## MACALESTER COLLEGE

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■ DEPARTMENT OF BIOLOGY

Ordway Bulletin No. 17

Subject: SNOWMOBILES at OREWAY.

The snowmobile is not a natural phenomenon and therefore is an intrusion onto our purpose, viz. the study of wildlife. More than once we have had study plots violated by snowmobilers. Like any other intrusion upon the Area the snowmobile is not welcome because it is an extraneous force brought to bear upon the sometimes-critically balanced environment. It has been said that no force - no matter how trivial - is without effect even though the temporal senses may entirely overlook it; thus we have the hypothetical situation of the eroding away of a granite mountain by the innocuous rubbings from the beak of a small bird.

There is a theory amongst biologists which may not require much proof, viz. that most creatures require a relatively dormant period of rest in order to properly trigger their vital cycles. We know that many mammals - bear, skunk, raccoon, gopher - spend a fair part of the year in a more or less quiescent state of hibernation or nearly so; in fact, almost all mammals are relatively inactive during our winter months; we know also that amphibians pass into a deep torpor during the winter. Just to what extent these vital processes are offended by the intrusions of motor vehicles is open to discussion but it would be difficult to support a stand that Nature's processes are aided by the noisy interruptions.

Even if snowmobiles were noiseless and emitted harmless exhaust and if they were piloted only by very skillful drivers who constantly behaved decourously it would be advisable to exclude them from the study area. They have a deleterious effect upon the land. The compacting effect of snowmobile traffic is such as to make the survival of the smaller mammals who live beneath the snow (so-called "sub-nivean" creatures) very risky. Such creatures survive by burrowing in the snow and by tunnelling for their back-and-forth traffic. When such burrows and tunnels are destroyed by compacting the creatures are forced to the surface where they become victims of severe weather and of their natural predators - hawks, owls, foxes. One study made at the Area (1970-71) indicated a serious decline in the population of meadow voles and shrews where compaction was involved. The total environmental effect of the snow-mobile may be more devastating than we now think.

In any event, the use of snowmobiles on the Ordway property is expressly forbidden and one of the rather distasteful tasks is that of asking trespassers to leave. While the cooperation of the local police does give some surveillance of the property, the best "protection" we have is the good will and thoughtful cooperation of our friends and neighbors and of the general public.

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Naturalist.

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