Their movements as usual seemed to lack decision, but the net effect of their apparently purposeless walking and aimless leaping was to spread them out from under the trees in the direction of the light, and they thinned out towards the open meadow into successive bands of approximately 25, 10 and 5 insects to the square foot, until at last in the middle of the marsh only an occasional jumper was to be seen. While the boundary of this edge of the outbreak was indefinite, the other edge, as I had often noticed before in similar cases, ended sharply at the dark evergreens, and not a snow-flea was to be found in the shadows beneath these trees. The insects are evidently possessed of a positive phototropism, although it does not work with the accuracy and directness of the similar tropism of a great many other invertebrates. Another factor in snow-flea distribution is the wind. I once saw the insects blown out on the snow in a long comet tail radiating from the base of an ironwood around which they were emerging during a strong wind, and on this occasion I am sure the fresh southerly breeze aided their spread over the meadow.

By pacing the distances and carefully estimating the average number of insects to the square foot, I calculated that there were not less than 9,000,000 to 10,000,000 *A. socialis* disporting themselves on the snow along this narrow half-mile strip. They were of a well-grown generation, most of them reaching a length of 1.5 mm. with here and there a few 2 mm. individuals, which is the maximum length of the species. *A. socialis* seldom pays any attention to the close approach of the observer, but this day they were more alert than usual, and when I bent to examine a crowded alder stem with my magnifying glass, the occupants all flung themselves off on to the snow, and when, in focusing a wide procession wandering up a tree, I brought my face close to the trunk, a rain of the insects pattered down on my cheek and ear, and the raw turnip smell was very evident.

It was 11 o'clock in the morning when I reached the beaver meadow, and up to 5 p.m. there was no very apparent change in numbers or distribution of the multitude. They kept ceaselessly crawling and leaping, but without seeming to get anywhere in particular. About 5 o'clock, however, a slightly lower temperature set in, and with the first cool breath, the insects began to leave the surface by insinuating themselves between the snow particles, and by 5.30, when I had to leave for home, the numbers visible were noticeably diminished. The temperature was still above freezing, and it was evidently the downward trend and not the absolute degree that drove them to shelter. For although the thermometer registered no lower than 28° F. during the night, and stood at 31° at 9 o'clock next morning—temperatures at which the insects often emerge abundantly—when I got back to the marsh about half past nine, not a single *Achorutes* was to be found on the trees, and 95 per cent. of those on the snow had disappeared, as I ascertained by counting the few individuals remaining on areas I had marked out the day before.

In the course of the next few days I visited the place several times to study the further behaviour of the insects, and my observations may be conveniently summarized as follows:

When the colder and drier weather drives the snow-fleas to shelter, those on the trees and shrubs reach the soil by walking down the way they came up. The insects on the snow, however, show no tendency whatever to go back to