

**The Marbled Salamander:
Its Decline in Massachusetts and the Need for
Habitat Protection**

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ABSTRACT

The following thesis is a study of a case involving a residential development in Westport, Mass. and the protection of rare or state-listed wetlands species. The species of concern is the marbled salamander, *Ambystoma opacum*. The wetland potentially being altered by the project is Bordering Vegetated Wetlands, consisting of a vernal pool, the marbled salamander's habitat. This thesis describes the site and the legal proceedings of the case after providing background information on the species discussed and the vernal pool habitat. Because the marbled salamander is now state-listed as threatened in Massachusetts, I discuss the possible reasons for the decline of this species.

This thesis addresses the broader issue of species preservation. I evaluate the Massachusetts Wetlands Protection Act (Massachusetts General Law 131, section 40) in terms of vernal pool habitat protection and found it to be insufficient: the legislation does not include the entire habitat, and its criteria for granting protection exclude most pools in the state. I then recommend changing these shortcomings as well increasing public awareness of vernal pools since they are easily overlooked.

The reasons why the marbled salamander should receive protection are discussed: ecological value, use as an environmental indicator, and aesthetic value. This leads to the importance of vernal pools to several obligate species and to their surrounding ecosystems. A study of the broader issue of species preservation follows, with recommendations for the next step in conservation policy: focusing on habitat to prevent endangerment. And I discuss the several reasons for preventing extinctions. The conclusion suggests that a greater awareness of the utility of all species and working towards including other species in our moral framework will strengthen species preservation policy.