

# CHAPTER 1

## INTRODUCTION

The black bear (*Ursus americanus*) is native to Vermont and is found primarily in remote, forested habitat. An estimated 3,500 black bear live in the state with the majority occurring in the northeast counties of the “Northeast Kingdom” and in the Green Mountain chain running north and south through the center of the state.

Beginning in the 1980s, the Vermont Fish and Wildlife Department (Department) initiated a program of conserving black bear habitat under Vermont’s Act 250 Land Use and Development Control Law (Title 10, Chapter 151, of the Vermont Statutes Annotated). Act 250 was created to protect the unique natural and rural qualities of Vermont. Criterion 8a of section 6086 (November 1, 1985 edition) addresses wildlife concerns and protects “necessary wildlife habitat decisive to the survival of” species which depend upon the habitat. This landmark legislation laid the foundation for the Department to actively protect critical wildlife habitat in the state.

Black bear habitat management in the Green Mountain State is based on the premise that minimum habitat requirements must be maintained. These requirements are adequate food supplies, forest blocks that meet home range needs, and connectivity to large blocks of forestland that serve as population sources. Vermont wildlife officials determined that three types of black bear habitat are critical and deserving of Act 250 protection. They are: 1) hard mast stands (oak and beech); 2) wetlands; and 3) travel corridors. Through efforts to protect these critical habitats, the Department attempts to maintain buffer zones between land development and the significant habitat of up to a ½ mile in width.

Ski area expansion and development is occurring at a rapid rate throughout the state and usually takes place within mountainous terrain also favored by black bears. In recent years, ski areas have undergone significant changes as they began evolving into year-round recreational destination areas rather than just winter resorts. Some now boast of more visitors during the summer months than during the winter. What was once an activity that had relatively few impacts to wildlife now has the potential to fragment large areas of wildlife habitat and displace many native species including the reclusive black bear.

Rapid mountain resort expansion has conflicted with the State’s attempts to protect critical black bear habitat in past years. In some cases, decisions on whether resort development should be allowed to impact important black bear habitat have been hotly contested and required decisions from Vermont’s Supreme Court and Federal district courts.

Rather than oppose state regulatory agencies, The Stratton Corporation (Stratton Corp.), owner of the Stratton Ski Area, has attempted to strike a balance between ski area growth and high standards of environmental quality. In particular, they sought a mutually beneficial compromise related to bear habitat. In 1988, they contacted the Department and requested assistance in developing expansion plans that called for nearly 500 new housing units, a second

18-hole golf course, a shooting range, and various other recreational facilities in bear habitat. State wildlife biologists working with ski area planners, modified the plans to avoid as much bear habitat as possible and then created a Memorandum of Agreement (MOA) that outlined various mitigation measures that Stratton Corp. would undertake to lessen impacts to the resident black bear population while undertaking some ski area expansion.

During the process of reviewing the proposed development, it was recognized that some of the predicted impacts of the development on bears were assumptions based on scientific research conducted elsewhere that deserved further testing in Vermont. As a result, Stratton agreed to partially fund a study designed to monitor black bear activity and behavior in relation to increased recreational and construction activity. In particular, the study would evaluate buffer distances needed by black bears in areas of different types of human activities. It was intended that the results of the study would shed additional light on what is “necessary habitat” for Vermont’s black bear population and provide a framework for including black bear habitat requirements in future mountain resort development plans throughout the state.

This study, termed the “Stratton Mountain Black Bear Study”, was initiated in 1989 by the University of Massachusetts. The Department took over the project early in 1990 after the unfortunate death of the principal investigator, Dr. Mark Sayre.

This final report is a compilation of data obtained from radio-instrumented black bears in southern Vermont. Included are portions of two M.S. Theses written by students who worked on the Stratton Mountain Black Bear Study. We intend to have topics from several of the chapters within this report published in peer-reviewed journals as time allows.