

## **B. Wildlife Assessment**

Qualitative methods were the predominant form of investigation for ascertaining wildlife presence and condition in Meredith. Initial review of extant wildlife records, including those of NH Fish and Game, the NH Audubon Society, The Nature Conservancy, and the NH Natural Heritage Program was extremely helpful in terms of preparing for the field surveys. This was augmented by local anecdotal records of wildlife enthusiasts, many of whom sat on the Meredith Conservation Commission. Prior fieldwork in the region provided a beginning set of species lists, natural community lists, and rare & endangered species records. Data from past site visits to Meredith were included in the wildlife findings, especially from the single day of fieldwork at the Hamlin and Eames Recreation and Wildlife Areas on October 5, 2002. Several rare species and exemplary natural communities were recorded on that day, some of which were not observed after that time period.

A comparable effort that provided data on the wildlife of Meredith actually occurred during the 2006 field season, when EMC joined Plymouth State University in completing a water quality assessment study of the Lake Waukegan watershed. During this project, EMC was in charge of establishing a number of water chemistry and bio-monitoring sites in the watershed in order to measure and monitor trends over time. Although the bio-monitoring focused on aquatic invertebrates, records of larger wildlife were recorded during some of the field days, including a pair of nesting loons in Perkins Cove, several waterfowl species off Bonney Shores Road, and several raptors below the Waukegan Golf Course.

Most of the wildlife data, however, came from direct observations during roadside and off-road field surveys that took place between February 28, 2006 and August 25, 2007. Records were made on the basis of sightings, either visual or aural, scat, hair, feathers, tracks, claw marks, browse marks, bite marks, dens, burrows, tunnels, and odor. GPS points were entered for areas of concentrated sign, but not for every piece of evidence observed. This was particularly true for white-tailed deer, red and gray squirrel, raccoon, and in certain instances, moose. In winter, this was also true for predators; however in summer, tracks and other sign of predators such as coyote, red fox, gray fox, and bobcat were recorded each time they were observed.

The designation of a wildlife “corridor,” as noted above, is based on an above-average frequency of wildlife sign. For the most part, this entailed the observations of mammals, since their movements tend to be more widespread than other animals without wings. Wildlife corridors were identified as areas where the repeated use of a particular locale had created game trails, scent marking stations, and other evidence of frequent use by one of more wide-ranging species. The term “corridor” is somewhat of a misnomer since it implies regular movement along a narrow channel of space. Whereas this may be true for turtles or fish moving up and down a stream, this is far from true for many predatory mammals such as

coyote, fox, fisher, bobcat, and bear. In Meredith, the most regularly used game trails in uplands were those made by deer, moose, bear, coyote, and bobcat. In wetlands and along streams, these tended to be heavily used by otter, mink, raccoon, and beaver. The corridors marked on the Meredith Mammal Observations map (see page 38) usually involved road crossings by one or more of these species. In upland areas, they were always marking game trails made by one or more of the upland game species. Although streams, rivers, and other shorelands regularly serve as wildlife corridors for aquatic species, no attempt was made to identify or locate wildlife corridors in these areas. A follow-up study regarding an assessment of wildlife passage through culverts and bridge openings is suggested in the final section.



Some wildlife corridors were marked in forested zones away from roads so as to better understand wildlife movements in areas of potentially high recreational use. This trail on the east side of CA #3 had tracks of deer, red fox, coyote, and fisher. Bear-clawed red pines were also common in the vicinity.

Figure 5. Wildlife Corridor Along a Ridge Top

### C. Prime Wetlands Delineation

Wetlands were delineated in the field using standard protocols for a **Routine On-Site Determination** using the 1987 Army Corps of Engineers *Wetland Delineation Manual*. Since this was a town-wide mapping project and the level of mapping precision was sufficient using a hand-held GPS unit, the sampling procedures varied slightly from the routine on-site method for areas greater than 5 acres. Instead of using lateral transects to identify observation points in each plant community, a “sample-as-you-go” approach was used, that is, observation points were made *along* the wetland line within each plant community that was encountered. Direct observations of wetland plants in each plant community accounted for where obligate (OBL) and facultative wetland (FACW) plants were dominant.<sup>6</sup> When it appeared that OBL and FACW

<sup>6</sup> All vascular plants are ranked according to their “wetlandness,” that is, whether or not they typically occur in wetlands. An “OBL” plant occurs in wetlands >99% of the time and a FACW plant occurs in wetlands 67-99% of the time. Facultative (FAC) plants occur in wetlands 34-66% of the time, and facultative upland (FACU) plants occur in wetlands 1-33% of the time. Only upland plants (UPL) are considered absolutely non-wetland plants as they occur in wetlands <1% of the time.