# JOURNAL 1941

JAMES W. BEE

# NOTES 1941

1-2-41

Recorded the following birds at the mouth of Provo, River. Utah Co..
These birds were in river at point where it empties into the Lake.

mergus serrator 1
charitonetta albeola 2♀ 1♂
Clangonetta clangula americana 8
Gull (Sp. ?) 15
Larus glaucescens 1
anas platyrhynchos platyrhynchos 28
chaulislasmus streperus 10
mareca americana 4
Ardea herodias treganzi 2
Otyechus vociferus vociferus. 3
Podilymbus podiceps podiceps 7.

(see page 401117-194 of 1940 for this entry. 1-7-41

1-10-41

Observed 2 ardea herodias treganzi at mouth of Provo River as of above.

1-12-41

Reed Beddulph, myself and party made trip from Springdell in Provo Canyon to head of Pole Canyon, hence descended into Rock Canyon and hence to mouth of Rock Canyon. New road into this area completely changing the entire picture of its original feeling of being in the primeitic wilderness. If the people of this area could only realize what it would mean to have set aside these mountains as an example of the conditions which existed when the indians were its only occupants, they would have one of the greatest attractions in the intermountain area. A primeitic area is the condition that produces the higher values and not the wooden table beneith an artificially cleared forest.

1-17-41

Twelve Carpodacus mexicanus frontalis at home in Provo City.

1-19-41

Harry Chandler and myself made Wallsburg Ridge ascent. Commencing from south side of Deer Creek Dam gain ridge via Crescent ridge (see notes of previous trips up this ridge), hence south to high peak at the north terminal of Wallsburg Ridge proper, hence a descent down north exposure of this peak into head of Canyon leading down to the mouth of Wallsburg Canyon where it flattens out into broad sagebrush flat. The correlation of time with itinerary is as follows: Left main highway at 6:00 A.M which was daybreak, Sun on top of Timpanogos 7:42 A.M

410119-2


4a - 1-19-41

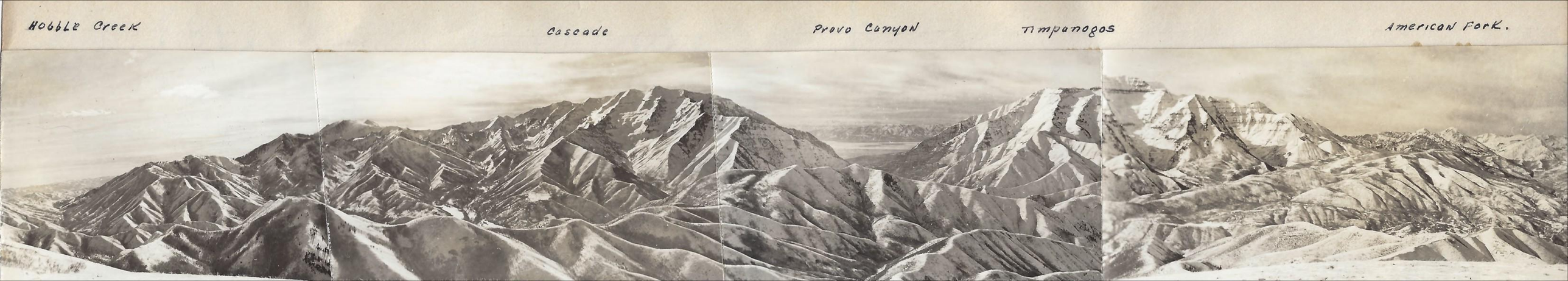
3a - 1-19-41

2a - 1-19-41

1a - 1-19-41

$\frac{1}{4}$" error of enclosure

sun on Thermometer peak 7:45 A.M, arrived at Vantage Peak at 10:30 A.M, Vantage peak is directly south of the Deer Creek Dam and is gained by Crescent Ridge which leads up to it from the east, sun hit this peak at 8:30 A.M., Wallsburg North Terminal Peak at 2:00 P.M., left peak at 2:30 P.M and arrived at car at highway at 4:00 P.M. This trip makes for an interesting hike, not from the evidence of wildlife but from the grand possibilities of being on a sky ridge with alpine sites most any direction one would desire to look. However, the study of ridge activity of animals and birds is offered here in a most interesting manner. The pictures 1a - 2a - 3a - 4a - 1-19-41 will testify to the eloquency of this adjoining scenery. Certainly one would have to travel a good many miles in this state to find a more interesting section of mountainous country back from the consideration of its geology or general interest. The ridge activity of animals is of considerable interest to me so made an occasional note as the trip progressed. One never realizes the importance of ridges in animal movement. In an attempt in establishing primitive areas, ridge interference by man made trails or roads should be of special concern. Ridges are such a small percentage of a mountain that they can be considered special areas not only because of their distinction of being limited areas of ranges but because they represent a physical or topographical situation forced upon the animal or birds choice of wanderings. The transition of environment, it is true is rather abrupt at the crest of a ridge and am wondering if animals chose these areas because of the difference of habitat or because they are merely obeying to a physical position of a mountain that demands they congregate along the crest line. The problem would be, is the ridge chosen because it is different or because they cannot reach any higher point. Likely the animals have an altitudinal craving as is the case with myself today in my desires to ascent to the highest point along the ridge.


Hobble Creek
Cascade
Provo Canyon
Timpanogos
American Fork.

Traveling the most interesting observation enroute was the mute evidence of Peromyscus maniculatus sonorensis trails patterned distinctly in the soft snow surface. These snow imprints were found in their greatest concentration on Crescent ridge leading up to Vantage Peak, passing thru several different vegetational situations as oak stands, brush areas, artemesia and chrysothamnus areas. The one deduction made possible by the fact that the trails could be plainly followed, was the arborial 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 determined 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 likelyhood 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 ¼ of the way, crossing from the limbs of one tree to the limbs of its neighbor. Snow surfaces make possible such observations as these. Such a habit may carry into summer time but summer condition are not as favorable for checking upon this type of activity.


White tail jack Rabbits (?) use the hedges to feed upon the cacti leaves which are partially exposed in places by the removable 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 Vantage 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 a factor 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 Wallahwa Ridge and 5 in Walpinden 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 an 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

410119-4

time as they can be seen for great distances as black objects in the bare trees and upon the white snow. Weasel invariable cross ridges at right angles and but rarely follow for a long distance up ridge proper. Rabbits eat abies concolor buds by biting them off at snow level; a perfect natural pruning process. One maple tree held its dried leaves. Coyote trails irregular found in single and pairs. At several point where coyote had urinated, it had scratched a furrow in snow for several feet, throwing snow some distance behind. Many fecal pellets held deer hair. Heard one call at 12:00 A.M. Examined one point on ridge where coyote had approached ridge from the east up the mt. slope. It excavated or formed a small cup shape depression in snow on ridge and had apparently remained in this position in a curled rest for some time as evidenced from the difference in age of tracks leading to the area as compared to those which left again. It have probably remained here during the day, or during the night. When it got up, it stepped upon the snow and had apparently stretched itself as the tracks indicated a stretched position of the body. It then left without much ceremony. Coyote tracks nearly always present on ridge. They travel great distances without much apparent inspection of the immediate environs. Scorpion flies and Colembola by the thousands at 12:00 A.M. One of the most unusual notes of the day was the negative fact that birds are decidedly uncommon in this ridge environments as only 2 robins were recorded for the entire day. Certain nacturnal forms of animals enjoy ridges but apparently birds do not have this animal desire. Good skiing but area not high enough for permanent conditions of snow. Coyote track measured 2 5/8". Snowshoe track 3 3/4" (probably white tail Jack or Hare.)

1-24-41

Dan Bell, Robert Frei, Lee Carlson, Dwight Taylor and myself made 3 day winter skiing trip to Twin Peak and Strawberry Peak on Strawberry Ridge. Camped in flats JUST below Strawberry Peak. Picture (1-1-26-41) is of regular winter tent equipment. Second tent pattern after my tent in foreground but was not of waterproof quality and as a result had an added problem during first night with falling snow and subsequent melting. I slept in my tent first night without discomfort. No. (1-1-25-41) on east brow of Strawberry Peak, on top. Dan, Lee, Dwight and Robert from left to right. Trees in a most ghastly mood today.

1-1-26-41

1-1-25-41

measured snow at Peak = 56". Snow depth at camp 52" Observed a set of weasel tracks which issued from a hole in the snow at the base of an aspen tree. Snowshoe rabbits observed among conifers. The concentrated occurrence of the animals is around the dense stands of fir trees, where the ground is packed from their continued use. 15 Rocky mt. Grosbeaks in area in flock formation. New snow about 1½" deep. The Snowshoe rabbits were found on top of peak where they had been eating the needles of Abies concolor. Other birds observed were: Penthestes gambeli ~~gambeli~~ sclamtbelii, Sitta canadensis, Dryobates villosus monticola, Spinus pinus pinus, Tahia (sp.?), Carpodacus Cassini (?), Buteo virgineanus (sub. sp.), Myadestes townsendi. Usual number of Peromyscus, no Tamiasciurus heard or observed. It was interesting to observed the distribution of the snow blown from the peak. As the peak acted as a barrier to the westerly winds the conifers on the lee side still retained their heavy mantle of snow.

Provo, Utah Co., Utah (mt. Timpanogos)

Jan 28, 1941

Entered this date a series of five photos (aerial) of the E exposure of mt. Timpanogos, Utah Co., Utah. taken by Reed Biddulph for use as reference of localities on Timpanogos. Date note known but probably taken during the winter season of this year. The following catalogue numbers have been assigned to these photos.

1-1-28-41 General E side (Stewart Cirque, Timpanogos glacier cirque, Am. Fork. Cirque.
2-1-28-41 Stewart Cirque area.
3-1-28-41 Larger exposure of same area as above.

4-1-28-41 American Fork terraces and Cirque and Timponeke Cirque.
5-1-28-41 Enlarged upper section of above.

(see next few pages for photos)

