

The Squirrel Camp Newsletter

Summer/Fall 2017



Greetings from Squirrel Camp!

This is the 30th year of research here at the Kluane Red Squirrel Project. That's right—we've been studying this population of squirrels for three decades! You might ask, 'what could possibly be left to learn about squirrels?', but one of the best things about ecological research is that most answers lead to more questions. Our research at Squirrel Camp uses squirrels as a model study species to learn about all wildlife. We also study other Kluane species, like snowshoe hares and lynx - which we'll have more info on in our winter newsletter. For now, take a look at some of the baby squirrel-centric research we were up to this summer.



photo: Jack Robertson

Juvenile Squirrel Dispersal



photo: Ryan Taylor

Summertime means baby squirrels growing up. April Martinig (University of Alberta) is curious about the process of juvenile dispersal—once they leave mom's territory, how far do they travel to establish their own? How many of them survive? What strategies are most successful? To answer these questions, she fitted radio collars on juveniles and tracked individuals' movements. Chasing teenage squirrels around the forest was fun, but tiring. They can't afford to slow down, so we couldn't either!

Hare Reproduction and Food

Squirrels aren't the only ones having babies in the summer. Yasmine Majchrzak (University of Alberta) is interested in how food availability affects snowshoe hare reproduction through the peak and crash of the lynx-hare cycle. For the last few years, she has given additional food to some hares through the winter and then in the spring compared the offspring of those hares that received extra food to those that did not. If giving additional food to snowshoe hares helps them have bigger and healthier babies, who are more likely to survive, then lack of food might be a factor in the population crash.



photo: Juliana Balluffi-Fry



Motherhood in Squirrels

Sarah Westrick (University of Michigan), is interested in how squirrel mothers take care of their pups. When we find the pups in the nest, some moms are very vocal, other moms hang out nearby quietly waiting, while others run off as soon as we arrive. Mothering strategies can impact offspring behaviour and how they respond to stressful events, so after observing mom's behaviour at the nest, Sarah and her team trapped the offspring to observe their behaviour and take samples to measure their stress response. This year Sarah and assistants followed 48 moms as they reared 97 total pups through the summer! This research may have implications for mothering strategies in other animals other than squirrels.



photo: Julianna Baluffi-Fry



Above Mother squirrel moving one of her pups.

Below: A squirrel snacking down.
(photos by Julianna Balluffi-Fry)



We'd like to thank both the Champagne-Aishihik First Nation, for allowing us to pursue our research on their traditional territory and specifically Agnes MacDonald for access to her trapline. Also a sincere thanks to the village of Haines Junction for the support both tangible and intangible!



Nosy Neighbours

Past work from Squirrel Camp has shown that squirrels change the effort they put into defending their territory depending on who lives around them. Long-term neighbours are less prone to stealing cones from each other, so each can spend less energy defending against intruders. Most territory defense is through vocalizations known as rattles. Jack Robertson and Maggie Bain (University of Guelph) are currently trying to figure out if squirrels can recognize familiar and unfamiliar neighbours based on these rattles, and how squirrels communicate within their neighbourhoods. To figure this out, they recorded squirrels in the field (below), analyzed these recordings, and broadcast these recordings back at squirrels and observed their responses.



photo: Jack Robertson