chick. I watched and filmed them off and on for two days. On the third day only one chick remained.

Was it just my imagination that the parents favored one chick over the other? Watching my videos again, I have concluded it wasn't. One chick was definitely getting left behind.

Of course, it would take a lot of "watching" to say for sure that the same chick was always ignored, however it appeared that one chick wasn't being cared for.

Can loons be "bad" parents or did they sense that something was wrong? Was the chick ill or deformed in some way? Was there enough food to feed both chicks?

We don't know the answer to these questions, but the remaining chick thrived.

Architectural Lessons

from Antiquity

Five species of loons live in the world, the Red-throated loon, Pacific loon, Arctic loon, Yellow billed loon and Common Loon. All five species live in the northern half of the Northern Hemisphere.

Common loons live further south than the other species. They live as far south as the northern tier of the United States. That's why there are loons in Montana.

In Montana, several things including increasing human pressures and introduction of non-native species harm loons. In the eastern United States menthol mercury poisoning harms loons.

Mercury enters the air from various industry exhaust sources. It then collects in plant life and "bio-magnifies" on its way up the food chain. Insects eat the plants, fish eat the insects and the loons eat the fish.

Each critter receives a higher dose of mercury, which has the same effect on loons as lead poisoning. The loons become unable to catch fish and they die of starvation.

Most of Montana's loon lakes are healthy. Nevertheless it is always good to monitor our lakes for change.

One way to do this is to test loon eggshells for the presence of mercury so we gather egg fragments from abandoned nests.

On May 17, my 13-year old daughter, Laura, and I paddled into the backwaters of Seeley Lake to gather our eggshells. We found quite a few large pieces and both egg sacs.

An egg sac is a thin, white rubber like membrane that protects the chick from outside bacteria. One egg sac was still on the nest and one was in the water just a short distance away. We scooped it up in our fishing net.

The loon parents had moved it off the nest after the first chick hatched. If it had been left on the nest it might attract predators by its smell.

Eggs themselves are remarkable. They are made to withstand a great deal of weight, yet are fragile enough for a chick to break out.

The shell is made of tiny microscopic wedge-shaped pieces that fit tightly together much like the wedge shape bricks at the top of an architectural arch.

The Romans long ago discovered that this wedge-shape effect could hold a great deal of weight so they built their temples using "Roman" arches.

The wedge shape design makes the egg strong. Like breaking a chicken egg to make an omelet it would take a strong smack to break a loon egg from the outside, but when it is time to hatch, the egg is easily broken from the inside.

The egg tooth, a little bump on the tip of a chick's bill helps it to break the shell open. As the bill grows the egg tooth disappears.

Here a Chick,

There a Chick

After Seeley Lake's chicks hatched we still had two loon nests incubating, the one on Placid and the one on Rainy.

On June 29, Placid Lake hatched one chick. The loon ranger went to the nest a few days later to look for the remaining egg.

He only found fragments. Perhaps the loons had only laid one egg or it is possible that a predator ate the remaining one.

We waited a long time for Rainy Lake to hatch. Finally on July 11, two chicks were observed swimming on the lake with their parents.

This is the latest recorded chick hatch in Montana. The second latest was two years ago on July 6 at Alva Lake, the same year we found the dead chick in the nest.

We had the same concern about the Rainy Lake chicks as we had on Alva two years ago.

Would the chicks be mature enough to fly before the lake froze over? It takes 12 weeks before loon chicks grow flight feather and another couple of weeks for them to perfect flying.

We would just have to wait to see.

Let Us Entertain You

Back on Seeley Lake we had a banner summer for loon hospitality. Our loons frequently entertained other loons.

This occurs when the nesting season is over. Loon pairs without chicks and single loons in the area fly around to visit other loon lakes.

This is a common occurrence in Canada where large flocks of unpaired birds gather throughout the summer. It was a surprise to see so many here.

On one occasion we counted seven loons swimming together by the north beach of Seeley Lake campground. We hope it means that we have more loons, but it may reflect our higher number of loon pairs without chicks.

I was also surprised at how soon our Seeley Lake parents allowed other loons to get close to their chick. Apparently after the chicks hatch they don't mind if other loons are around.

On July 10 another interesting occurrence happened. An eagle attacked one of our loons while it was carrying a large fish.

It clearly wasn't after the chick since the chick was on the other side of the lake with the other adult.

The fish was hanging limp in the loon's mouth when the eagle swooped down. At first I thought the eagle was after the loon, but the loon dropped the fish and took a shallow dive. While the loon was underwater the eagle made a grab for the fish, but missed.

The loon came up calling, picked up the fish and swam in circles watching the eagle. The eagle swooped again with the same results.

This time the eagle flew away and the loon abandoned the fish, too. Neither the eagle nor loon returned for the fish.

Loon Ranger Tim explained that bald eagles rarely catch live fish. They are scavengers that mostly clean the lakes of dead fish.

Pike do this too, so maybe the eagles are getting a lot of competition for food from the pike. Our eagle must have been awfully hungry to have tried to make the loon give up its fish.

Later in July, our annual summer loon count was held on the 22. I was on vacation with the kids, so my husband Tim checked our lakes alone.

The loon day count resulted in 196 loons being counted by 94 volunteers on 184 Montana lakes. That's not bad when you consider that the first 'formal' loon day count began with one person in 1986.

Oh, the Weather Outside is Frightful

The rest of the summer past in a haze of smoke resulting from a bad fire season. On August 11 a Level 5 Forest Service closure shut down the areas campgrounds leaving our lakes quieter than they had been in years.

The loons probably appreciated the break, even though it was difficult on us. When the smoke cleared it was autumn and the chicks had grown flight feathers.

They began their flying lessons. The Loon Ranger, who's job lasted until mid-July, was back at school, too.

Concerned with the chicks on Rainy, I visited the lake on the morning of September 21. It was a chilly, blustery morning with snow showers. All around the lake the mountains were dusted with their first deep snow.

One adult and the two chicks were still on the lake. Then an amazing thing happened. The adult took off flying and circled the lake several times, calling the whole while.

Even when I could no longer see her I could still hear her. It seemed the loon was urging the chicks to fly.

In answer, the chicks tried, but they couldn't get airborne. After a short time the adult returned to the lake.

It is thought that loon parents begin their migration before the chicks. After seeing what happened on Rainy, and having seen one adult on Seeley Lake right up to the day the chicks were last seen I am no longer sure of that.

The adult male does leave the family, but I question whether the female leaves her chicks alone to handle the migration on their own.

The next opportunity that I had to return to Rainy Lake was almost two weeks later on October 3. It was much colder and a thin sheet of ice ringed the lake.

All three loons were gone. They had made it.

One adult and the two chicks on Seeley Lake were seen until mid October and then they too disappeared.

It had been a fun loon-watching year. Working with Tim, the Loon Ranger and his fiancée, Lindsay made it especially delightful.

Tim will be our Loon Ranger again this year and our pilot project has turned into a real program. We were so successful Kalispell got a Loon Ranger of their own.

And this year is shaping up to be a good loon year. Upsata and Little Doney in the Ovando area already have loons on their nests. Little Doney has even nested in the same nest as last year.

In our area, Alva, Seeley, and Rainy Lake have already nested. This year Seeley Lake's nest can be seen from the Forest Service viewing blind.

Placid Lake's loons are acting "nesty" and one lone loon has been seen on Salmon Lake. There's talk of putting an artificial nesting platform on Salmon in an attempt to entice a nesting pair back to the lake.

Stay tuned. Lots of fun things will be happening and I'll be looking for you at the Loon and Festival.