Overview
In the summer of 2010 The Natural Areas Land Management Crew of Green Mountain College manually controlled *Lonicera tatarica* (Bush Honeysuckle), *Lonicera morrowii* (Morrow’s Honeysuckle), and their hybrids. The management crew consisted of two part-time positions (20 hours/week): Kelsy Allan and Erin Burch, and one full-time position (35 hours/week): Brandon Goudy. Throughout the 2010 control period, the crew eradicated a total of 268 Honeysuckle shrubs, requiring a sum of 127 person hours for its removal. Shrub Honeysuckles are dispersed by birds, and grow vigorously once sprouted. The plant can deplete nutrients and moisture in the soil and inhibit growth of native plants by shading areas. Controlling honeysuckle requires ongoing effort, as the plants can stay present in the seed bank for three to five years¹.

Methods
Shrub honeysuckles can be controlled using mechanical or chemical means. The Natural Areas Land Management Crew chose to control honeysuckle on Green Mountain College land by cutting plants at the base with hand-saws and other hand tools, then immediately applying a 25% active ingredient glyphosate solution², using a paintbrush, to the exposed stump. Cut branches were not removed from the parent base area.

The management efforts involved keeping record of where the invasive species was found. The Green Mountain College natural areas were divided into sectors (see map). The areas controlled involved 10 sectors on the map. Time spent in each sector was variable depending upon number and size of plants in the area. Each sector was combed once and eliminated of present honeysuckle. Numbers of removed honeysuckle and the sectors in which they resided were recorded and graphed. The control period for honeysuckle began June 25th, 2010 and ended July 28th, 2010.

Data
Refer to Excel file: HoneysuckleData2010.

Discussion
In the years 2007 and 2009 Green Mountain College’s Natural Areas Land Management crews worked to remove Shrub Honeysuckle on the college’s campus. The manner in which data was collected in 2007 and 2009 differ from the 2010 control period. Differences in data collection in previous years compared to 2010 include such things as differences in designations of map locations, and in 2009 the number of Honeysuckle removed was not recorded. Further, in 2009 the land management crew recorded the person hours spent on removal of both Honeysuckle and Glossy Buckthorn combined. As

¹ dnr.wi.gov/invasives/fact/honeysuckle_tart.htm
² Glyphosate – the active ingredient in “Roundup”, which is produced by Monsanto Co. It is a non-selective herbicide typically used to kill unwanted grasses and weeds. Its use is effective through absorption into the plant’s tissues, where it interrupts metabolic processes.
a result, some of the data in 2010 and subsequent years can’t be compared and contrasted with earlier data.

In the summer and fall of the year 2007, crew members spent a total of 29.22 person hours removing 588 Honeysuckle altogether. Initially, in 2007 crew members removed all seedlings and individuals small enough to remove by hand alone and larger plants were removed with a weed wrench and even larger individuals were removed using a truck. In the 2009 control period methods of removal included use of the weed wrench, hand saws in combination with the application of the glyphosate solution, and the smaller plants were pulled by hand. A sum of 114.5 person hours was spent removing a combination of Honeysuckle and Glossy Buckthorn in 2009.

The discrepancies in the amount of hours spent in comparison to the total number of plants removed may be due to the size of the shrubs in addition to the methods in which they were removed. In the 2010 control period many large and well established Honeysuckle were removed. The larger plants were more difficult to handle and required additional time to be spent on their removal.

Some troubles were encountered in the 2010 control period while eradicating the Honeysuckle. There were a few inconsistencies with data collection of this species, as some plants were removed outside of typical crew hours, and were not accounted for. Therefore, the data may be skewed. Another issue of concern involved time management with removal of the Honeysuckle plants. The crew members came across larger individuals of the species while using hand-tools, and believe it may be more efficient to utilize chainsaws. This could be an alternative to save time and energy, and ultimately to be able to remove more invasive plants in the time available. Additionally, the invasive species Glossy Buckthorn (seedlings) were prevalent in many of the areas in which the crew removed Honeysuckle. Through removal of the Honeysuckle, the understory was subjected to more sunlight. This could potentially aid the future growth and expansion of Glossy Buckthorn in these areas.

Conclusion
The longer Honeysuckle grows and spreads, the more time and effort is entailed to diminish its population. During the summer season, the most effective means of control that was found involved a combination of cutting and applying herbicide. For effective means of control of Honeysuckle, removal efforts must be repeated over several years. Despite a few difficulties encountered during the 2010 control period, most of the remaining large Honeysuckles on campus were eradicated by crew members, and crew members believe their endeavors were successful.