

was in a ⁴¹⁰⁹²²⁻¹²⁰ _{position to} realize the changes of maple seeds numbers from day to day.

9/27/41

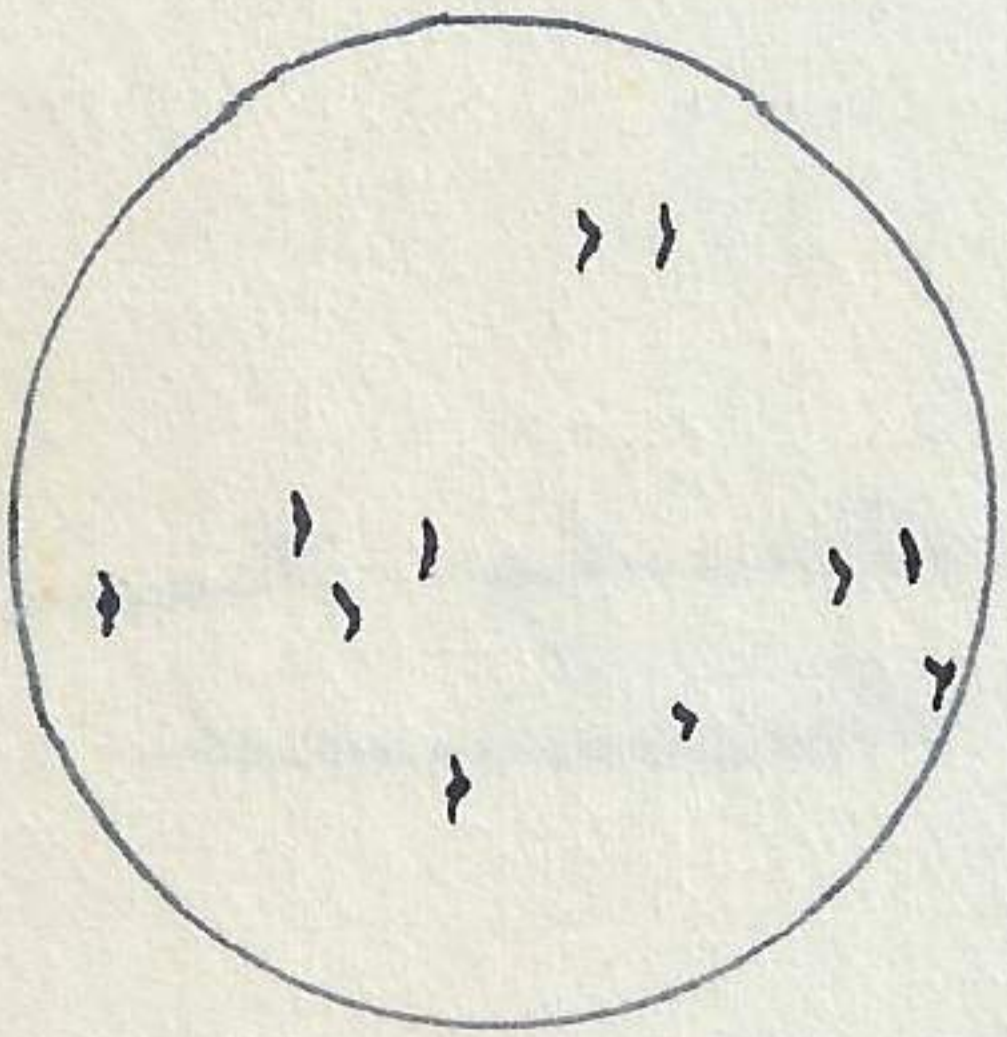
Cannon Beach Trip. Two day. as guest of Mrnd Mrs. and Nelson Vaughan. Arrived late of the above date. Enroute was impressed with wholesale burning and cutting of timber resource.

9/28/41 (Cont.)

Nelson and I left early for day at the beach being in the field from daybreak to about 4:00 AM. Coast shore-line with short protected beaches and confining cliff walls. Shore line irregular. Dense Sitka Spruce forests down to brink of wave eroded cliffs. Birds and animal forms observed from Cannon beach north to Indian beach.

Lavia stellata. Three or four of these birds present ranging close enough to see the diagnostic bill pattern.

Puffinus griseus. Probably one of the most interesting and new observation for me was the flight of the Sooty Shearwater. Thousands of birds participated in this flight movement. Shortly after early morning the flight started in a northerly direction. This continued until in the afternoon when the direction was reversed and the flight trended south. Our first observation of their flight was 6:30 A.M. when we approached the ocean front. At that time we focus our glasses on these migrating birds and counted those birds passing in one minute. Area considered from shoreline as far as the binocular range seaward would carry. Our approx. count was 180 per minute. They followed a certain section of the ocean off-shore seldom coming in closer than 2 1/2 blocks from the beach. As to how far they extended out into ocean could not say but believe the area covered would be a path 5 blocks wide. The flight was steady with birds in the field of the binoculars at all times. While there was a steady flight was able to determine a tendency toward grouping. A picture thru the binoculars would appear something like this at any time one would care to view the birds.



As stated above the direction was decidedly north in the morning and south in the afternoon. Did not observe one instance where a shearwater flew counter wise except as they would wheel around or deviate laterally. Their flight is graceful and apparently untiring, sail most of the time but with intermittent flapping of wings to gain elevation. Following wave troughs common practice. This, ^{northern} flight continued from 6:30 when first observed to about 1:30 or 2:00 P.M. in the same degree of concentration and intensity. As to the exact time the change of direction was effected could not say. At 3:00 P.M. made