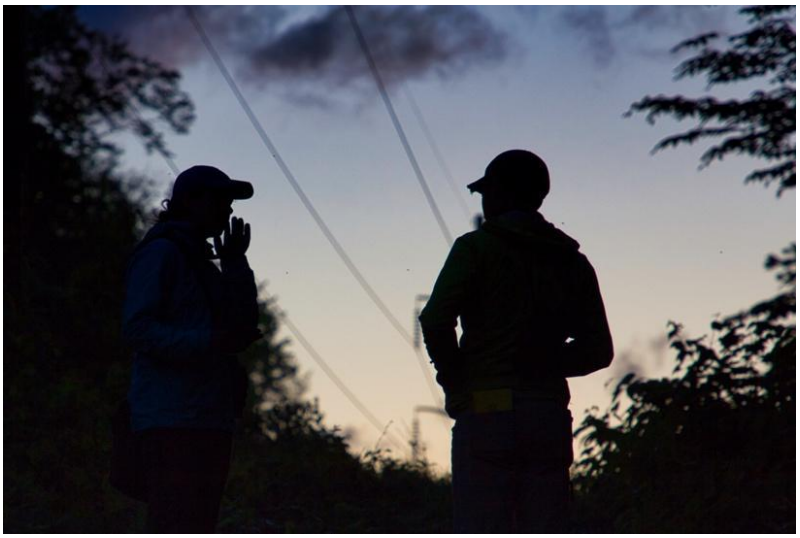
The *Point* of Point Counts: Takeaways from Avian Research Conducted in Bear Paw Conservation Land

By Sam Mason

Accompanied by a thick blanket of mosquitos, research manager Katy Lewis, avian intern Donavan Spaulding, and myself, a camera man looking to get a fuller understanding of what exactly goes on during these early mornings in the field, bushwhack through a thick forest of American Beech and Eastern Hemlock trees to our next point. As I follow from the back, I squeeze my way through a crowded grove of young Beech trees, making handling my camera and keeping my balance more difficult than usual. The early morning dew is beginning to evaporate as the sun's first few rays show themselves on the forest floor. I could hardly believe that it was 5:30 in the morning, for the symphony above us was full of liveliness and vibrancy. After arriving at our first point, I began to understand why point counts are conducted this early in the morning.

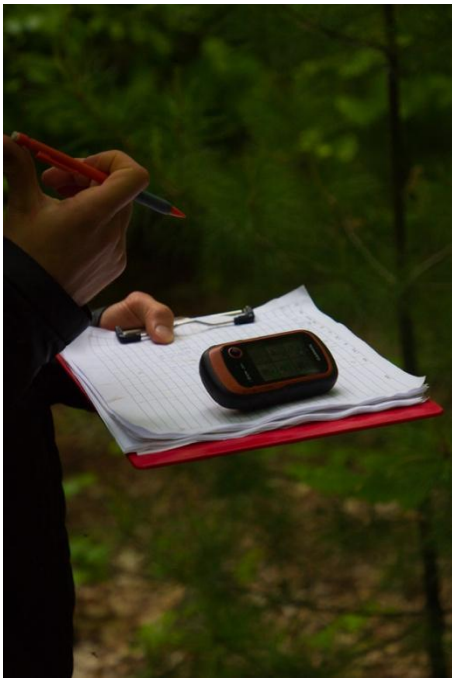
What Does a Point Count Entail?



Katy Lewis and Donovan Spaulding discuss how to conduct as many point counts as possible as the sun begins to rise.

Have you ever wondered why your goodnight sleep is most often disturbed from the hours of four to six in the morning by the songs and sounds of birds? That's because during these hours, though this chirping often persists far after six in the morning, birds are most active. It has been established by experts that birds sing early in the morning to lay claim to territories before the light of day makes foraging within the forest more possible. Because of the large amount of activity found just before sunrise, the wakeup calls for point counters can be anywhere from three to four in the morning.