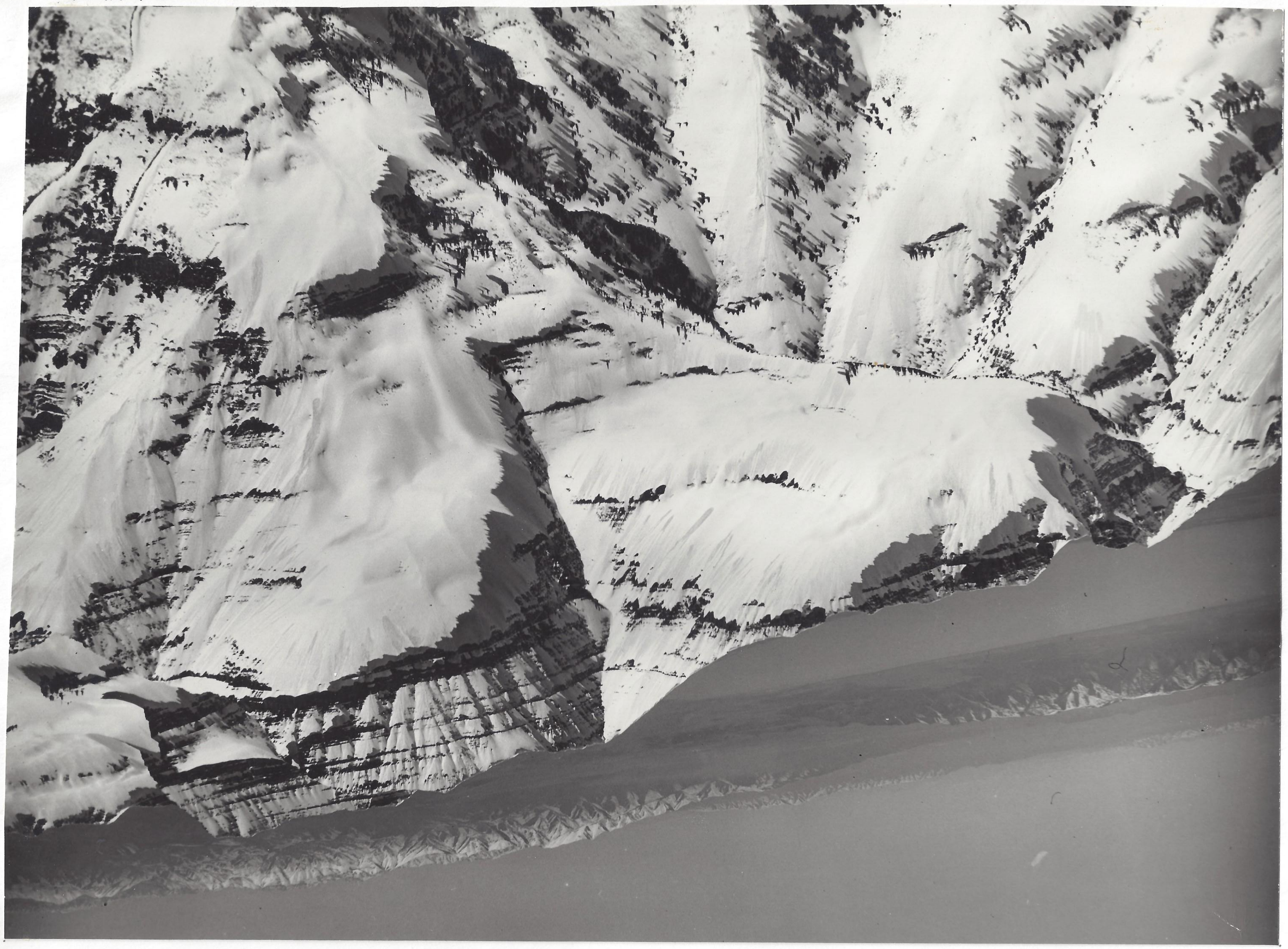
1-1-28-41

410128-5.1

2-1-28-41

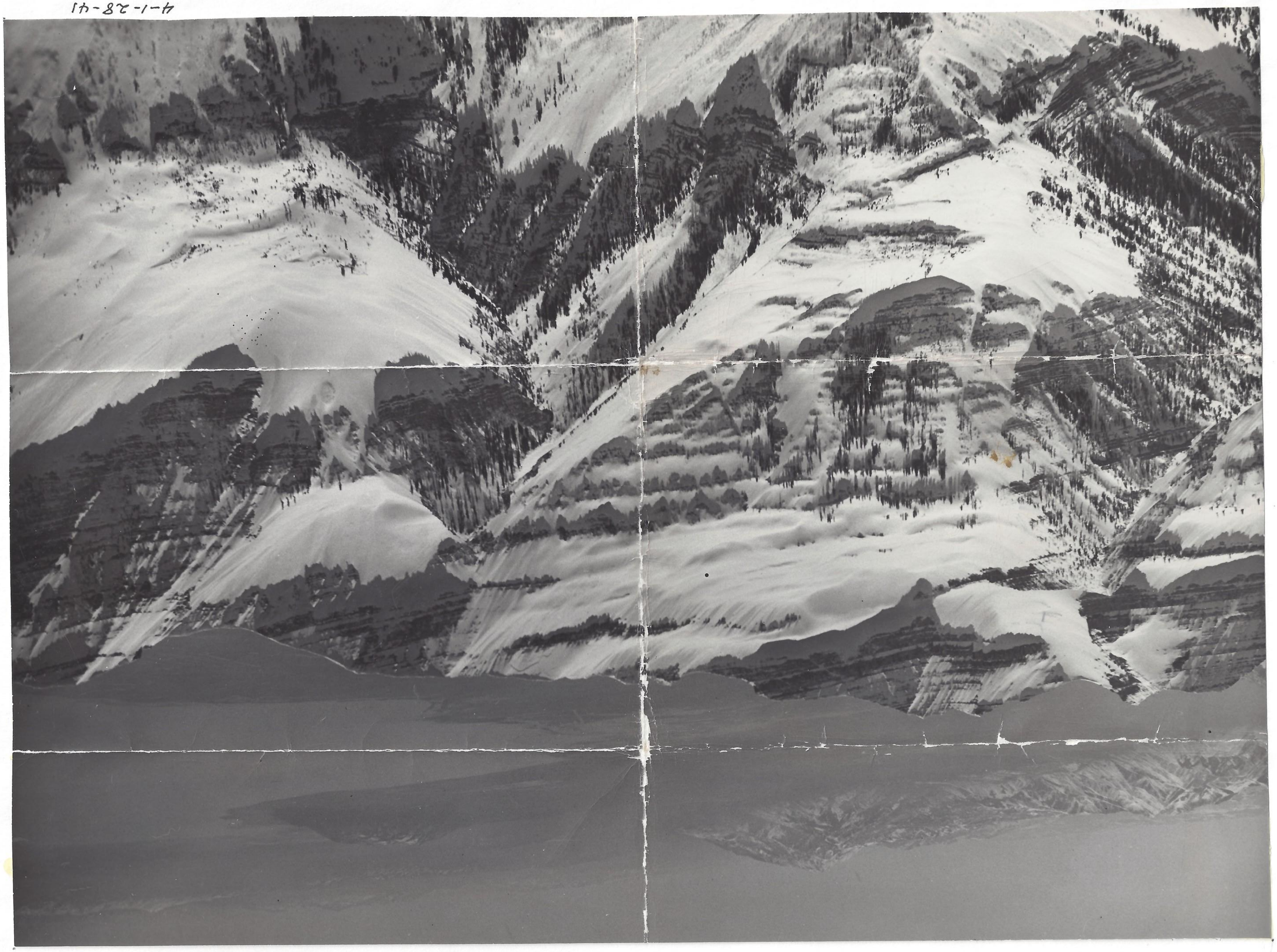
410128-5.2

3-1-28-41



410128-5.3

4-1-28-41



4101128-5.4

410128-5.5

PHOTO 5-1-28-41

2-9-41

can detect a feeling of Spring in the air today. First signs of this year.

2-13-41

Provo to Hobble Cr. via lower tracks. Identical itinerary as of trips taken few weeks previous. Today follows heavy rains and snow. Now cold and clear. A decided change in bird picture. Greater signs of spring activity of birds. Fields in general appear lifeless. Census reveals the following on trip over only:

no ducks.
Corvus brachyrhynchos brachyrhynchos 50
Melospiza melodia fallax 35. Singing frequently. ♀ and ♂ have different actions. one more alert.
Sturnella neglecta 14 (all near Bullocks Fur farm.)
Circus hudsonius 2
Aquila chrysaetos canadensis 1
Euphagus cyanocephalus 21 (one albinistic with white feathers in body and middle tail feathers white)
Junco. (sp. ?)
Passer domesticus 18

The flight of the eagle was recorded. It was first observed with binocular soaring over vicinity of State Fish Hatchery at Springville from my position near Hobble Creek on railroad tracks. It soared over hatchery in regular circles. After a few minutes it struck a north trend and dropped with partially closed wings to Columbia Steel plant. slag pile area. While at steel plant it would drop in a series of levels and hover, flapping its wings about 10 times. after descending too low would again soar upward in circular manner to gain altitude afterwhich it would repeat tactics. After spending some time here it glided without apparent wing movement west a mile or so and lit in tree at edge of Mud Lake. These actions are so different from those hunting activities associated with the higher alpine areas of the mountain habitat.

2-14-41

Flock of 120 and 8 Turdus migratorius propinquus in river bottoms at 10th West and 5th north, Provo. Provo Bench Delta.

2-15-41

Drove down to 12th South and 5th West. From car observed the following.

Branta canadensis canadensis — groups of 2-6-3
Ardea herodias treganzi 2
Buteo lagopus s.-johannis 1 (?)
Euphagus cyanocephalus 1,000
Circus hudsonicus 12 - Signs of being shot at by hunters.
Corvus brachyrhynchos brachyrhynchos 34
Others not determined.

410222-7 2-22-41

Reed Biddulph and myself made 2 day trip to head of Grove Creek on Mt. Timpanogos. Equipment consisting of usual winter tent, stove and sleeping bags. Left mouth of Grove Canyon at 1:20 P.M and arrived at Camp at 6:10 P.M. Station situated near ridge which separates American Fork Canyon from Grove Creek. Picture (1-2-23-41) taken on the following day shows our winter camp site with regular tent set-up. This spot was protected from the winds which normally rag up and down the flats and from the high and frigid zones of Mt. Timpanogos to the east. Snow and intermittent fog the following day. On our trip to camp of first afternoon found some of the most ideal weather conditions for pictures. Reed took several shots during the course of the afternoon hiking, which turned out to be masterpieces; a situation that is the usual with Reed. Give Reed a cloud and a subject and he can produce a winner every time. Most of these pictures show the south terminal of Timpanogos and Cascade range to the south. The cloud and lighting effect is just about perfect. with the strong evening lights producing the greatest effect. Picture (1-2-22-41) taken in evening with Reed in action.

1-2-22-41

1-2-23-41

After skiing late the first evening returned to our station and after supper rested in the comfort of home. Had restful night. Intermittent snow but sounded much like rain. Spent Sunday on south slopes of ridge separating Grove Creek and Am. Fork Canyon and upon the abrupt shoulders of Mt. Timpanogos. (see for ski area of today.) The slope is ideal for skiing without a question but the fact that the surface changes from day to day makes the area too changeable for popular skiing. It is also in line of snow slide which issue from several point higher upon the mountain side, adding a hazardous factor to the area. The east slope of Timp. has proven an interesting and enjoyable skiing area for

410223-8

Grove Creek, Utah Lake in distance:
2-23-41

nearing head of Grove Creek. Utah Lake in background several thousand feet below this foreground position
2-23-41

410223-9

Grove Canyon, Utah Lake in background.
2-23-41

near divide of Grove Creek and American Fork Canyon. Timpanogos to left. Cascades to the south.
2-23-41

Slopes at head of Grove Creek on Mt. Timpanogos.
2-23-41

Upper limits of Grove Creek with Big Baldy directly in back of subject.
2-23-41

410223-10

years and will always hold a reserve position in my choice, not only because of its skiing possibilities but because of its unsettled position in relation to its association with the mountain on one side and Utah Valley and lake on the other side. One of the unique moments of the day was on occasion when we were on the slopes of Timp. One moment one coned see the lake and valley below thru a window among the clouds and then in a moment one would be completely enveloped in a sea of clouds and mist with visibility not more than a few feet. This complete dissociation with ones environment gives one a peculiar feeling when stranded high upon a mountain slope. The sequence of these blackouts was clear ski, fog and mist enshrouded, then hail and finally snow, afterwhich it would become clear again. One could predict at what stage would follow and at what time one should make the ascent. Spent most of the day on the slopes of upper Grove, enjoying perfect snow conditions. In afternoon packed up and started down for mouth of Grove Creek. The descent is a long and enjoyable one. Coyotes called at sundown and yesterday. At 1 o'clock they called today. Birds rare. Rt. mt. Hairy and few smaller birds present. Few deer low in Grove. 1 hour from upper Crossover to bottom of Canyon.

2-28-41 to 3-2-41

Reed Biddulph and I spent a few days at his cabin at Aspen Grove. On way up north Fork near mouth found 2 dead deer. Porcupine at Stewarts flat apparently using a culvert for hide-up den, as evidenced from the many tracks that led into it from all directions. Reed tells me that he saw a large black bear on road at this point about 3 blocks down from Aspen Grove, early in the morning one spring day about 10 years ago. Near Aspen examined a hole where Tamiasciurus escaped. Second day out on way to divide above Stewart Flat to south observed an eagle at 3:30 P.M. flying high in slight rain. The snow slide from peak cross Dry Lake Basin and have run up opposite side and down hillside. This Basin is bad for snowslides. Met up with 2 coyotes here. Observed for first time at 300'. One large porcupine was in small tree nearby. Gray. ruff grouse present. Did not reach divide looking down into Provo Canyon but storm held up at with 200' of top. Found the slopes ideal for skiing and snow in good condition. On return trip made descent into canyon leading up from Wildwood, hence to divide and then dropping directly down into M. T. A. home at Stewarts flat. Observed 5 porcupines, 1 eagle, chickadees, nuthatches kinglets, goshawk, ruffed grouse, hairy woodpecker, juncos. Reed reports 150 robins at Aspen 3 weeks ago. There is an interesting basin just south of divide south of Stewarts flats. This basin has no outlet. Just south and west of this basin is a sharpskin nest in oak trees. Goshawk near divide. It called. One of the especially interesting notes was the absence of any record of the Clarks crow. I checked

410228-12

very carefully for this bird but did not see or hear it. the entire stay at Aspen or trip above Stewarts Flats. Rabbit tracks not common. Water Ouzel in creek on return trip, only one. From high ridge could see how the canyons such as Provo influenced the direction of cloud movement in this area east of the range. One cloud formation push south over Heber City from the north. Red reports a deer with a normal dwarf leg. He also says that deer when chased breath so hard they cannot hear one. Woodrats are very common at Aspen Grove. The skiing area above Dry Lake Basin will one day become a popular skiing slope when made more accessible.

3-1-41

Examined a colony of Dipodomys in sandy area about 1 mile south of the mouth of Spanish Fork River, near Lakeview and only a few hundred feet from shoreline.

3-2-41

Heard for the first time in the season the singing and scolding of the western Robin.

