



Figure 1. Map of the nest sites in the observation area in 2014



Figure 2. Bald Eagle family at Camp Island on June 20, 2014

fourth molt. A one-year-old was in close proximity to the McCulloch nest all season and was often perched in the same tree as an adult. A two-year old was often seen perched on Mandel Island. A three-year-old spent the summer on the Jackson Islands and was often perched very close to the nest (Figure 3). Slant Island was in the hunting territory of a four-year-old. In 2014, I did not see a single sub-adult Bald Eagle in the area of observation or anywhere else on the lake.

Variability in the Time that Bald Eagles Leave the Nest

I was able to observe only one active nest in 2013 due to the poor breeding success that year. The lone fledgling, at the Lisee nest, branched on August 18,

2013 and left the nesting tree on August 29. With the increase in breeding success in 2014, I was able to closely observe four young birds (eaglets) at three nest sites. This provided an opportunity to make note of when the young birds reached the milestones of branching, fledging and leaving the nest tree. The time that Bald Eagles reach these developmental milestones is variable and seems to depend, to some extent, on necessity and/or local conditions. The dates on which the fledglings had clearly left the nesting tree are summarized in Table 1.

Table 1. Dates on which Fledglings Left the Nesting Tree

<u>Nest Location</u>	<u>Date</u>
McCulloch	August 3, 2014
Camp Male	August 13, 2014
Camp Female	August 19, 2014
Lisee	August 29, 2013
Jackson	September 2, 2014



Figure 3. Three year old Bald Eagle at Jackson Island on July 14, 2013



Figure 4. Adult and fledgling atop a tree remote from the McCulloch nest on August 3, 2014



Figure 5. Fledgling at McCulloch Island returned to the nest to feed for weeks after it left the nest – August 17, 2014

The McCulloch nest appeared damaged on August 1 and the eaglet was not in the nest. I did not see it again until August 3 when it was perched in a tall coniferous tree that was quite remote from the nest (Figure 4). It appeared to prefer the tall perch to the nest but it did return to the nest to feed (Figure 5). I suspect that necessity forced the young bird at the McCulloch nest to leave the nest early and skip the milestone of branching.

The nest at Camp Island is only three years old. It is a relatively small nest tucked in at the top of a Black Spruce tree. When all four birds were at the nest during feeding the quarters were cramped and the structure of the nest deteriorated quickly (Figure 6). The male eaglet at the Camp nest branched on July 29, one week before his sister. On August 13, he was on the ground but was able to fly across a small bay (Figure 7). Days later he landed successfully on a small tree. It might be that the nest became too crowded or too 'rickety' for all four birds forcing the male fledgling to leave the nest early. The other possibility is that an early attempt at flight failed and he was forced to ground. Both fledglings at Camp Island took to perches on a larger island remote from the nesting island on August 19 (Figure 8).

The Jackson fledgling lived in

a very robust longstanding nest in a dead Birch tree that is well protected from wind and weather. He still had not branched on August 12 (Figure 9). He did not leave the nest until September 2 (Figure 10).

C O M P A R I N G T H E OBSERVATIONS OF 2013 AND 2014.

Population Density of Sub-Adult Bald Eagles in the Area of Observation

The number of Bald Eagles in the area of observation was nearly the same in 2013 and 2014 despite the marked increase of breeding success in 2014. In 2013, there were six sub-adult Bald Eagles and only one fledgling for a total of seven birds of non-breeding age. In 2014, Bald Eagles produced 8 fledglings in the observation area. Not one sub-adult spent the season within the area in 2014. On the face of it, it appears that the fledglings of 2014 replaced the group of sub-adult Bald Eagles in 2013. It's possible that sub-adults are unwelcome, or their presence is actively discouraged, in breeding areas with high survival rates. I've seen breeding adults chase sub-adults away from nest sites in other years. However, I did not see any territorial behavior by the breeding adults against



Figure 6. Aggressive posturing over a cisco (Coregonus artedii) at the Camp nest on July 25, 2014.



Figure 7. The male fledgling on the ground at the Camp nest site on August 13, 2014.



Figure 8. Fledglings at Camp Island spent most of their time away from the nest after August 19.

sub-adults in 2014 because of the absence of sub-adults.

The Time to Leaving the Nest for Bald Eagles in the Area of Observation

Bald Eagle eggs hatch on

Lac La Ronge during mid-May. The hatchlings are three to four weeks old when I first see them in early June (Figure 11). At that milestone the hatchlings can thermoregulate and can be left on their own for short periods. The



Figure 9. The young male Bald Eagle at the Jackson nest still had not fledged on August 12, 2014.



Figure 10. The young male Bald Eagle at Jackson Island finally left the nest on September 2, 2014.

young eagles are fully feathered at nine to ten weeks of age after which it would be possible for them to fly (Figure 12). Young Bald Eagles can leave the nest from

as early as eight weeks to as late as fourteen weeks after hatching. (2) Therefore one would expect fledgling Bald Eagles in northern Saskatchewan to leave the nest



Figure 11. The three-week-old hatchling at McCulloch Island on June 8, 2014.

between July 20 and September 12. Males tend to leave the nest one or two days before the female regardless of hatching order. (2)

In 2013, the Lisee fledgling (a

female) did not stray from the nesting tree until August 29. In 2014, the McCulloch fledgling left the nest to a remote perch on August 3 after the nest appeared



Figure 12. The female fledgling at Camp Island was flexing her muscles on August 5, 2014.

damaged. The male and female fledglings at the Camp nest were perched on an island remote to the nest on August 19. The Jackson fledgling left the nesting tree on September 2, 2014, four weeks later than the McCulloch fledgling. The fledgling at the Jackson nest still had not branched when the McCulloch fledgling was already a highly skilled aerialist (Figure 13) and the Camp fledglings were powerful flyers (Figure 14).

The observations in 2014 suggest that the time to leave the nest is quite variable even in the same year. It's possible that the stimulus to leave the nest is driven, to some degree, by factors other than growth and development. One factor could be poor nest conditions, such as damage to the nest. Alternately, an unsuccessful early flight attempt could force the fledgling to ground. It's known that parents continue to feed a grounded fledgling and, if unhurt, the young bird will survive to eventually fly to perch in a tree. (2)

All four fledglings were hunting by mid-September.

SUMMARY

Observations of the behavior of the Bald Eagles on the Lac La Ronge in the spring, summer and fall of 2013 and 2014 revealed significant differences between the two years.

2013 stood out as disastrous breeding year for Bald Eagles when only one hatchling survived past June 15. One explanation was the abnormally severe spring weather conditions in the Northern US and Saskatchewan. This weather anomaly might have had an adverse effect on the health of the migrating birds.

2014 brought milder spring conditions and a remarkable increase in breeding success. Seven Bald Eagle pairs produced eight young that survived to leave the nest. Another observation of note was the complete absence of sub-adult Bald Eagles in the area of observation, and beyond, in 2014.

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