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But the most heedless passer-by cannot overlook Achorates socialis Uzel when it makes up its mind to come out. The vast swarms literally blacken square yards of the snow around the principal foci from which they emerge. On level surfaces they may be as thick as 500 to the square foot, while in hollows and depressions in the snow—such as foot-prints—from which they cannot easily escape, they sometimes accumulate in solid masses that could be ladled out with a spoon. (I find the mark of a No. II shoe-pack an admirable snowflea trap,—and to prevent unkind inferences I hasten to point out that in winter this footwear calls for at least four pairs of heavy socks.) Spreading out from these centres, the distribution becomes thinner, though for acres the insects often run from 10 to 50 to the square foot, and examination of a yard or so of the surface anywhere over miles of country is almost certain to show two or three specimens leaping and clambering among the snow particles.

Most writers speak of snow-fleas as occurring in the spring, and it is true that some species of them seem to come out only at that season, and in general they are most abundant towards the end of the winter. But it is the effect of the mild weather whenever it occurs and not the season that brings them out, for most of them can be found on the snow every month from November to April whenever the rising temperature approaches the freezing point. Those excellent field-naturalists, the Red Indians, noticed this. Among the native weather lore recorded by F. W. Waugh in his "Iroquois Foods," the snow-fleas are said to indicate mild weather, and the Onondagas, Mr. Waugh says, called them "soft weather fleas."

But it should be borne in mind that while the snow-flea tide rises in direct relation with the temperature, the soft weather is not the determining cause of the insects' emergence. The real factor is the amount of moisture in the atmosphere. In mild weather, the large quantity of water vapor released by the melting snow soon brings the humidity, both relative and absolute, to a high figure, and the snow-fleas, finding a more

(To be continued.)

NEW APHIDS FROM OAKS.

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Vacuna californica, sp, nov.

Vacuna dryophila Schrank?. Davidson, Journal Econ. Ent., Vol. X, Apr., 1917.

In April, 1917, issue of the Journal of Economic Entomology, the writer referred this species doubtfully to *dryophila* Schrank of Europe, only a single winged individual having been taken up to the time the article (Little-known Western Plant-Lice II) was submitted for publication. Since that time more winged insects have been collected, and all prove to differ from the typical *dryophila* in the same manner as the first. It appears, therefore, that the Californian insect is worthy of specific rank.

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