3-7-41

Dr. D. Eldon Beck, Red Biddulph and myself made a trip down the Millrace from point near Bullocks farm to channel, hence north to mouth of Provo River. Birds observed:

Buteo borealis calurus
Agelaius phoeniceus (Sub. sp.)
Branta canadensis canadensis
Melospiza melodia fallax
Sturnella neglecta
Anas p. platyrhynchos
Telmatodytes palustris (Sub. sp.)
Euphagus cyanocephalus
Corvus b. hesperis
Fulica americana
Querquedula cyanoptera.
Larus californicus
Spatula clypeata
Nettion carolinense
Ardea herodias treganzi
Micrathe mordax
Ondatra zibethica
Spizella arborea ochracea.

The dredged channel offered an opportunity to collect many of the formerly common snail which at present seems to be a thing of the past. The large spiral form. Many channels draining what remains of the former Provo Bay Lake. Willows rapidly invading the edges of the new channel. Oil and pollution of mill Race appalling. Only 3 Canadian Geese observed. The Cyprinus carpio common as usual. Tamarix invading the former lake bed of Provo bay and now the problem of reestablishing a lake will be a serious problem as these bushes will not be a very easy form of vegetation to eradicate. They more or less dominate the lake bed at present. Evidence of mange muskrats taken from the lake swamps. Micrathe active along edge of creek bank but very uncommon. Creek now several feet below bottom of former lake bed.

410307-13

3-7-41

Jack Callege of Seki informs me that the Whistling Swan have been passing thru Seki for several weeks. One bird picked up on the 5th The Sandhill Crane are also passing north at this same time.

3-9-41

Red Beddulph and wife and myself spent the day at Alta for the sheer pleasure of skiing. Availed ourself of the many sky lifts. made one trip into the upper ski basin and returned. During the course of the day took the following pictures. (no. 3-3-9-41) of the upper limits of ski lift in Cirque Basin above Alta. One can see the snow shelter at the brink of the cirque. North side of Alta in shadow and sun. no. (2-3-9-41) showing Bet to east of Alta and on north side of canyon. This mt slide continually at its upper slopes. will make an ideal mt of those who enjoy the more hazardous mt. climbing. The peak was recording in an interesting mood. no. (4-3-9-41) in same situation as no 3. The arrangement of light and dark ridge in successive order makes an interesting pictorial arrangement. no. (5-3-9-41) and (6-3-9-41) form a panoramic of alta skiing area with lifts and slopes pictured. Upper basin visible.

3-3-9-41

1-3-9-41
(see page 13.1 for enlargement)

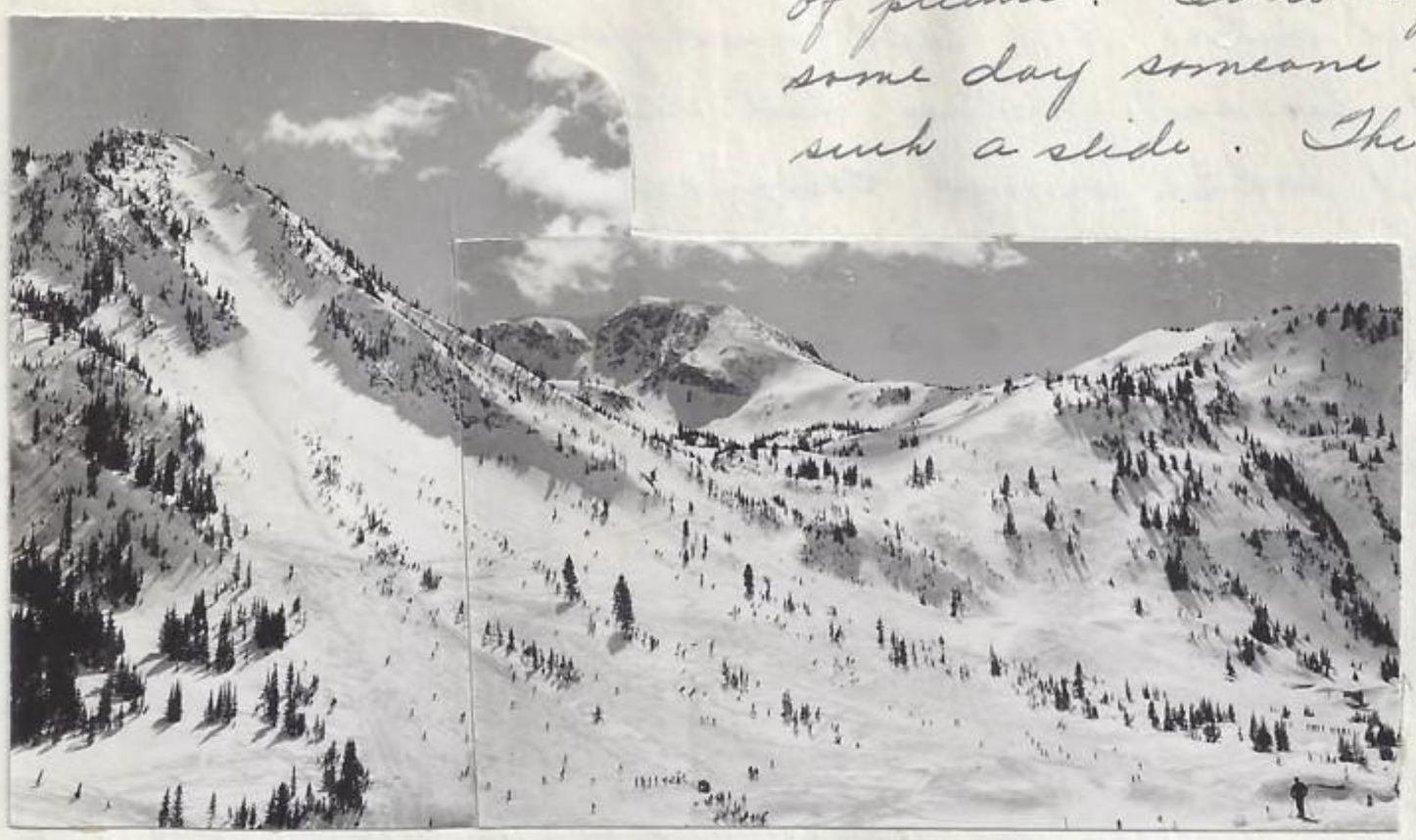
4-3-9-41

2-3-9-41

410309-13.1

1-3-9-41 JWB

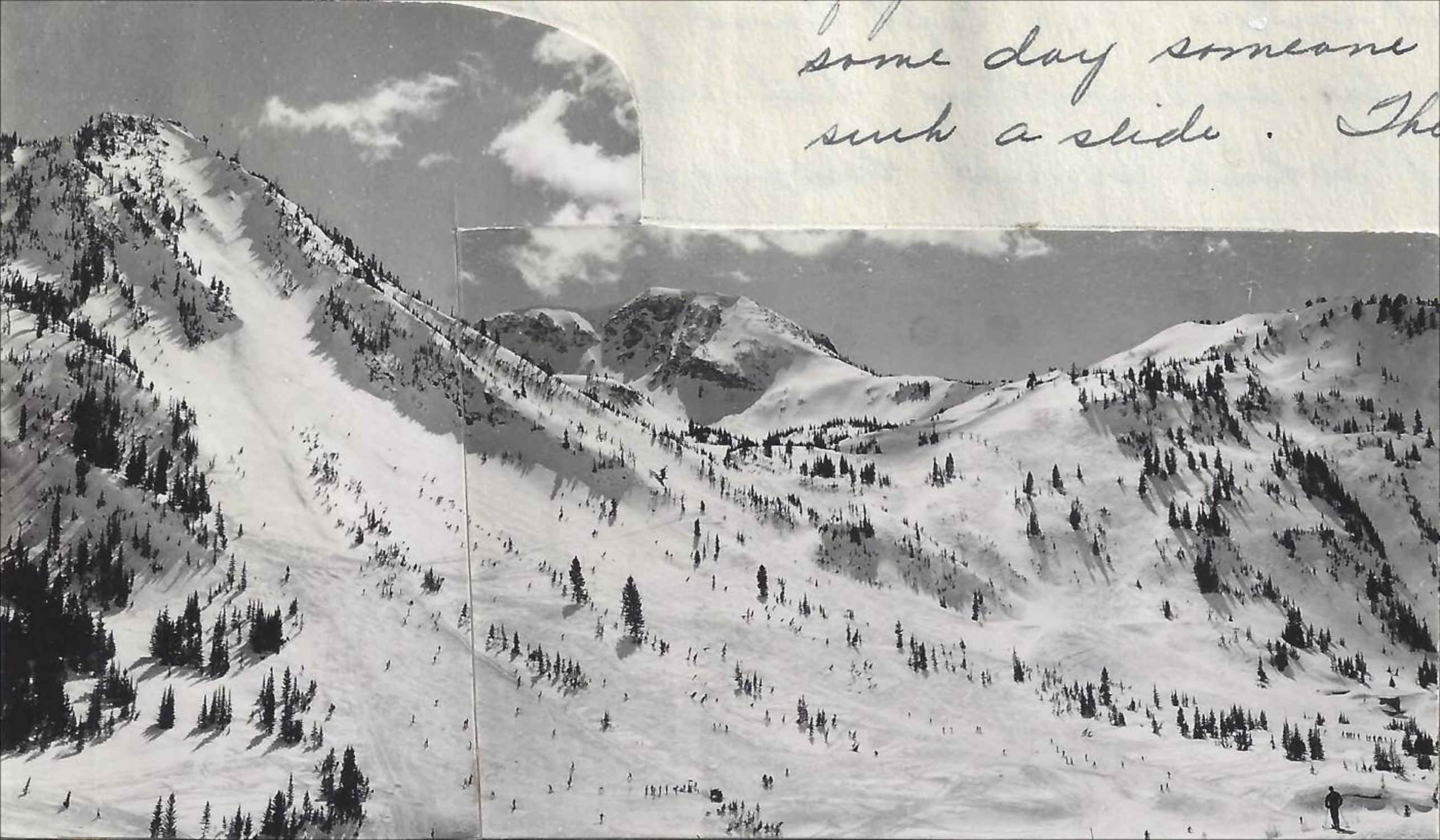
It is only too evident that many snow slides have issued from the peak on left of picture. It is highly possible that some day someone will be involved in such a slide. The avalanche tracks radiate from this peak. Most of the regular trails lead down the gulches from the brink of the upper Basin Cirque. Certainly this area can be readily compared with the alps in Switzerland and possibly the area have even some advantages to those of Switzerland. At the Lodge at Alta found the Clark Crow paying regular visits to pick up the bread crumbs left by the hungry skiers. These Crow seemed to return to the north side of the canyon. These birds nodoubt nest in the immediate area. Likely looking eagle Cliffs in right side of picture (1-3-9-41)



6-3-9-41 5-3-9-41

3-16-41

Red Beddulph and myself made Bravo Peak Ridge ascent today. This ridge always looks so inviting from the valley that one is always willing to exert that extra amount of effort, and it is an extra amount to gain the snow blown heights. The trip calls for endurance but otherwise is a relatively safe trip to make. Left from Springville at mouth of canyon first south of Little Rock Canyon at 7:00 A.M. Followed regular trail to point up ridge from Camel Pass, hence up ridge to first pass beyond dominating south terminal peak, hence down east slope thru cirque, hence down canyon ending at mouth of Pole Heaven Canyon. One takes several chances with snow slides in the descent and ascent to ridge, but ridge proper safe with only one or two point hazardous. One could encroach too near cornices or get too far down ridge slope to percepitate a slide but by following carefully as indicated in picture 5-3-16-41 one is safe. The few bird observation are recorded as follows: No birds on ridge proper. Two Golden Eagles soaring together in top of Buckley mt. Picture 4-3-16-41 indicate the top of this mountain in background. One raven flew west across the ridge and called. At the springs at head of the first canyon south of Little Rock, saw a Coyote walking around and occasionally setting down to rest or just to think it over. It left thru oak and



some day someone
such a slide. The

410316-15

maple grove. Did not seem to be nervous or in a hurry. 17 deer in lower reaches of this canyon. no deer higher up. 12 deer in Pole Heaven canyon. 7 porcupines observed. Snow to within 1 block of mouth of Pole Heaven where it enters the left hand fork of Hobble Cr.
The pictures were not too satisfactory but recorded for record mainly. Reed took several shot which proved exceptionally good. They are enlarged from Rolliflex size negative. Picture no (1-3-16-41) is of Reed during lunch time when a snow chair and table was fashioned from the lee side of a cornice. In such a position one receive the full and warming effects of the sun rays. To one not aquainted with winter hiking such a scene would suggest a coolish feeling but in reality the feeling is one more nearly approaching that of a hot July afternoon. If, however on invades the west side of the ridge the winds soon cool one off to the chilling stage. The ridge leading beyond is easily mastered without undue risk. If one is to judge the original ridge but the indications of the brush line he can account for a tremendous accumulation of snow formed on the lee side. If the lee side enjoyed a steep repose a most tremendous cornice would have been formed. No. (2-3-16-41) shows a typical section of the ridge with small figure fore a comparison. We made our descent from pass just north or beyond the last peak visible from this point at the right hand side of picture. The immediate foreground shows wind carved snow surface. Sky black from predominance of blues. Picture no. (3-3-16-41) of view to north with


