

The Life of a BBO HOWR Intern  
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For the last two summers, I've had the privilege of being an intern at the Beaverhill Bird Observatory (BBO). The BBO, located minutes east of Tofield (Figure 1), is an organization responsible for monitoring and banding birds in the area. Since 1984, their work has contributed to understandings of bird populations and migrations through the central Alberta region, making it a valuable biological institution.

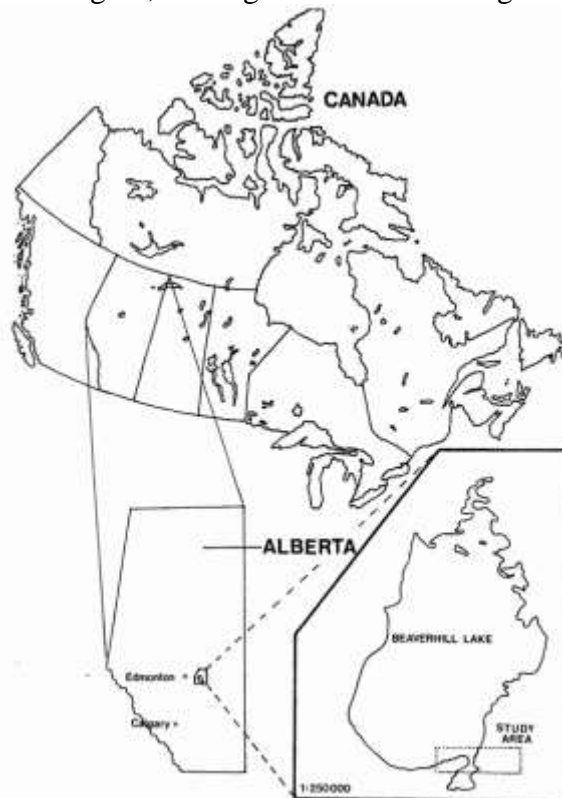


Figure 1: Location of the study area, east of Edmonton, on Beaverhill Lake.

Although they have a few (two to three) staff members each summer, much of their work relies on the efforts of volunteers and the newly implemented internship program. These opportunities are not only great experience for members of the public, but are hugely valuable to biology and science university students. Fieldwork experience is critical to gain a foothold in the field of professional scientists, especially in areas of conservation and environmental biology. By working in conjunction with the Serving Communities Internship Program (SCIP), the BBO has been able to offer internship positions that not only offer field experience, but also provide a bursary that helps students further their post-secondary studies.

Through my internship experiences at the BBO, I was involved in the house wren (HOWR) monitoring program. The summer of 2013 was the first year that we were “re-establishing” several series of bird nest box grids, based on Michael Quinn’s MSc thesis that was completed there in 1989. This was a daunting task for us interns, who had very little (or no) experience in the field.

Grid establishment is not possible unless we have nest boxes to use, so with the help of many interns, volunteers and school children, dozens of nest boxes were constructed over the course of the first weekend in May. An assembly line approach helped us get everything all done, and also helped us get to know each other and spend quality time together. An example of the nest boxes that we used for the house wren grids is shown in Figure 2.



Figure 2: A nest box hung on a tree in Grid A.

Once our boxes were built, we had to decide where and how we would establish our grids. Thankfully, we had the help of Dr. Geoff Holroyd, who was a co-supervisor for the initial thesis project by Michael Quinn. Through his guidance and the use of a map included in the thesis, we established one complete grid, and determined where we would establish our second grid at a later date. As shown in the pictures below from Quinn's thesis (Figures 3a and 3b), the "nest box grid" was simply a set of boxes set up in a uniform pattern, 30 meters away from each other. This was accomplished by using a length of rope measured to be 30 meters, along with a compass to ensure the direction of box placement was square and uniform relative to the other boxes. Using this technique and Dr. Holroyd's help, we establish "Grid A", which was five boxes by five boxes, for a total size of 20 boxes. Although a different shape than the one used by Quinn (shown in Figure 3a as Grid A), we established it in the same location he used.

The location of our "Grid B" was chosen with the help of Dr. Holroyd, in conjunction with Quinn's map (Figure 3a), however it was up to the house wren interns to actually set up the grid ourselves. This went well overall, however the fifteen northernmost boxes were set up in a line going slightly southwest. This was thought to be due to poor compass skills, likely forgetting to incorporate the declination of the BBO's location, but the rest of the boxes were corrected to be on a line going due south. A challenge with establishing this B grid was that the vegetation had changed from a sparse willow-dominated area during Quinn's time, to a dense, mature aspen and poplar dominated area. Navigating through this with our equipment was challenging at best.

