One University Drive Orange, California 92866 www.chapman.edu/scs/ees

School of Earth and Environmental Sciences (714) 628-7230 • Fax: (714) 532-6048

Dear Friends,

Another year has passed. Although the weather gives no hint of this, our loons are molting and preparing for their return to the lakes of northern Wisconsin. Before long, the thaw should be underway, although we seem headed for another very late ice-out. Maybe early May, like last year.

Meanwhile, the Loon Project is flourishing. In 2013 we marked 87 chicks, more than we had marked in any previous year. Gabby and Kristin, two Northland College students back for their second year in 2013, spent the fall surveying lakes in and on the outskirts of the study area, searching for the juveniles we banded. The result of their labors, together with that of Nathan and

Joel in the years before, was a wealth of resightings of these youngsters on their natal lakes and on nearby lakes that they explored after leaving their parents' care.

Juvenile resightings are valuable to us. Of course, they give us good information about the survival rate of this young cohort that improves our population models. More important, juvenile resightings tell us what sorts of lakes juveniles prefer to use for foraging in the fall. Since we learned last year that many of these young loons "imprint" on their natal lake and settle as adult breeders on

lakes very similar in size their natal lake, we can ask now, "Do juveniles in their first few months of life already exhibit the same preference for lakes of natal-like size that they will show as adults?" If so, we can expect that clusters of lakes of similar size are especially important to loon populations, because they allow juveniles to feed, mature and lay down enough fat to sustain them on fall migration.

Fall observations of juveniles have also revealed interesting and unexpected patterns in parental care. As chicks get older, parents give them greater and greater independence. Oftentimes parents fly off to forage on lakes nearby, leaving juveniles on their own for many hours. This makes sense, especially on small lakes, because having adults leave the rearing lake could help protect fish populations for hungry chicks. Chicks also probably benefit from being away from parents by learning to cope with hazards like eagles, other loons -- and jetskis! -- in a way that is beneficial to them in the long run. But there is an apparent cost to parents abandoning their young for long hours: it leads them to confuse their own chicks with chicks from other families. We have now recorded several cases where loon parents return to look for their own chicks on a lake, blunder into chicks belonging to other pairs, but go ahead and feed the wrong chicks instead of or in addition to their own. Now, this confusion might be of little importance, because most of these wrong feedings occur when chicks are 10 weeks or older and have begun to feed themselves for the most part. However, the fact that parents don't always know their own chicks and feed them exclusively means that a clever chick might cozy up to a non-parent and gain lots of free meals! This

happened on two lakes in 2013, Muskellunge (Lincoln Co.) and Boom. In fact, the chick pictured in the photo made its way over to Boom from Thunder Lake, joined a family, and intercepted lots of food from the Boom pair, as they fed their own chicks. We do not yet know how important stolen feedings are in loons, but we are keeping our eyes peeled for more examples.

For those of you who are new, remember that we have a website, http://loonproject.org/, that provides a good deal of information about who we are, our goals, and our activities. The site also provides reprints from almost all of our scientific publications and a few popular ones, if you want to read up on our work. Last summer I started a blog on the site where I tell interested folks about our work in they study area, relate odd findings and patterns, and announce publications and important loon-related events. If you are really excited to learn information of the kind in my annual letter but hunger for it all year long, you can sign up on the site to receive an e-mail of every post I send out. That should be more than enough loon info to keep anyone sated!

That's all for now See you out on the lakes

Miles

Walter Piper
Faculty of Biology
School of Earth and Environmental Sciences
Schmid College of Science and Technology
Chapman University
Orange, CA
92866
office:714-997-6907
Website: http://loonproject.org/

P. S. -- By the way, thanks to Sue Poskie, who took the great photo of the chick from Thunder Lake, as it foraged alone on Boom Lake last October.