1-3-16-41

3-3-16-41

2-3-16-41

Nearest
Cape
Ground
drifted snow
accumulation

410316-16

Provo Peak dominating the picture and its long sloping contour. Cascade peak and Timpanogas in background. Provo Peak very uninviting because of its avalanch potentialities. Vegetational growth kept cleared from slopes by this factor. An edaphic situation of the first order. The Cascade range has one of the most interesting and unique rock faces that I have ever seen. (No. 4-3-16-41)

4-3-16-41

is of Red with Buckley mt beyond. nice skiing slope on east side and a good deal steper than indicated in this picture. Utah Lake, West mt. and Oquirrh range in distance. no. (5-3-16-41) a typical cornice section of the ridge. This section is observable from Provo with conifer stand on right hand side of picture. On some occasions these trees become blasted white with snow. Several of them now take on a partial ghost appearance. Snows are interesting etching media for the windy blasts from the north. Many of the fir trees have suffered from the exposure at this point and how they even endure this amount of abuse is hard to realize, especially during those times when winds blow across this ridge at 80 or so miles an hour. Mapleton and Loafer Mts in background with Spanish Fork Canyon intercepting. (No. 6-3-16-41)

5-3-16-41
(see page 17.1 for enlargement)

of Provo Peak and two species of conifer in foreground. Pinus flexilis on right hand side and Abies concolor in center with Picea engelmanni on the left hand side of picture. On one foot of terminal branch of Spruce counted 43 cones. More cones than needles! Apparently these represent tops of trees above snow level.

6-3-16-41

410316-17

Too make a descent into a high glacial cirque is a problem and is perfected only with a certain amount of risk. Nearly always there is an over hanging cornice to deal with, not only to cut thru but to rest above with dangers of breaking loose at any moment to come cascading down upon one.

The lee side of this cornice is intrigately carved. No particular danger on such a cornice where slope below is not of a gravitational repose.

One majestic peak after another. Provo Peak, Cascade, Timpanogas and Granite Range, reading from right to left. A most interesting from repose to say the least. It just cannot be duplicate anywhere in this world.

5-3-16-41 JWB

410316-17.1

Looking down Little Rock Canyon with Pastures and Utah Lake in distance. Many grand old Mahogany trees line these lower ridges. Slur on slopes visible on other side of canyon.

The cirque we descended from ridge. Afternoon shadows creeping in making an ice surface off softened sunny slopes. Ride out of this Canyon to Hobble Creek below a most enjoyable one.

410320-19

3/20/41

Trip to Top of Y mountain east of Provo for the purpose of investigating the possible nesting of the Clark Crow (Nucifraga Columbiana) The area on top of this mountain has always suggested a likely spot to find these birds, as far as a favorable habitat is concerned. The general itinerary include regular trail to Y, hence to Eagle Gates, hence up slide to second series of cutbacks, hence up this draw to top of mountain. To help establish the time of year with the nesting of the Clark Crow. correlated the observations with the occurrence of bird activity enroute. Left base of trail at Bonneville level at 10:45 A.M. meadowlarks calling continuously below in cultivated fields. The birds and mammals observed along trail from start at 10:45 A.M to the Y at 11:15 A.M. are as follows.

Junco — flock of 10
Aphelocoma Californica woodhousei 4
Picoides p. hudsonica 4
Pipilo maculatus montanus.
Falco mexicanus 1 calling at cliffs above
Phasianus colchicus torquatus 2
Chickadee 1
Eutamias dorsalis utahensis 2
Citellus grammurus utah 1
Sturnella neglecta - singing continuously below. 8 at one time.
The wild onions predominant.

From the Y continued to Eagle Gate or Pass. Watched a Buteo borealis calurus fight an Aquila Chrysaetos Canadensis for a period of three minutes at 11:32 A.M. This took place above dominating peak west of Maple Flat Proper. The fighting was typical with red-tail rocketing at the eagle, the eagle merely flinching as the red-tail would approach too close, extending its legs or turning partially over. Continued up trail to next flat ledge overlooking slide and just before one enters the slate or limestone rock slide. From this area just covered recorded the Cyanocitta utahensis, Chickadee 4, Canyon Wren 1, red tail, and at 11:52 A.M observed for the first time the Clarke Crow. The next episode is concerned mainly with the experience with this bird and its mate. From the trail in slide canyon one look up the mountain side to the north and finds a dense growth of conifer and mohogany that gives one the impression of looking down upon an African Jungle. The darker tone of this mountain side is due to the mohogany, Jumpers and Abies concolor trees. The canyon wall is fairly steep and enjoys a certain amount of protection from the outcropping of cliffs and mainly to the north, or better the south exposure where the snow melt much sooner than would be the case of the north exposure or south side of the canyon. As far as the impression of warmth during the early spring is concerned would unquestionable choose this area in distinction

to other adjacent areas such as the top of the 410320-20 mountain the windy west exposure or the colder north and east sides of this mountain, but human reactions to an environment may be entirely different than those of the bird forms. The Y. mountain especially, but with practically an other front range mountain, offers an ideal habitat to those forms of wildlife that wish to effect an abrupt change of habitat in the least time or space concerned. Here in the case of the Clark Crow, the change of environment is easily changed in only a few minutes, from low transition to Hudsonian or Canadian. Would consider this nesting area as being uppermost transition but in just a few seconds the birds could easily gain the Hudsonian zone. In otherwords this mohogany, Abies concolor zone tongues into the Canadian and approaches the Hudsonian. Such is frequently true of south exposures. This variety makes for easily accessible feeding grounds in conjunction with a special sun heated zone amongst Canadian neighborhood. The manner in which I discovered these Clark Crow gives one an idea as to just how these birds make themselves know under the circumstances. Some orthnithalogist claim that these birds are very vocifirous and make their presence apparent in an aggressive manner long before one enters their sanctuary or territorial limits. Other give one the impression that that are rarely detectable around their nesting grounds without apparent concern about intrusion. In fact they are accredited with possessing such a shy personality that it is indeed unusual to locate the nest by the give-away actions of the birds. Personally I would not like to make such statements because I feel that I do not know the intricate factors associated with the actions of any member in the ecological set-up of an area. Many factor may be present that are unknown to me, that would alter the manner in which a bird is going to react when approached, at least the manner in which these birds reacted to my presence would satisfy all three of the alledged manner of action of these birds when approached. They are both quiet and noisy when approach; they make known their defense of their immediate territorial area; they approach one long before the nest is reached or one can climb nesting tree with not a bird in site etc are all supported with truth. The manner in which I approached a nesting tree today will give some idea of just how these birds reacted upon the occasion. At 11:52 from trail in Slide Canyon observed far up on the north slope among the mohogony and Abies concolor a long bird resting in the top of an Abies concolor. The upper top of this tree was dead but remainder of tree alive. This tree was more or less isolated among the mohogany grove or stand. Being some 600' away it appeared to me to be a Flicker so let it go

410320-21

at that. Even recorded it in field book. There was no other activity other than a docile flicker resting unconcernibly on a dead tree top. From this point continued up the mahogany and maple and oak draw to within 80' of this same tree. Arrived upon the scene rather unexpectantly whereupon two Clark Crows flew from tree to within 40' of me and lit in top of a juniper and then for the first time I heard their calls. Now in a setting of Junipers, pinyon, cliffrose, mahogany and isolated Abies Concolor. Two pinyons present. The two bird that approached me showed signs of degree of aggressiveness and will be indicated in description on that basis. Probably sex difference. The point to be emphasized is the fact that they only called for 5 or six second upon my first entrance upon the scene but those first calls were emphatic in several respects. They called very little after that first sign of resentment. I feel that if I had not made the approach so unexpectantly to them would have been approached sooner than 80' nor would I have received such a startling welcome. They both remained on top of tree for seven seconds and then the less aggressive flew down to the base of another mahogany 30' away toward the nesting tree and commenced to hop about among the lower branches. The aggressive bird remained for 15 seconds longer and then flew 15' away toward the nest and lit in the top of a dead, finely branched mt. mahogany tree and immediately started breaking of the small upper terminal branches. After 2 minutes they flew 100' to within 30' of the nesting tree but could not see their actions. They did not call what they were concerned about in the next four minutes I could not detect but as I could see nesting tree could establish the fact that they did not enter the tree. After the 4 minutes had passed I started toward the tree and when within 50' I was greeted by both birds, this time they were not concerned about me by disclosed their nesting tree in a most evident manner. They flew to top five branches of the tree and with a mouth full of sticks each went in turn to the nest structure and placed their contributions upon the future home. The manner in which the other bird await patiently outside until the first bird had placed its share of material upon the nest and had returned was a most perfect sign of courtesy. While I remained motionless at 50' they made two trip to the nest, each time bring a mouth full of sticks averaging 1/8" thick and 4-5" long. Realizing that I know had a nest of this bird decided to establish an observation station. In order that I would not be a factor in the activity of these birds chose a hidden spot 400' west of this tree. As I stated above, the initial meeting was a vigorous and vociferous one but afterwards they carried on their activity without much concern about my presence. The special concern about the nest and their general emphasized actions were unquestionably motivated by my entrance upon the scene. I did not go any closer than 50' when I realized

410320-22

that they had a nest in this tree and in order not to make too much commotion I left for the observation station. The birds did not follow me or make any signs of ~~my~~ being disturbed about my departure. All my movements were slow and deliberate except, of course, my first surprise contact with them. Planned to watch the actions of these birds for the rest of the day but an incident intervened which changed the intentions. At 12:10 A.M it started to rain and hail followed by dense fog. At 12:35 it stopped. From the time it started to rain to 12:25 P.M. the two birds remained 150' above the nest and made peculiar noise and croaking like a frog. After 12:25 P.M they stopped and neither bird nor sound was heard for the rest of the stay at the observation station. except one croak at 1:45 P.M west of me. At 2:00 P.M left station and inspected nest in tree by climbing to it. no. birds in evidence while at nest. Weather now cold, slight rain and misty. The abrupt change of weather conditions may have altered the actions of these birds from one of concern ~~when~~ favorable weather to one of disconcern with change of fair weather to one of adversity. The suddeness of the change of weather conditions at the most critical period of my inspection of these birds was evident so recorded to bear evidence of its effect upon their actions. Certainly I could not have had a more opportune occasion to contact these birds with so many varying factors operating in such a short time. At 11:50 A.M Utah Valley was free of any clouds formation except those clouds above the mountain range proper. A few minutes later a storm cloud left Cedar Valley and pushed S. E towards Loafer mountain, hence swung around to the north and shortly envelopping my position. It approached with a bold front attended with strong wind, mist and rain. The up canyon wind would almost blow a man down. This storm advanced with lightning. One noticeable bolt struck an area near Bullock Fur Farm in the valley below. The ground was received with a peramd of white hot light for several seconds. At one twenty P.M it lightning near in Slide Canyon and the vibrations percipitated 3 snow slides on the north end of Mt. Flat mountain. This par was followed by a hail storm immediately after. Some of the hail large enough to cause one to shelter head. The initial storm was accompanied by a fog or mist which changed a light airy environment to one of dark, dull situation. It remmded me of turning off the electric lights in a room at home. The wind, as mentioned before at this thunder storm front was a sevier gale. At about 1:50 it started to snow. Snows and rains continued the rest of the day. Left at 2:00 P.M because I caned not remain in such a trying environment and only