Once in the field, point counters rely on handheld GPS units to help navigate the sometimes heavily wooded area to marked points from which data is collected. Points, each marked by a red PVC pipe, cannot be too close to one another, for if they were, point counters would run the risk of recording the same bird twice from two different points. Since there are dozens of points within the Bear Paw conservation land that Tin Mountain records data from, having them too close together could lead to overestimations on the number of birds or species. By keeping points spread 150 to 200 meters apart while simultaneously limiting the "search radius," or the radius in which you record individual birds seen or heard, at each point to 50 meters, point counters are able to more closely tie species to specific points.



Donovan Spaulding records the individual birds that could be herd after arriving at his point

Once a point is found, those conducting the research record individual birds that sing, call or are seen within a ten-minute period. To be recorded, a bird needs to be within the previously mentioned "search radius." At the beginning of each point the date, time of day, sky conditions, wind speed and noise disturbances, such as running water or rain, are all recorded, as these factors both significantly affect a point counter's ability to detect present birds and are important when interpreting data over a long period of time.

Here, knowing the different calls and songs of individual birds and being able to pick out which is which is vital, as actually seeing the bird that is calling is uncommon due to the low light and a bird's natural instinct to remain hidden. In this sense, point counting becomes a bit like a game of Clue, as one must pick out the individual subtleties and characteristics of each call or song. This can prove to be a difficult task, as some songs or calls are quite similar to each other, like the calls of the Hermit Thrush and the Wood Thrush. Thus, having a trained ear is crucial.

Why Collect This Data?

It is certainly fair to ask why gathering data on which bird species are residing in an area is worth waking up at the crack of dawn. However, the knowledge that can be gained from this data provides ample reason to conduct such research.

Birds by nature are good indicator species, meaning they react in specific ways to subtle changes in their environment. For example, if data from prior years noted that there was an abundance of a specific species at one point, but that point had recently been exposed to significant logging or pollution and that species of bird was no longer seen, then this is a clear indicator that such conditions had a negative effect on said species. This information can most effectively be gathered through point counts, thus making them an important part of assessing the health of the bird population.

However, changes in environment can sometimes *help* the bird population, as diversity within a habitat can aid in facilitating the arrival of a new species. Over the last decade, Tin Mountain has completed tailored tree cuttings in areas of the Bear Paw wilderness in the hope of creating a more diverse forest structure that's attractive to a wider range of species.

Katy Lewis and Donovan Spaulding walk through a section of the tree cuts conducted to create a bush and shrub habitat.

The intended outcome of these selective cuts is to cater to the bird species who live in such an environment. Through conducting point counts in the areas in which these man-made habitats have been created, researchers can assess whether or not they succeeded in creating a more diverse bird community.

If not for any other reason, conducting point counts is a pleasant way to spend a morning. Hearing the birds sing as the sun begins to illuminate the forest is a calming and therapeutic experience, if one is able to fight off the mosquitos. And for the experienced birder, point counts act as a fun way to challenge your ability to recognize the different calls and songs that can be heard in the trees.

How to Get Involved

For lovers of the outdoors who may be looking for a new hobby, you may find birding to be a source of both excitement and relaxation. With the beautiful forests of the White Mountain's our doorstep, or all the national forests of New Hampshire for that matter, there is relatively easy accessibility to a vast wilderness that holds many species of beautiful birds. For those interested, Ebird.org is a great place to start, as users of this free website can find hotspots for birding and historical data on sightings and migratory patterns.

Katy Lewis scans the pond in search of any wildlife enjoying the cool morning temperatures.

Another way to get involved is through the Christmas Bird Count; a nationwide program managed by Audubon that Tin Mountain and many other organizations participate in. This community science bird project is one that our staff, membership and residents of the Valley take part in, making it another great way to get involved in birding. Across the country, but especially here in the Whites, there truly ample opportunity to explore this hobby while getting fresh air in our beautiful forests.