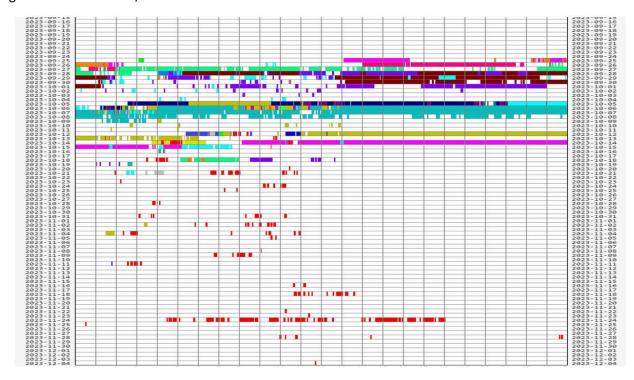
## Saw-whet Owls MOTUS update #4 – WINTER HOMES

23 December 2023 by Geoff Holroyd, Beaverhill Bird Observatory, chair@beaverhillbirds.com

Our owls seem to have settled down with no new movements in December. Yet we are still learning more from the owls. Some are loitering, i.e. they are home for the winter.

Our most faithful Saw-whet Owl never left Beaverhill Natural Area, or at least stayed within 15 km of our MOTUS tower for many days. The image below shows this owl in bright red. It was caught on 12 October and as you can see it was detected by our tower on 21 days until November 29, then on December 4 and again on December 17/18.

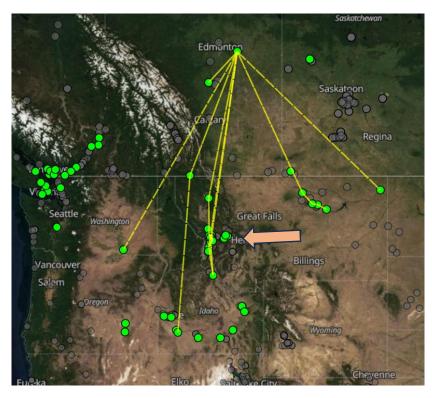


I should stop and explain this figure. The lines are dates from 24 September when we started tagging owls until 19 December. The horizontal axis is Universal Standard Time (UST) or Greenwich Mean Time (GMT). Currently UST is 7 hours ahead of Mountain Standard Time, so on the table 7 am GMT is our midnight . Before the time change our midnight on Daylight Savings Time was only 6 AM GMT.

By making those time shifts we can see that the owl was most active from 5/6 pm to 4/5am Mountain Time. Most daytime the owl was not detected by our tower suggesting it was in vegetation (forest) or even a nest box during the daytime. On November 24 the owl roosted where its nanotag signal reached the MOTUS tower. Then at about 11am it ducked down or into a box and the signal was lost. November 24 was partly sunny so we could guess that it was getting warmth from the sun. Then a curious coincidence, I went to the lab to unhook some electronics from our solar system on the 24<sup>th</sup> midday! Did unknowingly disturb the owl? I walked the full exterior trail of the natural area not really near any nest boxes except the one right by the lab and the owl was not there (I check every time I go out). Coincidence or cause, we will likely never know.

The owl then 'disappeared' from December 4 to 17 or did it? Turns out MOTUS central had a software issue, and I don't know if they 'lost' data during this time, or not. Regardless the owl was detected from 2 to 6pm on December 17 during the daytime! Then not detected at night.

Do you remember that three owls traveled to just south of beautiful Kalispell in Montana? One of those owls was last detected at BBO on the night that it was tagged, October 4-5, then picked up at Creston, Montana a suburb of Kalispell, on 22/23 October. Eight days later it continued south and was detected by 11 MOTUS stations around Carleton, Montana. Notice the cluster on the map beyond the end of the arrow. After 8 days it ended up south near Corvalis, Montana where we last heard of it on November 9. These MOTUS stations are part of a complex of towers under the leadership of Kate Stone, MPG Ranch, and the Intermountain Wet Collaborative. This Montana team are studying a host of species including chats, sapsuckers and owls.



This map is the same as in Update #3 showing 9 Saw-whets that have been detected south of BBO in Alberta, Montana, Idaho, and Washington. We can make some inferences about the end of the owls' migrations. The 7 owls that crossed into the USA did so between the 4 and 20 November with an average last detection on November 8. These records give us an indication of the termination of the owls' southerly migration. We have trapped owls in the Beaverhill Area through November in the past, but maybe these later northerly owls are non-migrants that aren't travelling far. As this project sends us more information, we will learn more about these owls' movements.

Thank you again for sponsoring nanotag(s) which allowed this project to move forward. We are off to a great start after only three months. The tags are programmed to last 24 months; optimistically we can expect 7x more information by 2025!

## SEASON'S GREETINGS

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