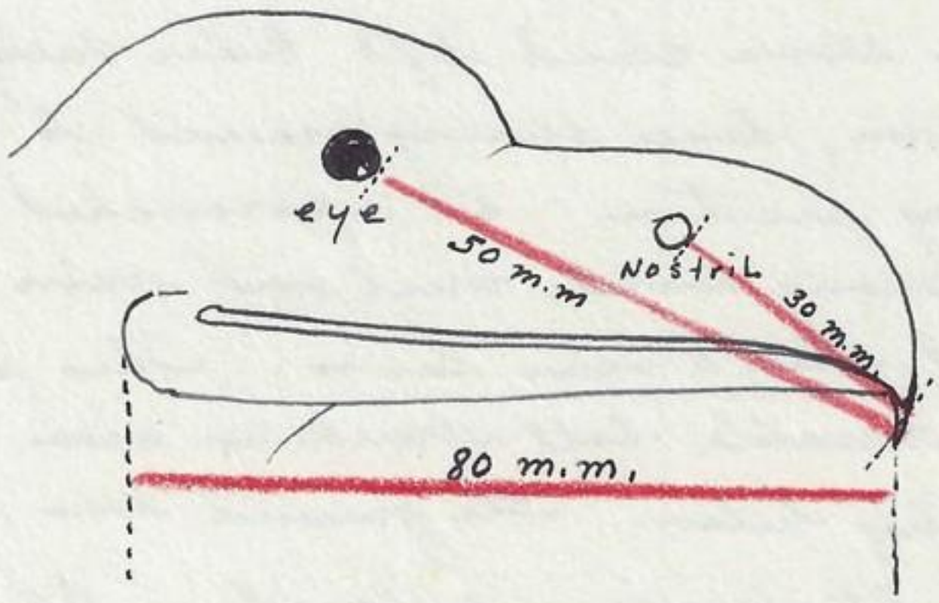
410320-23

too glad to descend into a more gentle and less vigorous position. On way past nest I pounded the structure. Nest placed on west side of trunk 12' up in tree and about 4' down from uppermost growth of live limbs. 2½ to 3' in from outer peripheral edge of tree. Tree malformed with dead branches generally distributed throughout tree. Nest a fragile platform of about 50 small mahogany sticks 1/8" wide and 4 to 8 inches long. They approached nest from the west entrance. Will take picture on a subsequent trip. Snow remnants on most of the ground around tree. Before and after the first part of the storm a Myadisles townsendi called continuously about 800' west of the Clark Crow nest. This contact with these birds indicated to me how variable the actions of a bird or animal will be in obeyance to the many factors operating in the environment and how unsafe it is for one to judge all actions of the forms from too inadequate information, at least from evidence not including the many different situations and conditions under which the forms might be operating. To me, nature's interrelationships are too intricate to make conclusive statements from our more or less superficial observations.

3/22/41

Eagle taken from a nest at Holden, Utah. Apparently it had become entangled in nest structure and had died from starvation and inactivity and exposure.

The foot measured 60. m.m (middle toe without claw) measurement of head from nostril to end of beak; from eye to end of beak; and length of lower jaw.




3/23/41

Dr Beck and I made trip to Rock Island in Utah Lake to check upon the progress of California Gull nesting (Larus Californicus) as we approached the island found the Gulls (300) flying over the nesting area. As we entered harbor they flew to the peripheral edge. Some places looked as if they had excavated a nesting foundation but no nesting material had been deposited upon the island. No birds flying while we made our inspection tour. All adult gulls present. Very little white excreta on island as compared to layers of it later on during

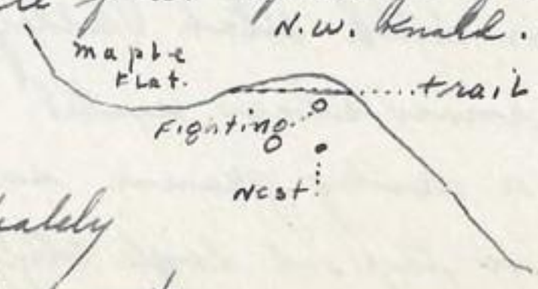
410323-24

1-3-23-41

late nesting. The experimental area established by Dr. Beck earlier in the season (picture no. 1-4-23-41) supported 4 excavation pits and four white excreta marks. No gull visible on island. The island had a few visitors other than gulls to the extent of Peromyscus, 2 domestic rabbits, 4 Double Crested Cormorants, 1 killdeer, 1 song sparrow. Dr. Beck reports 15 American white Pelican on island last week when he made an inspection tour. One larger gull which appeared to be foreign. No tern. Examined larva casements made of varied colored clay and found beneith the travertine rocks. Found the ducks congregated at mouth of Mud-Lake. Utah Lake. These ducks have been forced out of Mud lake by water drainage and are now occupying the last vestige of this extinct lake. They must have acquired a feeling for this old lake and are rather loathe to leave the area all together!!

3/24/41

Top of Y Mt to investigate further the nesting of the Clark Crow. Located one nest of the Crow! This nest was discovered from the Y mt. but is located on Maple Flat Mt. on north exposure below the north terminal of the Maple Flat area. Nest indicated on picture 2-2-4-40 of last year. Recorded birds observed enroute. Left Base of Y trail at Bonneville level at 9:00 A.M. magpies 12, meadowlarks 15, Juncos. 9:00 A.M 9:09 A.M Spurred Towhee calling. 9:10 A.M Woodhouse Jay calling. Snow now 1 inch deep. 9:25 Red tail flying by Y, 2 soaring one mile to the south. At 9:37 A.M. arrived at base of Y Six quail tracks in snow. Cottontails tracks. 9:38. Red tail sailing and circling 1 block to north. Between Y and Eagle Pass observed 2 Cottontails and 2 Peromyscus tracks in snow. Arrived Eagle Pass at 9:48 A.M. As soon as I made my appearance at the pass over looking Slide Canyon, the two red tails nesting approached me and called. Continued Slide Canyon trail and at 10:00 A.M. my attention was drawn to the scene of 2 Clark Crows fighting a red-tail hawk. This indicated that the fighting was near their territory and that likely they were at the stage of nest construction and both birds were free to ~~stop~~ their invader. When I first observed them they were scrapping intimately with this hawk, diving at it and causing it all sorts of grief. This took place about 100' below the trail that cuts over to Maple flat springs from the old logging trail. The chased this hawk up the mt side to point where it could escape to the south and west. The 2 Clark Crow then immediately returned to point where fight was most sevier and at point



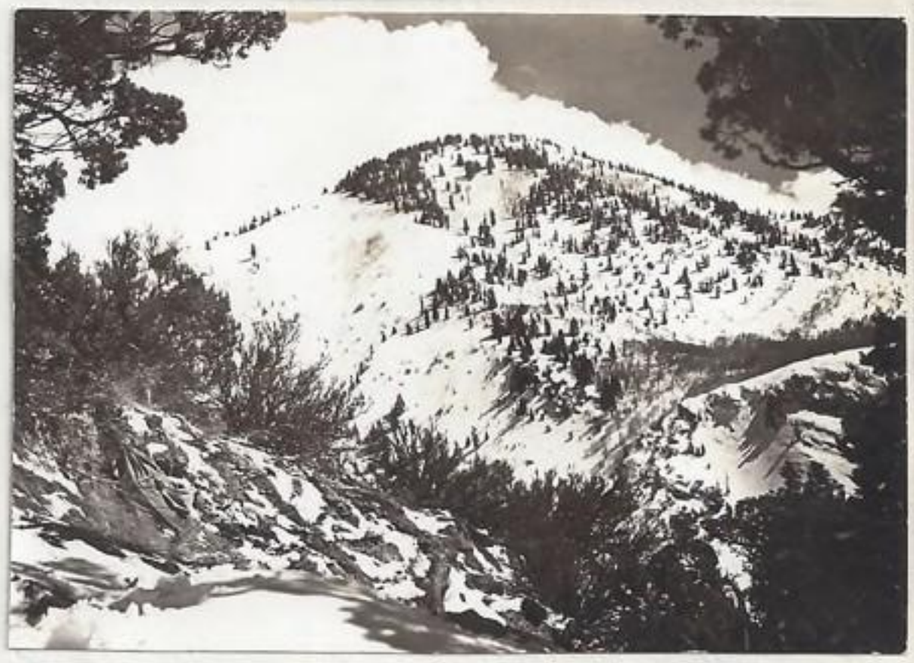
410324-25 them, and lit in top of a conifer tree. They re-
where I first observed them
main here at rest for 2 minutes as if resting and then flew or dropped
down to their nesting tree a few hundred feet directly below. This was accomplished
in four steps but very direct. At 10:06 they arrived at nesting tree and
disclosed their nesting tree. At 10:06 1/2 A.M they both left tree and each
went about 100' away and returned to nest with nesting material, each
placing material on nest or at least they each went into tree and then re-
turned. At 10:07 A.M they made another trip out and returned with nest
material. At 10:08 A.M. At 10:09 they made another trip keeping mainly
within a 200' radius. Their choice of areas for gathering material varied. At 10:12
2 falcon passed. At 10:12 A.M 3 red tail hawks appeared and 2 of them
started to fight. The Clark Crow responded with calls but did not leave
area. The fighting hawks were circling high and probably out of the im-
mediate territorial zone of the Crow. A few minutes later the Crow
ceased activity and I lost track of them. I think they remained,
however in the same area around nest. The actions of these birds
closely paralleled the actions of those birds observed on the 20th of
March a few days ago. The factor responsible for their concern was
man in one case and bird invader in the other case, the end result was
about the same. The last trip was of this nature: The two birds
met me and called vociferously and then when I left and hid which
was the same as being driven off in the case of the red-tail, they
started in an ambitious way to build their nest. If this added
impetus was continued for any length of time the nest would have
been built in good shape but I hardly think that these birds work
so assiduously at all times. The new stimulus of invader contact ap-
pears to initiate that extra nest building activity. It could help but
think how closely the two occasions compared. There is just enough
information recorded to allow one to speculate on their interesting be-
havior. Do all occasions of aggression stimulate nest building or to
what degree of interference is necessary to cause them to add another
stick to the nest. The red tail caused more trip in bring material
to their nests ~~than the~~ my appearance. However their was relatively
less activity or energy extended for my behalf as there was in the dur-
ing and attacks upon the poor red-tail. Probably the amount of
energy used or anger aroused is the determing factor in nest building.
This mental(?) attitude of animals and birds should be considered in
their ecological set-up. I'm wondering if the Clark Crow would ever
complete their nest in normal time if they did not have a hawk, or
predator to egg them on. This trip today was made to top of Y mt.
by following from the platform above ~~Eagle~~ Pass up the S.W ridge of the
mountain with Utah Valley to the west and Slide Canyon to the east. Did
not use snow shoes until near top but permanent snows before that point.
At 11:00 a dusky grouse sail from top of Y mt over to Maple flat mt.
Arrived on top at Eagle cliff at 2:00 P.M. Eagle on nest. It left and when I

410324-26

returned at 5:00 P.M it was on nest. Spent the period from 2:00 to 5:00 on top. Found 2 clark Crow on north exposure of Rock Canyon in about the same situation as the 2 birds on north exposure of Slide Canyon. When I first approach the north bank of Y mt. and looked down in Canyon I heard these 2 birds starting to call directly below. They did not approach me but feel that they were nesting birds. Very few animal tracks. Only a few set of snowshoe rabbit tracks on top. Coyote called in upper Rock Canyon at 2:00 P.M. 15 dusky grouse observed, mainly in conifers on top. Grouse tracks in evidence. Few porcupine. Few mt. Chickadee. Utah Jay active in evening. Robins move up slide at evening time. Canyon Wren called. Coyote tracks not uncommon. Recorded the following pictures while enroute and during my stay on top of this most interesting mt. Panatomic film and yellow filter:

no (1- 3.24-41) taken from valley bordering ridge leading to top of mountain. This ridge is a most fascinating one due to the fact that one can see the valley below as well as the country and canyon to the east. Taken about 1/2 way up ridge. The storms kept me worried but being prepared did not mind an unfavorable eventuality. as it turned out the day was perfect and ideal for picture work. These storms would pass over the city and valley in a regular and periodic fashion. One only had to wait and he would find most any kind of cloud effect he might choose. One storm now is pushing in from lake and is encroaching upon the city and pasture land. Mudlake, as outlined, became a extinct entity with rushes completely occupying the former lake. The burnt patches of the lake area indicate rush areas which are plainly visible. Drainage is nearly completed with drainage channel sapping last few ponds of the former lake. The gradual shrinking of this lake by drainage of water Users Association spells disaster to many native birds and animals that at one time enjoyed the protection and food offered by its waters. Some day this lake will support a second grade pasture land or potatoe crop. Picture (2-3.24-41) shows the view to the east from about the same point as picture above. Snowshoes and camera sack in left hand side of picture. Maple flat Mt. in background. Interesting cleared area on north exposure of mountain probably produced by fire or woodcutting operations of years ago. Spring area and north terminal of Maple Flat. Extent

1-3-24-41



2-3-24-41

410324-27

of snow, indicated. Juniper & cuff rose, mohogany common along this route. One set of coyote track on this ridge. Picture no (3-3-24-41)

3-3-24-41

another view to west. overlooking Provo City. Storm cloud dropping down from Lake mountain into Utah Lake. It will continue on in an S. E. direction as storm of previous picture. These storms are the ones that are of concern to the boaters on Utah Lake. Juniper framing picture above. Picture no (4-3-24-41) showing Provo Peak capped with cloud. nearing top of mt. Upper right hand fork of Rock pirating into Slide Canyon. The conifers in foreground and on hillside behind on left hand side of picture appear to me to be good Clark Crow country. This type of cloud condition prevailed during my visit to this mountain.

