

## Focus on Internships

By Jamie Weaver, *Environmental Science, Senior*

IMAGINE WORKING WITH A BOSS who has provided a job displaying some of Vermont's greatest vistas. Or rather imagine a job where you spend the entire work day in the woods, and you're paid for it while receiving three credit hours. Does it sound too good to be true? Nonsense. During the summer of 2001, I and fellow SNR undergraduate students worked with Dr. Bill Keeton in the School of Natural Resources.

The summer of 2001 was spent learning invaluable skills. I had the opportunity to use pieces of equipment such as the Trimble GPS unit used to locate sampling plots, clinometers to measure the percent slope of the sampling area, and a laser surveyor to accurately and quickly determine tree heights. I also became familiar with standard sampling techniques to measure parameters such as percent cover of ground vegetation and soil depths. These tasks were learned while working in three study areas scattered around the state.

Our work was divided into two distinct geographic regions: northern and southern Vermont. The southern region focused on developing plots throughout Marsh-Billings-Rockefeller National Historic Park (MBR) which is located in Woodstock, Vermont. The plots will be annually sampled to determine the forest health and successional pathways for the many stands and tree plantations throughout the park. The plantations consist of both native and exotic trees, and many of the older American Beech trees are plagued with a devastating pathogen, Beech Bark Disease. All of these aspects have left park managers scratching their heads as to the future direction of the park and how to best manage for these changes. The monitoring plots will assist in answering these questions. The data collection is predicated upon an age old sampling method, slightly refined by Dr. Keeton. The protocol consists of a

series of nested squares. Within the boundary of each square, certain parameters are measured. Such parameters include obtaining data on tree seedling and sapling counts, groundcover vegetation and tree species inventories, tree diameter, height and tree health, depth of the O horizon, and the length, diameter, and decomposition stage of large decaying pieces of wood.

The remainder of the summer was spent sampling at Mount Mansfield and Jericho Research Forest. Aside from a few minor modifications, data collection and sampling methods were similar to those methods conducted at MBR. Unlike MBR, the data for Jericho and Mount Mansfield is not for a monitoring program, but rather for obtaining pretreatment conditions prior to silvicultural applications, directed towards restoring ecological characteristics of old-growth forests. Such characteristics include the importance of large pieces of coarse woody debris, complex vertical vegetative structure, and dead standing snags. Dr. Keeton is experimenting on how best to restore these structures through new experimental silvicultural techniques. These techniques, however, will not be used until the winter of 2002-2003. Instead, the summer of 2002 will consist of more pretreatment sampling.

Dr. Keeton's project provides an opportunity to acquire "real world" experience right in our backyard. Aside from this, his work also helps to restore ecological integrity to the forests of Vermont. This work experience overall has helped shape my focus for studies at the graduate level as well as define employment opportunities following graduation.



*Working in the forest with Dr. Bill Keeton*