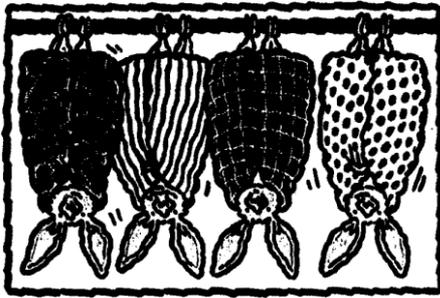




Bats in the midnight sun Michele Henley



If you were active in the bat group a few years ago, you will remember Michele as she was out in the field with us a lot as she trained for her roost visitor's licence.

Then she headed off on her travels. But she keeps in touch, every now and then sending a sickening photo of some sort of wildlife or the other. This is an article she sent me earlier and which got squeezed out of the last issue by other events. N Bucks members may like to fast forward now as you will have already seen this.

"There are strange things done in the midnight sun" (The Cremation of Sam McGee a poem by Robert W. Service)

Can you locate the Yukon Territory on a map of Canada? I have to admit I couldn't when my partner suggested we live and work there for a year. The Yukon Territory is a huge area of land, mostly wilderness, located above the 60th parallel, neighbours to Alaska. It is roughly the size of Germany with a population of just over thirty-three thousand people.



Winters are long, and days are short. The first snow usually falls around Halloween and stays until late April. Although sometimes, it makes a surprise visit - this June we had two inches of snowfall. The average winter temperature is -18°C but temperatures drop to an unbearable -40°C. So strangely enough, I wasn't overly

tempted by the idea of living here. The summers are too short, but warm and summer days are long.

The wildlife is abundant and on any trip to the Yukon you will see grizzly and black bears, porcupines, coyotes, moose, caribou and beavers. Stay for a while and you may be lucky enough to see a wolf or lynx, or maybe even a bat. So when summers are short and daylight hours are long, what do bats make of the Yukon: the land of the midnight sun?



Only three species of bat have been recorded in the Yukon: Little Brown Bat (*Myotis lucifugus*); Northern Long-eared bat (*Myotis septentrionalis*); and Big Brown Bat (*Eptesicus fuscus*).



Although we are not far enough north to experience 24-hour sunlight in summer, we are pretty close, with 21 hours of sunlight at summer solstice, and never getting completely dark during late June and early July. These long days obviously affect bat foraging behaviour - in June, bats do not emerge until midnight making foraging time very short. A study of *M. lucifugus* found that even in midsummer, they always emerged after sunset and returned before sunrise, limiting foraging time to just two hours (Talerico, J. 2007).

Bats are seen in the Yukon from April until late September. It is not known where they go to hibernate, but thought that they do not hibernate in the Yukon (due to extreme unstable temperatures), but migrate to caves on the coast of south-east Alaska, where the air is humid and temperatures remain relatively stable at 1-5°C throughout winter. Because research has determined that the bat species found in the Yukon do not typically



migrate more than 300 kilometres, it is thought that the northern limits of bats at the 65th parallel is due to limits on migration ability rather than habitat restrictions or long summer daylight hours (Slough, B. 2006).

I volunteered to help out for a few evenings with a bat survey team as part of a biodiversity study for the designation of a Territorial Park. I took the usual bat survey equipment as I would in the UK, plus a few extras.....such as bearspray. It certainly adds a whole new element to bat surveying, wandering around the wilderness in the dark with the fear of bumping into a bear...and gives a new meaning to risk assessment! Can you imagine the mess a grizzly would make of a mist-net.

We set-up about 8 mist-nets, including a couple carefully strung across the river, ensuring the bottom was close enough to the water to stop bats flying underneath, but high enough to prevent them from drowning. The first night was unsuccessful, only catching three bats of the same species, but it was wonderful for me because I saw my first Little Brown Bat (*M. lucifugus*), common in the Yukon, and throughout Canada.

The second night, at emergence the nets just filled up with bats. It was quite a challenge getting all the bats out of the nets quickly, especially from the nets over the river. Needless to say, I did not go home dry, nor warm, that evening. Again, we only caught *M. lucifugus*, but caught about 30 individuals. We were hoping for a glimpse of *M. septentrionalis* or *E. fuscus*, or maybe a new species for the Yukon, but sadly not. However, considering the sheer size of the park and the amount of inaccessible territory within it, we really just touched the surface with this survey.

The Yukon is full of opportunities for bat lovers because a considerable amount of research is still needed to determine species present, habitat use and hibernation ecology. Although, only three species of bat have been



recorded in the Yukon, several other species live just across the border in Alaska and British Columbia, so why not the Yukon? The Yukon Government are keen to discover more about Yukon's bats and have funded a number of bat research projects by students and experts. Bats, unlike other Yukon wildlife species, do not generate income from tourism or hunting, so it is great to still see support for this research.

I spent the summer working as a Park Officer and plan to stay for another year and take part in more bat studies this summer - providing of course, I survive another Yukon winter. Yukon bats certainly have the right idea, I too like the idea of being a summer resident but going somewhere warmer for the winter.

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References:

- Slough, B. (2006) *Discovering Yukon Bats 1997-2005* Research, Yukon Biodiversity Working Group 2006 Annual Forum Abstracts.
www.yukoncollege.yk.ca/research/forum-abstracts_06.pdf
Talerico, J. (2007) *Strange things done in the midnight sun.* Western Canada Bat Working Group Newsletter. Issue 11.