4-3-24-41

Picture no. (5-3-24-41) of Eagle Cliff and upper limits of Rock Canyon. Delicate lighting. Cloud wisp on Windy pass. Bird had just left its nest from cliffs on right hand side of pictures. Ledge of Eagle Cliff not visible. While on top for 3 hours this bird had returned to nest sometime during that period. Abies concolor on left hand side of picture.

5-3-24-41

Picture no (6-3-24-41) of Cascade Range taken from top of Y mt. Certainly such a setting and delicate arrangement of clouds should stir the emotions of anyone. It is

410324-27.1

6-3-24-41 JWB

7-3-24-41 JWB.

410324-27.2

quite evident that the proper angle to take a picture is 90° to the sun. Picture 6-3-24-41 could be compare to any mt in the west. The chimneys on its southern slopes are well pronounced. Strata of Limestone. Picture no. (7-3-24-41) is from top of Y. mt. shoting south with top of Maple Flat mt in the background. The abruptness of the conifer margin can likely be explainable by being produced by a fire lane. This mountain is safely climbable in winter time via of aspen crowded canyon leading down from the top. Practically all snow avalanches are reduced to a minimum. These beautiful clouds passed over these mountains in an never ending procession. Lack of film prohibited me from shooting such scenes as these at practically any direction I wish to record. Snow in perfect condition for skiing. Grouse found frequently in these conifers of Abies concolor and Pseudotsuga mucronata. Few snowshoe tracks around trees and an occasional grouse track. The top of Y. mountain in either summer or winter is one of the most advantageous points along the entire Wasatch Range, particularly for those who wish to see the best of scenery. Picture (8-3-24-41) of a mahogany with Provo Peak in distance. These mahogany are tonguing into the more typical Canadian zone or Canadian-Hudsonian zone. These trees support nest similar to those constructed by the Utah Jay. On return trip dropped down into slide canyon down main canyon leading of Y mt and hence down slide on regular trail. On way up this morning checked Clark Crow nest of 3-20-41 and found neither birds in area and nest had not been touched since I saw them work on it 4 days ago. Could they have moved across the canyon?

6-3-24-41
(see page 27.1 for enlargement)

(see page 27.2 for enlargement)

8-3-24-41

410327-29 3/27/41

Trip to Maple Flat. Solitary. Left from base of Maple Flat mountain at 12:20 P.M. Itinerary including log trail, across Maple Flat to Mother Loons Nose, hence return same route. At 12:21 observed 12 Shufeldt Juncos, 2 magpie and 1 rock squirrel. 3 meadowlarks calling as compared to continual calling and singing of these birds during the morning hours. 12:35 P.M a ♂ deer left 200' above Bonneville level and trended up canyon. Many deer tracks at this level. 12:40 P.M. 10 Juncos probably Shufeldts. At 1:08 arrived at the first rock ledge gate that intercepts trail. Many fresh deer tracks so far indicating their range at this time of year. At 1:10 at conspicuous chimney and unscalable ridge peak to left or north. At 1:15 P.M a woodhouse Jay flew down the ridge calling and lit 100' away and after a few minutes left and continued down canyon still calling. While I was standing still looking down into Slide a red tail lit on top of chimney rock 200' away. I was in plain site but it did not see me for 12 seconds afterwhich it flew in a startled manner offering its characteristic call. It was unquestionably frightened. It called and circled high. 2 other red tail dropped like a bullet into nest area in Slide Canyon. 1:25 P.M arrived at pass on ridge from Slide Canyon. Few deer use this area. Chickadee, Junco and Utah Jay calling. 1:40 P.M 9 deer 200' above left to south. and up canyon. 1:46 P.M Conversous point on ridge. At this fault valley there is a flat large enough for tent. 1:55 P.M yellow ledge intercepted. 2:18 P.M 2 deer 2:20 P.M 6 deer 2:30 P.M at trail cut off around north end of Maple Flat. Snowshoe rabbit tracks coming in now. Arrived at top of Maple Flat knoll at 2:45 P.M. At this point took picture no. (1-3-27-41) showing the Dusky Grouse tracks on surface of snow. Their presence noticeable at this particular point. Several snowshoe rabbits using this particular area probably due to the association of conifer on north exposure. Mahogany silhouette. Utah Lake in distance. From this point continued south thru aspens, oaks and maples to the point of Mother Loons Nose. Chickadees, nuthatch, ut jay, weasel tracks, deer tracks, Grouse tracks on top.

1-3-27-41
(see page 29.1 for enlargement)

1-3-27-41- JWB

410327-29.1

410327-30

At point took picture (2-3-27-41) of Buckley mountain showing overturned fold. Large pumpers on left hand side of picture. Anticipate ascent of this mt. in near future to check upon the Clark Crow. This trip of today was to inspect from this point the south exposure of Maple flat mountain as it is suitable, in my estimation for nesting possibilities of these birds. No evidence today of these birds. Picture (3-3-27-41) From Looneys nose with a mohogany in silhouette against the western sky. Made return trip as ascent. Pronghorns tracks numerous on Maple flat. Snowshoes common. Deer ranging below the brink of Maple flat to the bottom of the mountain to the Bonneville level. Snowshoes were required for this trip.

2-3-27-41

3-3-27-41

3/30/41

Bopelder Canyon for Clark Crow and Golden Eagle. Bopelder Canyon in Wasatch Range east of Alpine. Made ascent up ridge on south side of the canyon. Picture accompanying will indicate heighth gain on this trip. Our objective was to check upon the status of the Clark Crow which was known to have nesting in this area. Have been satisfied that these birds have nested upon the north side of Bopelder Canyon and feel that they should also be found here. In a 20 minute walk across the flats toward mouth of Bopelder Canyon found the following birds: Colaptes cafer collaris, Cyanocitta stelleri utahensis; Aphelocoma californica woodhousei; Junco (sp.?), Penthestes (sp.?), Pica pica hudsonia. This area of artemesia and oaks. Left mouth of Bopelder at 12:20 P.M. Cyanocitta s. utahensis, Rock Squirrel calling. Several Sceloporus active.

12:36 Eutamias dorsalis utahensis called as we passed.

12:45 3 Aphelocoma californica woodhousei concerned, Colaptes cafer collaris calling up canyon.

12:50 Grouse heard winging above. Pica pica hudsonica calling

1:00 Aquila chrysaetos canadensis gyrating up ridge at first conspicuous knoll. It continued to the north west in series of up & down movements.

410330-31

1:02 One on flat area used by deer.
> deer at mahogany >
1:15 Picoides hudsonicus flying to the south
1:18. Aquila chrysaetos canadensis in same area again. Chickadee called.
1:43. Colaptes cafer collaris calling. 2 Papilio machaonus montanus
1:55. Arrived at knoll. Investigated mahogany, juniper and abies concolor of this area. Picture no. (2-3-30-41) showing this flat. From this vantage point witnessed a rather brief but unusual thing. The eagle approach the nest (as indicated in picture (7-3-30-41)) and a prairie falcon approach and vigorously struck at the eagle three times. The eagle continued to circle out from nest and finally lit in a fir tree about 200' away. From its tree position it flew to nest for a few minutes and then it either left or its mate left and flew in a more direct route out into west valley to the N.W. circled and gyrated, circled, then to east to area of old alternate nest as indicated in picture (4-3-30-41), circled and gyrated, then to valley again, hence to old nest, circled. At 2:30 P.M it was joined by mate and from then on they circled up and out of sight, the smaller bird following the larger. Finally they past out of sight about this time heard the Clark Crow calling from north side of canyon above nest and to the east a draw or two. They called for about 8 minutes and then complete quite. The only bird observed on the south side was one which pulled up the north exposure of the canyon and after tarrying a few minutes in conifer on left hand side of picture (3-3-30-41) work way up ridge and to the right. Associated with the eagle, falcon and Clark Crow was the Corvus corax sinuatus which call occasionally. After being satisfied that the area probably supported Clark Clark returned to car. On return trip observed 11 deer. 5 of them at 4:00 P.M and 4:05 six more. Took the following picture for record.

2-3-30-41

no (2-3-30-41) of mahogany, juniper, maple, conifer and oak flat. This flat on an otherwise steep mountain was found to be an inviting area for deer and certain grouping of birds. Its topography is suggestive of a fault. Granite range in background.

3-3-30-41

no. (3-3-30-41) indicating highest point of ridge of today trip (at camera point). Conifers at this section a very likely spot for a Nucifraga Columbia, an area as judged from our experience with this bird.

5-3-30-41

Picture (5-3-30-41) looking south along range with many favorable north exposures for Clark Crow, bounded by south exposure on opposite side of ridges. Considerable snow remains upon the slopes and indicated conditions under which one seeks for this bird. Strata dipping to west.

1-3-30-41

above picture indicating the eagle cliff area on north side of Boulder Canyon. Granite Range in background. Mt. Mahogany in foreground.

4-3-30-41

Bapelder or Sleigh-runner peak at head of Bapelder Canyon. Arrow indicating alternate nesting site of Golden Eagle and area where it was attracted this morning. These slopes appear to be favorable nesting areas for Clark Crow but have never found nests at this heighth. They seem to prefer those areas between the lower nesting site and this alternate site.

7-3-30-41

nesting site of golden eagle on north side of Bapelder Canyon. Granite range in background. Area on a level 200' above nest and further up canyon would be, in my estimation a favorable zone for Clark Crow.


D

410330-33

6-3-30-41

On descent Dad poses for picture. Abies concolor and mahogany as border, snow slopes and exposures favorable for Clark Crow. From results of todays observations make the following conclusions. Nucifraga unquestionably occupying the slopes of Boulder Canyon and ridges but unable to satisfy as to any specific territorial area. Also that the eagle, falcon, raven, and Clark Crow lead a life of interrelationships, some of which are direct and very evident.

3-31-41

Dad and I made trip to head of Slide Canyon to check further on nest of Clark Crow of 3-24-41. Left about 9:30 A.M. Only occasional meadowlark calling in pastures at foot of mountain. L.S. Towhee singing as we proceeded up trail to 'Y' 3 butterflies from base of trail to Y. 2 mourning cloaks at Y. Stork bills in blossom at base of trail. Spring beauties among oaks. 3 pine siskin and group of quail near Y. All good signs of spring. Woodhouse Jay and Magpie near Eagle Gate. The red tails who occupy the nest on cliff directly across Canyon from this point were copulating in a juniper tree only a few hundred feet, 500', below the Clark Crow nest and only some 200' or less their own nest. At 11:45 A.M observed the Clark Crow molesting an owl or hawk which was perched close to the trunk of a dead conifer at the top of the knoll of Maple flat some 300' above Clark Crow nest. Many repeated attacks of a apparently contact nature failed to dislodge the tightly situated bird. It is from the general actions of this bird that suggested the identity as an owl, probably a Great Horned Owl. This episode was suggestive of a similar aggressive act of these Clark Crow a few weeks ago in their attack against a pair of red tail hawk. We left the canyon floor on slide and trended up the north side among pinyon, juniper, mahogany and conifers to investigate the status of the Clark Crow. Found 7 birds which would indicate that the area was used either as a nesting slope or feeding grounds. Associated with these birds were 2 townsend

solitaire, 1 flicker, Utah jays on south side of canyon. 410331-34
Covered quite completely the north exposure of Slide but fail to find any signs of crow aggressiveness which would indicate their territorial zones. Inspected nesting tree of Clark Crow of 3-20-41 but found no further signs of it being used. From the evidence presented one can judge for himself if it is not possible that the pair of these bird which deserted this nest, had not crossed the canyon and abeying to the urge of the nesting cycle, completed their home on the north exposure of the maple Flat Mountain. The remaining portion of the day was to be used to unmesh gate this nest which was noted 3-24-41 to be under construction. Up until now it had not been disturbed by us. Crossed Canyon and gained the nest site. The following actions observed upon approach to this nest. No action or response of either bird on approach. Slowly moved upon the snow surface to within 10' of nest. It remained motionless and watched me as I tried to orient for a picture, the shot of which is recorded (1-3-31-41). after watching it for about 5 minutes I attempted to flush it with the least amount of disturbance of the eggs which I hoped were present. At about 5' or less it left and lit in the top of a dead conifer and remained perfectly docile and quiet for a few minutes and then flew 30' further beyond. Realizing how easily it was to cause desertion of their home, made a rapid inspection and then withdrew and made rapid descent to Slide Canyon below. As I left it uttered a few calls but did not attempt to return to nest or follow me. It complete lack of the aggressive attitude startled me and it caused me to wondered about the consistency of their actions. Are they noisy & aggressive around their territory, or are they note?. Observed also that there was no mate near nest, at least it did not make its appearance. A Eutamias dorsalis utahensis some 400' below nest. A red tail circled on top of Y mt and an eagle soared south from Y mt. The nest was placed in Abies concolor about 7' high from surface of snow. Tree small but bordered by large conifers of Abies concolor and Pseudotsuga taxifolia. Exposure completely covered with snow. Nest on south side of tree. Bird facing west. Nest visible

1-3-31-41

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410401-35

for some distance if conscious of its general location. Held 1 egg. On return trip found 3 deer and magpie associated. Plan to return later for nest and eggs and photography.