Grids A and B were established in May 2013. In May 2014, we established grid C, and D was done in September. These two grids were located across the weir, just east of Lister Lake (Figure 3b). The 20-minute trek to this location made logistics difficult, but grid C was completed in time to be included in monitoring for the summer.

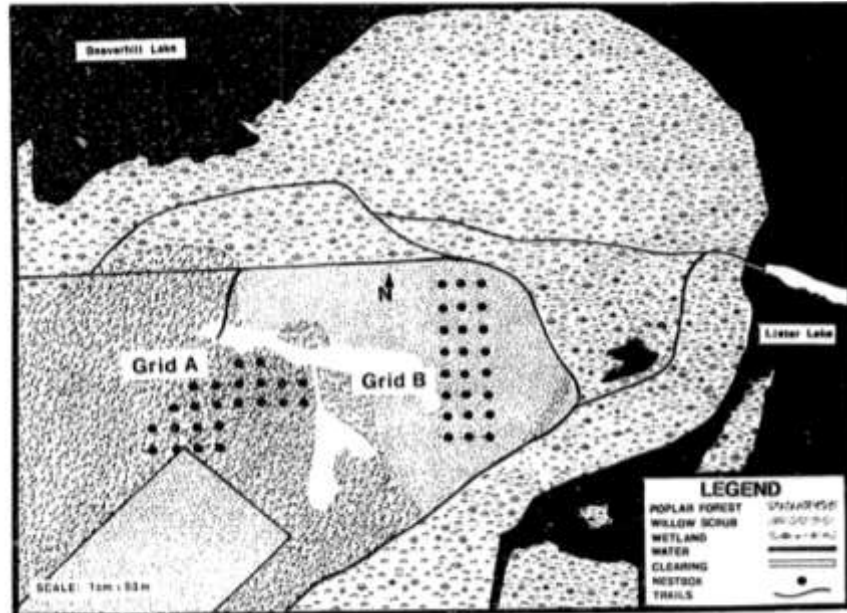


Figure 3a: Map of study area for House Wrens at Beaverhill Lake (west)

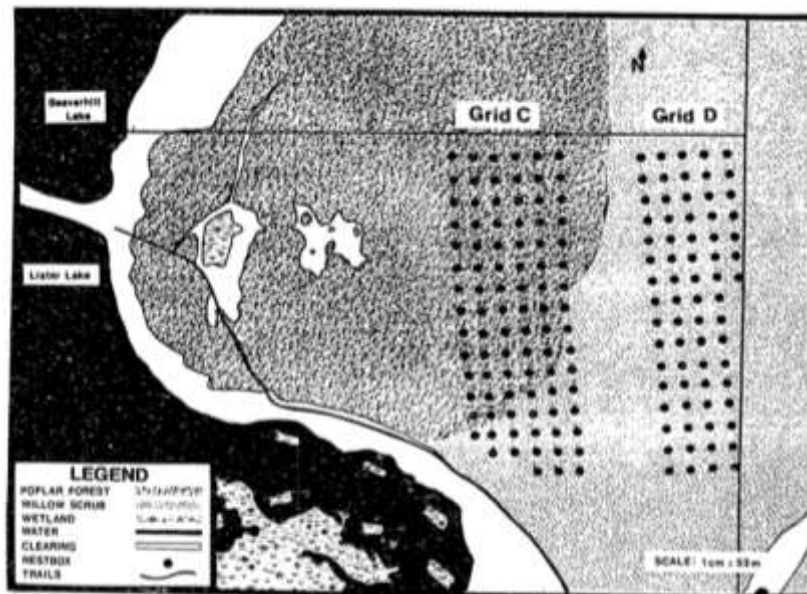


Figure 3b: Map of study area for House Wrens at Beaverhill Lake (east)

For the last two summers, we were responsible for monitoring the re-established house wren grids. This meant checking each nest box two or three times a week and recording observational data, including presence (and completeness) of a nest, presence of eggs, number and age of chicks, etc. We tried to band as many of the new chicks as we

could each season, which was done when they were around eight days old. By doing this through the summer, we compiled two seasons' worth of data for Grid A and Grid B, and one season's worth for Grid C. Grid D will be monitored starting in May 2015.

The data that is collected from these grids will allow us to make comparisons and track any changes that have occurred in the area to the house wren population in the time since Michael Quinn completed his thesis. This kind of work is valuable to monitoring environmental conditions and impacts that human development may have on the area. Overall, my internship experiences have been an opportunity to gain first-hand experience with fieldwork, and meet fantastic people that share the same interests in biology. We were empowered to make our own decisions (and mistakes) in an actual field setting. This is so valuable for people new to the field of work, and helped me gain a better understanding of the kind career path I want to take, even though that may not necessarily be in the field of biology.