

WILDLIFE TRANSECT SUMMARY, 2002-2011
COLBY HILL ECOLOGICAL PROJECT
LINCOLN, VERMONT
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A transect to survey wildlife sign has been sampled at Guthrie-Bancroft Farm by Greg Borah four times annually since October 2002. The methodology follows protocol of Keeping Track, Inc.; once in each season of the year observers record sign of black bear (*Ursus americanus*), bobcat (*Lynx rufus*), Canada lynx (*Lynx canadensis*), mountain lion (*Puma concolor*), fisher (*Martes pennanti*), mink (*Mustela vison*), moose (*Alces alces*), American marten (*Martes americana*), river otter (*Lontra canadensis*), and gray wolf (*Canis lupus*). Additionally, on this transect porcupine (*Erethizon dorsatum*) sign has been recorded. A second transect established at Wells Farm has never yet been sampled.

Results

During nine years of sampling, 113 observations have been recorded. The most frequent sign has been of black bear; the 68 observed signs account for 60% of all observations throughout the years. Thirty-six percent of the signs have been trees marked by clawing and/or biting, with or without observed hair having been rubbed onto the marked trunk. Territorial marking of trees has been recorded on balsam fir, northern white cedar, red and white pines, and paper birch. Feeding sign comprises 15% and tracks only 3% of the bear observations. Feeding has included grubbing in logs and the ground and foraging apples and beechnuts from trees. Twice sign of climbing trees was recorded, and there was one sighting of a bear during the transect sampling. Forty-seven percent of the bear sign observations were made during the fall sampling, with 37% of the sign observed during the summer. Ten percent were seen in winter and 6% during spring sampling. It seems clear that bear are a very common large mammal at Guthrie-Bancroft and they utilize the site quite heavily in the fall and summer.

Moose frequent these woods in every season but for winter. Only one sign of winter use has been observed, whereas moose sign has been recorded nearly evenly for the other three seasons. Tracks and scat are common; sign of feeding has been observed sporadically and comprises only 13% of the 23 recorded moose signs. Moose commonly use the trails, but over two-thirds of the observations are from off-trail areas.

Fisher sign comprises 12% of the transect observations. One animal was sighted in the nine years of sampling. All other sign was tracks, with two of these recorded with accompanying prey feeding. Fisher sign has been evenly distributed between spring and winter observations, with none noted during summer or fall. Another mustelid, mink, has been recorded from observation of tracks five times. All observations have been seen in spring and winter, and they were distributed across a number of years.

Bobcat are uncommon at Guthrie-Bancroft. Only two signs have been observed in the nine years of sampling; tracks were seen in 2003 and 2010, both times during spring (March) sampling. The two sets of tracks were seen on different trails.

Additional meso-mammal tracks observed at the site but not seen on the systematically sampled transect include fox (presumable red?), coyote (*Canis latrans*), weasel (*Mustela* sp.), and raccoon (*Procyon lotor*) were noted. White-tailed deer are common; no data have been collected regarding the distribution of deer sign in different parts of the woods or at different times of the year.

The Guthrie-Bancroft lands are actively used by large and medium-sized mammals. Bear and moose presence has been consistent through the sampling years; these animals leave larger and longer-lasting sign than some of the others. Coyote use also appears to be consistent, but there is no data collection for those canids. Fisher are a somewhat less common species on the lands; they have left clear sign of winter and spring use in all but one year of sampling.