A preliminary survey of the **Butterflies** and adult **Odonata** of the Anderson Properties in Lincoln Township, Addison Co., Vermont during part of the 1999 field season.

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Introduction:

This report constitutes the results of surveys of butterflies and adult odonata during four days of the 1999 field season at the Guthrie-Bancroft, Pierce and Wells farms located in Lincoln and Bristol townships of Addison Co., Vermont. These dates were 11 June, 5th and 31 July, and 27 August. Essentially all of my work was in Lincoln township.

Since I was only involved in part-time censusing, I tried to choose as wide a spread of dates as possible across the season to maximize the possibility of encountering both early and late season species. Four days of course is not adequate to make a thorough survey and it is almost certain that the flight period of some species was missed. June and early July, however, is generally when many species of both groups are active. There are also some "late" flying species of both groups, especially of the odonata, that would probably have been over-looked without a sampling period in late August.

I was originally asked to focus on butterflies but I suggested that odonates also be surveyed and was subsequently encouraged to do so. This choice obviously increases the economic efficiency of the resources available to management, since two major insect taxa are being surveyed by a single investigator. Needless to say, however, this has presented some very challenging problems in dealing with various aspects of both the field and laboratory work for this investigator. One field challenge was that of almost simultaneously recording species from both groups. I am quite confident that I didn't "miss" any species although I don't claim to be immune to human error. The other challenge was the usual-the taxonomic imbroglio whenever one works with large (speciose) insect groups. I tried to deal with both problems in the most exemplary way that I could muster.

Butterflies and odonates constitute, in terms of their general biology, quite different ecological groups. Butterflies are basically a terrestrial group and odonates aquatic. If these farm properties are going to be managed with the noble goal of maintaining and even enhancing biodiversity over a period of years, these two insect Orders are potentially excellent candidates as surrogates of environmental conditions that management needs to pay attention to. How this information is used most effectively is a question of much debate, however. Ecosystem management is a very interesting phrase that is becoming more and more omnipresent in conservation circles, especially, in my view, among those who deal more with the applied end of the research spectrum. We do not yet know very much about just how this should be done and, more germane to projects of this type, just how does information about species translate to good management. What type of information is needed and how should this be used? We have to be careful about being iconoclastic in our decision making in environmental management. That is when we focus on the ecosystem level, just what do we mean? Does this imply that information about the biology of specific species is less important? I personally think not. To date many, if not most-of the decisions regarding management are based on physical data and, if biological data are used, it is almost always focused on some aspect of botany and/or those glamorous vertebrates- the birds. More and more authorities feel that there is a great need for information about invertebrates, if we really mean it when we plan to maximize the biodiversity of ecosystems (basically, the assumption here is that management is necessary to reach or approach the maximum diversity of the ecosystem, whatever unit of biodiversity: alpha, gamma, etc., is used). Can this be accomplished if a group is essentially ignored that constitutes roughly 85-90% of all the multi-cellular animal species?

Since I regard this report to be directed primarily at non-professional readers, I have eschewed the general use of in-text documentation. I have listed a selected