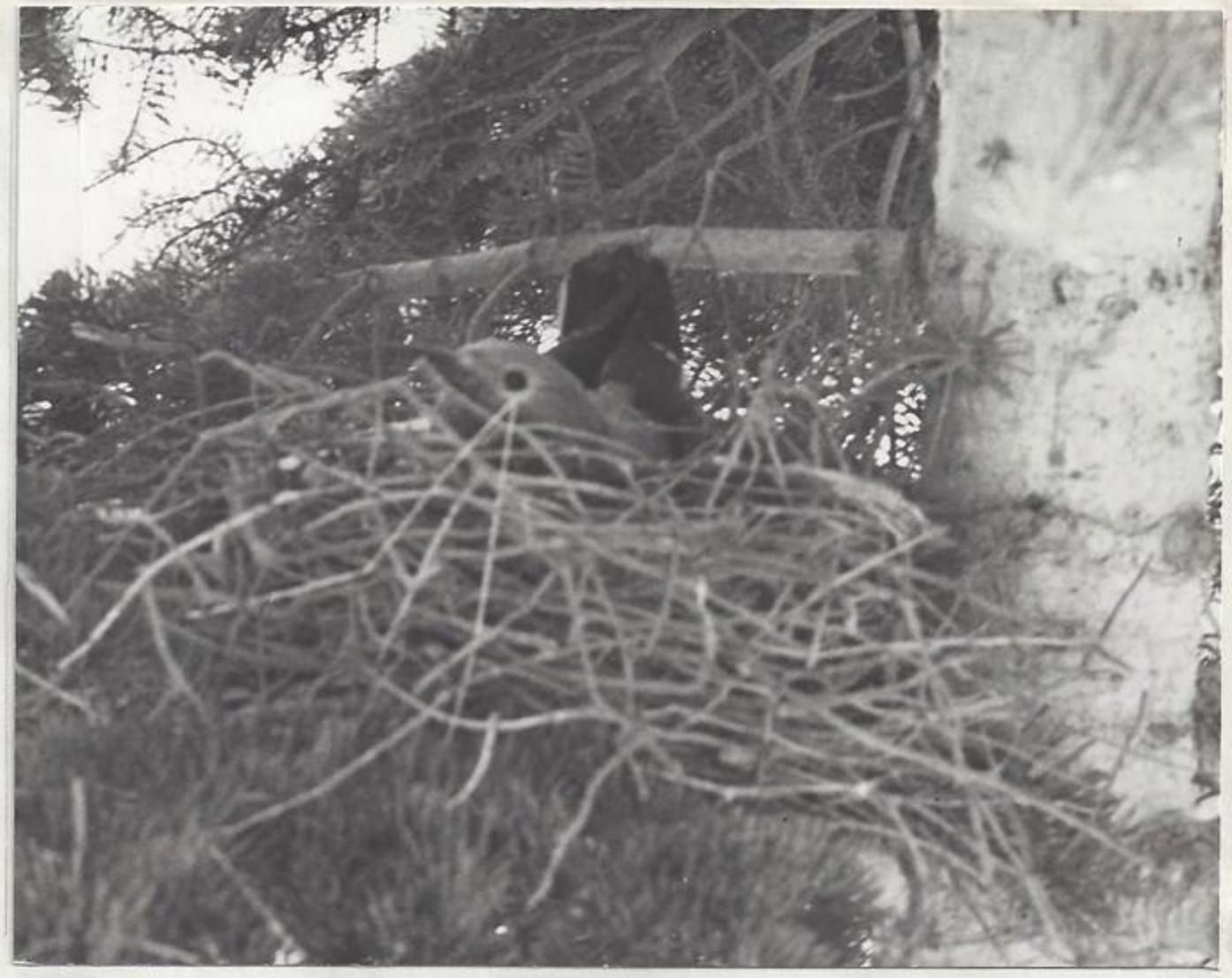
4/1/41

Rained last night and this morning in Provo, snowing down to base of mountains. Clark Crow must have had a bad night of it. Temperature at 9:00 P.M last night at home = 58°F

4/4/41

Top Y mt. Left Bonneville level at base of Y. trail at 12:43. 11 Juncos Canyon, 12:47 fresh deer tracks in trail 12:52 P.M 2 magpie one long spurred Towhee singing. 1:10 2 falcon soaring on top Y mt. 1220 Quail in oak. 1:22 Woodhouse Jay. 1:25 Base of Y woodhouse Jay and Juncos. 1:28 2 Long Spurred Towhee together 1:30 Thicher call with single note. Woodhouse Jay. 1:45 Eagle Gate. 147 Canyon wren calling from south side of Slide. 1:49 2 L. spurred Towhee together among oak & Juniper. Eagle sailed north and circled around top of Y mt several times. Thicher called 2:15 P.M Snow and hail. Spurred Towhee. 2:23 at first Clark Crow nest and continuing up mountain slope to N. E point where one can see Conifer on east top on east side of canyon leading to top of Y mt from slide canyon. Utah Jay, Townsend Solitaire, Dusky Grouse near crow nest. Heard croaking noise of Clark Crow. Eagle and red tail soaring on top. Deer tracks in snow thoroughly covering ground. Thicher Calling for 10 minutes, 2:55 P.M. Examined several nests in Juniper, mahogany that could be either Clark Crow or Utah Jay. This slope is characterized by the mahogany-Juniper trees. Thichers calling in same general areas as of last trips. Examined one nest 5' high in mahogany, protected from above and on north side of trunk. These nests are generally in a tree of a group of compactly placed trees. Arrived at point at 4:00 P.M. Coyotes tracks present. 4:15 Dusky Grouse drummed twice about 2 minutes apart during a slight snow storm. Remained at this point for 1/2 hour but did not see any Clark Crow activity beyond. Left 4:30 P.M. Examined 2 more large crow like nests on return. The special observation of the day occurred during a few minutes of rain when a Clark Crow was observed to be flying south from the top of Y mt and trending directly south towards nest on south side of slide. All of a sudden it dropped out of the sky and fell directly to the nest area in a speed which I felt would never be checked without striking the ground. This few minutes of rain probably did not have anything to do with its return as it had been snowing ~~sp~~asmodically since 4:30. Other than this incidently observed no activity on the south side of slide in crow territory. Arrived at base of Mt 6:30 P.M. Home at 7:00

410407-36



3-4-7-41 nest and bird (nucifraga columbiana) nest in abies concolor.

4-4-7-41 Ibid. Note fringe of snow on peripheral edge of nest. Constituents of nest construction distinctly enough represented to identify.

410407-37

5-4-7-41 Same as preceding but taken under shaded light conditions.

1-4-7-41

Dad and Red Biddulph made trip to Clark Crow nest discovered 3-24-41 and collected nest and eggs. (See dads notes of this date for his report.) Red took several color and black and white pictures. no 3-4-5-4-7-41 At home I took no 1-4-7-41 and 2-4-7-41. Nest and eggs now in our oological collection

2-4-7-41

4/12/41 410412-38

mouth Provo River, Utah Co. While stationed at the mouth of this river recorded the following birds as they passed by:

| | 5:40 | 5:45 | 5:50 | 5:55 |
|---|---|---|---|---|
| Larus californicus | 2 | 2 | 4 | |
| Pelicanus erythrorhynchos | 5 | 3 | 7 | 2 |
| Swallows | 32 ← Samples only → 47 | | | |
| Ducks | 2 | 2 | 9 | |
| Ardea herodias treganzi | | | 1 | |
| Mergus merganser serrator | | 3 | | |

4/15/41

Little Rock Canyon, Springville. Left 2:00 P.M. and arrived at highest observation point at 3:30 Remained here until 6:00 P.M This observation point is gained on south side of canyon. On route up counted 6 deer. To canyon south counted 7 deer. From the north slope of little rock canyon on its entire length counted 36 deer. in groups of 1-2-3-4-5-6-7 and generally distributed below the mahogany line. Deer become active about 5:30 P.M. During this period some fed and others stopped and rested. The few observations made were: Marmota flaventris moxphora in cliffs on highest point of ridge, Raven and its nest on cliffs on south side of canyon, Falcon, 3 redtails present. Dusky grouse called frequently. 2 swifts passed and 10 minutes later 10 arrived, Utah Jay, Canyon wren, Pheasant, quail, Flicker present. Rock structure a typical overturn. While my main intentions were for observing the clark Crow found no evidence of them. However I am sure that they use this most favorable spot on the south end of Buckley mountain.

4/19/41

Drove to Lincoln Beach at south end of Utah Lake. 2 avocets in warm water bay, 8 Pelicans rested to the west at 2:30 P.M they left and circled upward. Pelicans and Cormorant flights east and west. Gulls (California) swallows, Killdeer, Merganser (red breasted) and ducks present. Spoonbill and mate in pools of upper Pagson River about 2 miles from Lake. Carp jumped regularly from bay. no gulls active in air on Rock Islands except an occasional one.

410420-39

4/20/41

ascent of Buckley mountain via Slate Canyon and last ascent. Red Beddulph & I made this winter skiing trip. Left mouth of Slate Canyon at 7:30 A.M via grade trail on south slope. Arrived at top at 4:00 P.M. Left Top 4:20 P.M and at 6:30 P.M at mouth Slate Canyon again. At mouth of canyon as we advanced up south slope jumped 5 deer at base of limestone cliffs. 16 on north side. Coyote tracks from point on trail where it again joins canyon to the forks. Deer found to about forks of upper slate. At the second snow slide area in Slate noticed a congregation of ~~Gray~~ Ruffed Grouse tracks among the aspen found here. First occurrance of aspen in canyon. On our return found 15 birds in this same area. 2 Eutamias at forks. Utah Jays at forks and Tomiasciurus calling as we advanced toward upper my valley near divide of Right hand fork of Slate. Snow over 6½ feet at valley. Rabbit tracks covered with new snow covering. no signs of spring at lake but completely covered with winter mantle of snow. At divide of Slate and Little Rock Canyon found the temperature in shade 40° F. Not many tracks in snow at divide. Continued to top and found a new world of snow covered trees but as usual only one or two films left in camera. and lights fading. No. (1-4.20-41) and (2-4-20-41) taken at divide before final ascent. Red takes a try at a cornice with Provo Peak ridge in background. It was on this ridge we skied a few weeks ago. The other is of area with Timp in background. Winter still prevales in this valley with threatening storms ahead.

