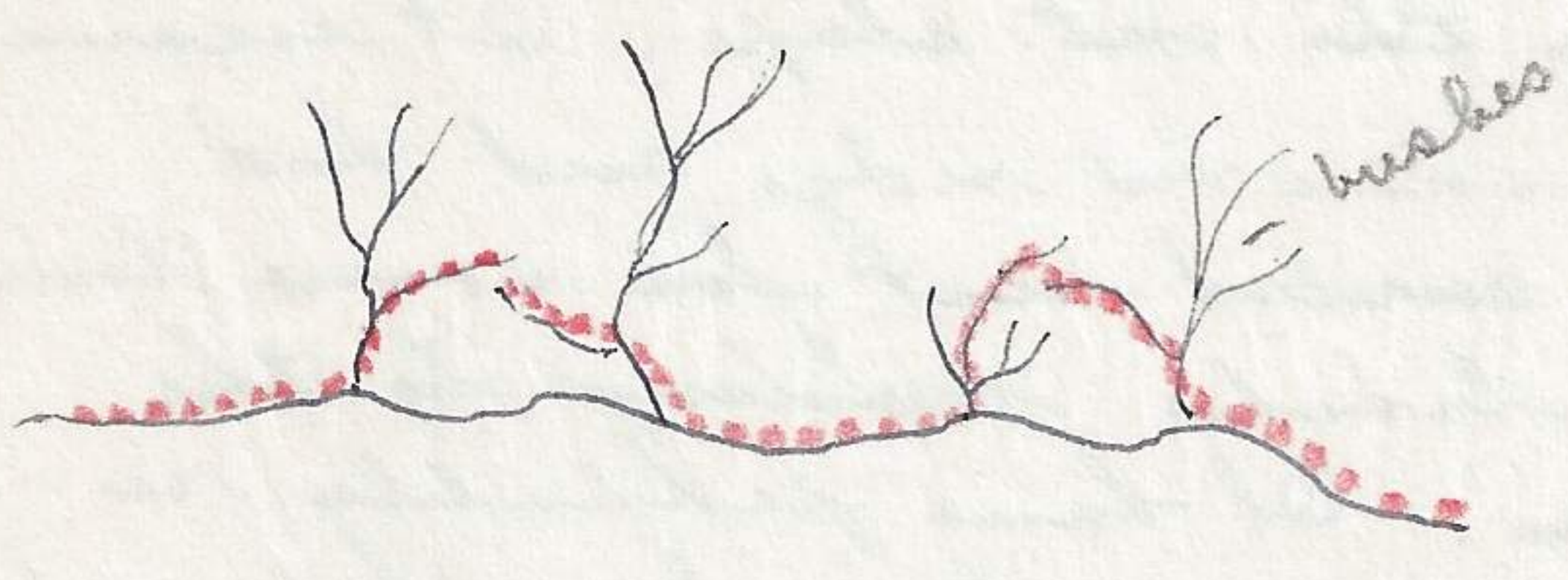


Probably the most interesting observation enroute was the mute evidence of *Peromyscus maniculatus sonoriensis* trails patterned distinctly in the soft snow surface. These snow imprints were found in their greatest concentration on Crescent ridge leading up to Santage Peak, passing thru several different vegetational situations as oak stands, bush areas, artemisia and *Chrysothamnus* areas. The one deduction made possible by the fact that the trails could be plainly followed, was the arboreal habitat of these mice. Trails upon the snow were merely used to travel from one tree to another. The trails, in general,



has a directive course. One could not determine why they used these tree highway but one would presume they were either after insects or some hidden food among the bark of the tree. When one realizes the great numbers of these forms in an area, and providing this tree living

habit is a normal thing, one can appreciate the tremendous important part they play in the check of insects inhabiting the oaks and other trees. This assumption is made upon the likelihood that they use the trees for feeding on insects and worms, neither of which would likely be found at this time of year. When one would fail to make limb contact or purposely jump down upon the snow surface, it would leave a deep imprint of its body with entire length of tail patterned in the snow. Some trails carried tail dragging marks, others did not. In an attempt to gain 100' of linear distance, the *Peromyscus* would travel by tree about 1/4 of the way, crossing from the limbs of one tree to the limbs of its neighbor. Snow surfaces made possible such observations as these. Such a habit may carry into summer time but summer conditions are not as favorable for checking upon this type of activity. White tail Jack Rabbits (?) use the ridges to feed upon the cacti leaves which are partially exposed in places by the removal of some of the snow from the ridge. The rabbits would excavate the cacti and eat a good portion of the leaves of these prickly plants. Twelve leaves were eaten in one instance. Rabbits consistently use ridge trails but in a good many instance cross diagonally across ridge and continue either straight up a hillside or straight down for long distances as if with a predetermined destination in mind. One rabbit trail was observed leading either up or down the Santage Peak exposure for a course of about 1/4 miles without deviating on either side. When a rabbit once starts in motion he carries a very straight directive course which may have played a part in its serving as such an important food for the hawks, ^{and owls} as I imagine a hawk could more easily pick up an animal following in a straight course than one indulging in an erratic route.

21 Porcupine observed. Six in canyon to right of Crescent ridge, 10 in main canyon to left leading up to Wallaburg Ridge and 5 in Walfunden canyon to west of course traversed today. Eating oak and maple. Followed one porky and found that it would use any small depression in snow to protect head, leaving back and tail exposed for defence. One porky recognized my movement at 80' and eyed us carefully. Another one made an escape at 300' but could have heard us as well as seen us. The best means of control of these animal, if were deemed necessary would be to ferret them out in winter