A Jackpot of Biodiversity Waban group continues exploration of Bauneg Beg Lake

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Editor's Note. Members of Waban's TREE (Therapeutic Recreation and Environmental Education) Program have been conducting water quality studies at Bauneg Beg Lake and will be reporting routinely on the results of their educational investigations. This is the third installment in a series of updates from the program.

SANFORD — On a gorgeous autumn day, the Adventure Group went out to study the woodlands surrounding Bauneg Beg Lake and learned about the concept of biodiversity, which is the measure of how many different living organisms are present in a geographic location. Biodiversity is part of the measure of the health of an ecosystem.

After receiving an introduction on the topic, the group dispersed to varying habitats along Waban's trails and lake edges. Each participant was armed with a two-foot by two-foot plot square to isolate an area in which to count the plant and animal life. Three types of locations were studied for surface comparison: gravel trail, open grassy area, and forest edge under trees. Not surprisingly, the gravel trail showed little to no living organisms and would be classified as a low rate of biodiversity. By comparison, the grassy areas offered a bit more with grass and leaves, but without digging under the surface and due to the season, little more was available to be counted.

courtesy photo Chris Heywood and Theresa Pelletier count and record the many living organisms they observe in a small plot at the forest edge on one of Waban's trails near Bauneg Beg Lake in Sanford.

The forest edge, however, offered a jackpot of biodiversity appropriate to a temperate deciduous forested area. In a single plot, there was evidence of at least 22 different plants and 5 different fungi, which included moss and assorted tree species, such as oak, maple, birch, pine, and beech, many with lichen. The documented fungi included the turkey feather mushroom and a flat fungi that resembles lichen. Observers also recorded as many as 11 types of animal life, including termites, earthworms, spiders, segmented worms and ants. Even in the smallest area, woodlands have a relatively high rate of biodiversity. Comparatively speaking, the highest rates of biodiversity would be found in tropical rain forests.

The Adventure Group observed many of the different species present around Bauneg Beg Lake with the close inspection of each plot, but also recorded several other living organisms observed outside the given squares. The group members saw gray squirrels, pileated woodpeckers, red oaks, and sweet birches.

On future outings, the group will be hoping to observe other species that are likely to be present in this wooded area, such as white perch, cow's lily, pickerel weed, belted kingfishers, painted turtles, loons and blue herons.

After the lesson, the group discussed the living things they counted and learned about what can influence their findings. In the late autumn, many insects have already gone into dormancy and are hidden from view. A visit in the spring will produce a change in the observable surface biodiversity such as an increase in the number insects as well as some varying seedlings in the grassy areas.