1-4-20-41

2-4-20-41

410420-40

5-4-20-41

3-4-20-41

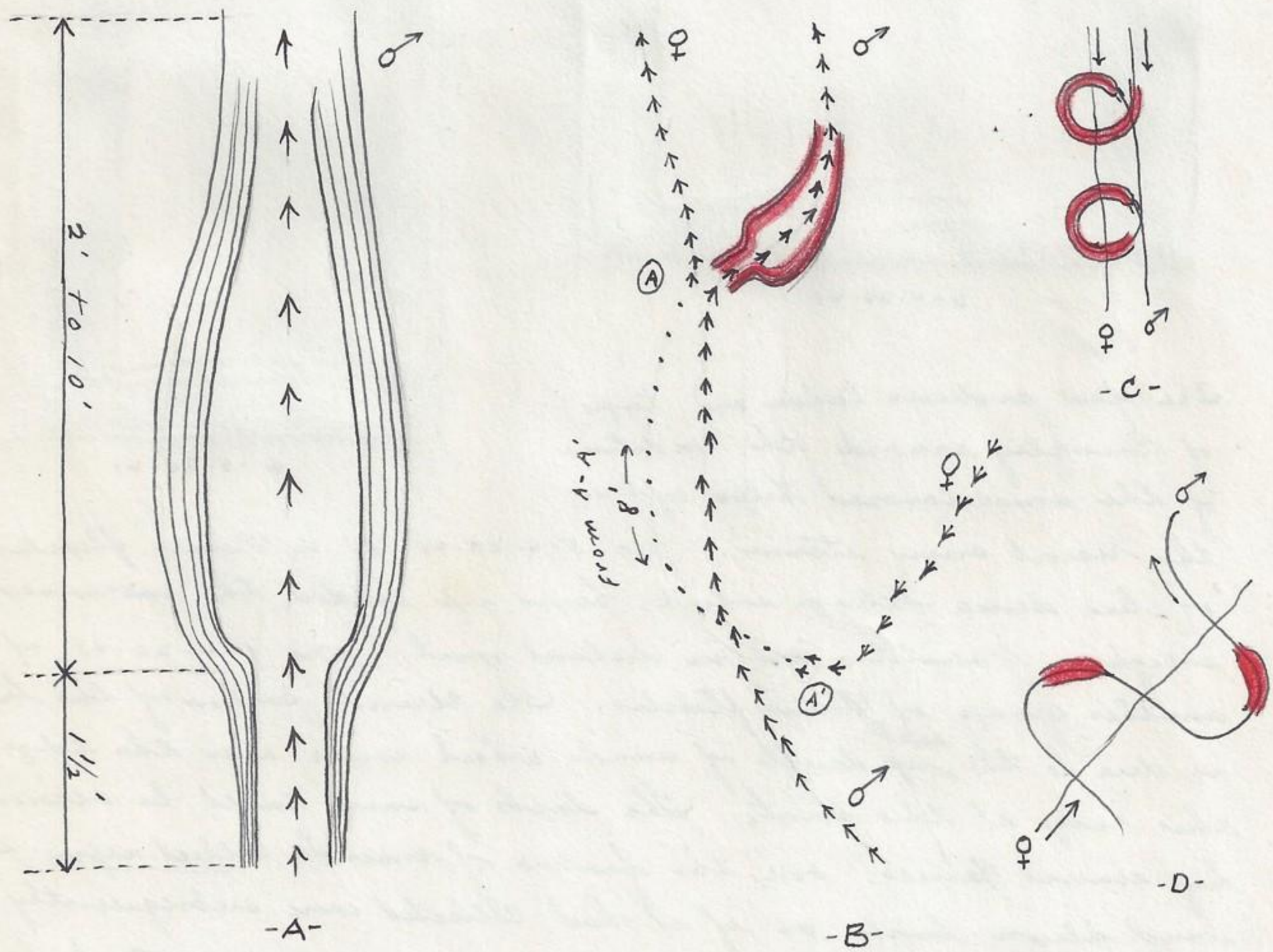
6-4-20-41

4-4-20-41

The few pictures taken on top of Buckley record the condition of the snow covered trees after the recent snow storm. no 5-4-20-41 of a Pinus flexilis of less dense foliage which bears up under the increased weigh. Mapleton mt in distant mist. no 6-4-20-41 of another group of Pinus flexilis. The cleared portion of the tree is due to the east up drafts of winds which issue over the edge of this ridge at this point. The lack of snow could be accountable by several causes. one the failure of snow to collect upon the wind blown limbs or if it had collected were subsequently jarred loose by wind movement. no. 3-4-20-41 Reed gliding thru a fairyland mountain top. these trees are observed from utah valley below and are luring to say the least. Now we were actually among them. no. 4-4-20-41 of Abies concolor in same area. Mapleton Mt in background. As it was snowing at the time the mountain appears as if hidden from its bold nature by winters crystal veil. Evening lights nearly gone now.

410420-41

The most interesting observation was made in my valley below divide among the aspen and conifers. As the surface of the snow was powered upon a hard crust one was able to recieving an interesting story of the courtship act of the Dusky Grouse. From all evidence available pronounced these tracks as Dusky although the Gray-ruffed Grouse could have been involved. While there may be a question an almost completely satisfied that the designer was a dusky. These eloquent patterns prathayed an act that would have been rather difficult to have observed in nature under summer conditions. But here one finds the story in black and white, more properly white. Found mainly among aspen stands.




Key:
- grouse tracks
- primary impression of courtship strut
- flight course

Figure a of the primary feather imprints in snow in characteristic pattern.

Figure B courtship with ♀ flying 8' upon being too closely approached

Figure C and D courtship patterns of 2 main types.

4/21/41

Top Buckley Mt, Utah Co., for the purpose of recording the ghost trees on top and to check upon the crow situation on the south exposure of Buckley. Left mouth of Little Rock at 8:5 A.M, 2 cottontail in hackberry. Followed up north ridge but varied course at base of mountain. Upper course required snow shoes. As has been the policy and requirement of previous trips have always taken along either snow shoes or skies. Snow shoes are easier to carry during preliminary climb to snow level. Being alone I feel the snow shoes are also much safer but not as desirable for maneuverability. At 9:10 A.M heard G.H. Owl and 3 deer 9:15 a magpie and Turkey Vulture flying to the south the Turkey Vulture inspecting the cliffs on the south side of the canyon. Prairie Falcon calling above. Canyon Wren nervous. Several cliff nest, one of which appears to be an eagle located in perpendicular exposures. The shearness of south wall interesting, as if having slipped only a short period of time ago. Aggregation of Utah Jay, Woodhouse Jay and L.S. Towhee. The two large nests near mouth of canyon appear like eagle to me. Watched 4 vultures and 2 raven fighting in Canyon. Used snow shoes on upper limits. Deer tracks from base to near top. Observed one set of deer tracks crossing a treacherous stretch which I would not particularly care to cross At 12:00 observed Clark Crows and eagle. Arrived at top at 1:30 P.M and after spending the afternoon scaning this sky flat left at 4:15 P.M and returned as of the ascent but throughly checking juniper, conifer and mohogany stands for the clark Crow. No success but realized how fortunate we were in locating clark Crow nest in Slide Canyon. While on top recorded several pictures. A Tamiasciurus hole on top. Pheomyscus tracks common. Dusky drumming in Kalob Canyon Valley. Snowshoe rabbit tracks very common ~~to~~ on top also. From top found 80% of Mud Lake burnt over. Arrived just in time to procure pictures before the sun had interfered too much with the melting of snows from the tree branches, however the more delicate features had been obliterated as is evidence in comparison with the pictures of previous trip of yesterday.

410421-43

1-4-21-41

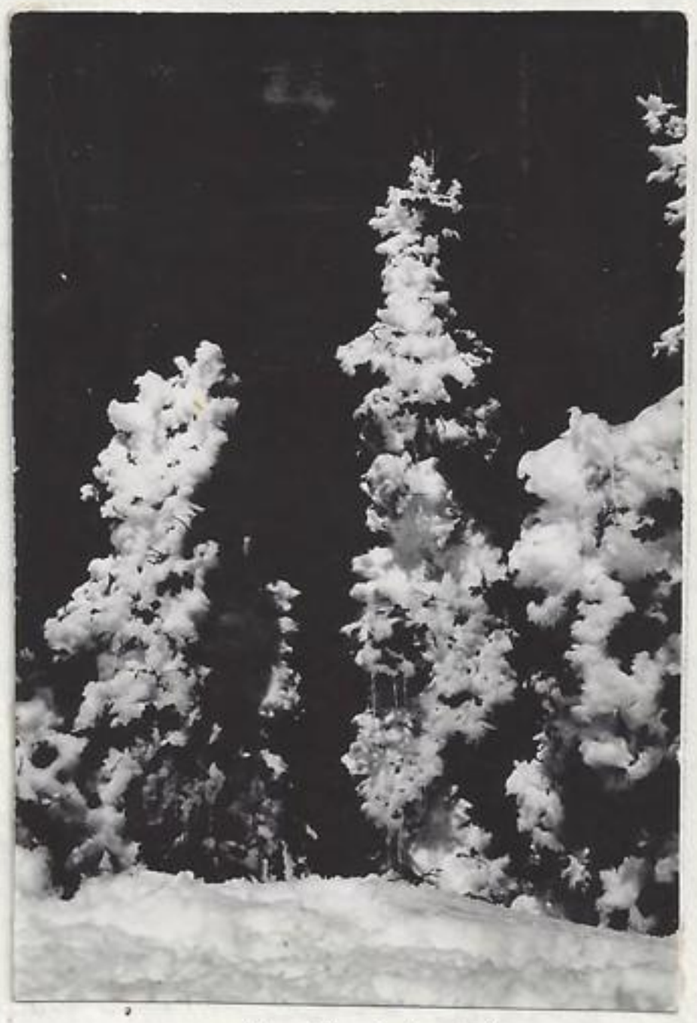
During the lower course of the ascent found many settings for pictures of the Hobble Creek area. This setting has possibilities for many nice shots as it produces a subject of interest to begin with. Mahogany border.

2-4-21-41

Sun rise of ghost trees. This geometrical arrangement must have some explanation as to its cause. Compare with shot taken yesterday. Filter should never have been used with this combination of high altitude & white trees. Note how, in many cases, the trees have suffered to the extent of killing the upper terminal of growth. This is the beginning of a subsequent dwarfed and squatty repose.

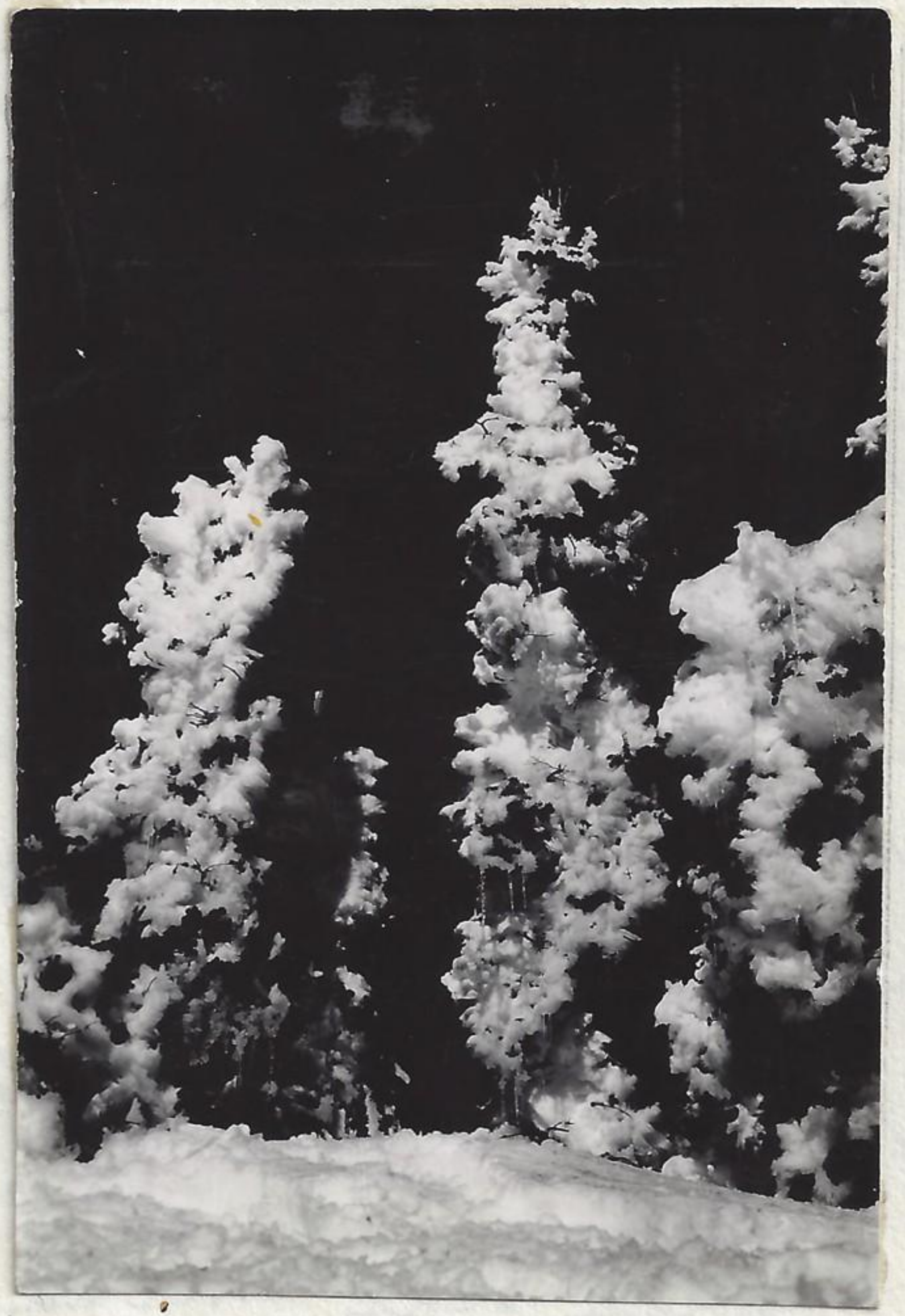
3-4-21-41

To walk among these trees is comparable to wandering among the forest of fairyland Most of these trees have suffered from the effects of the westerly winds.



4-4-21-41

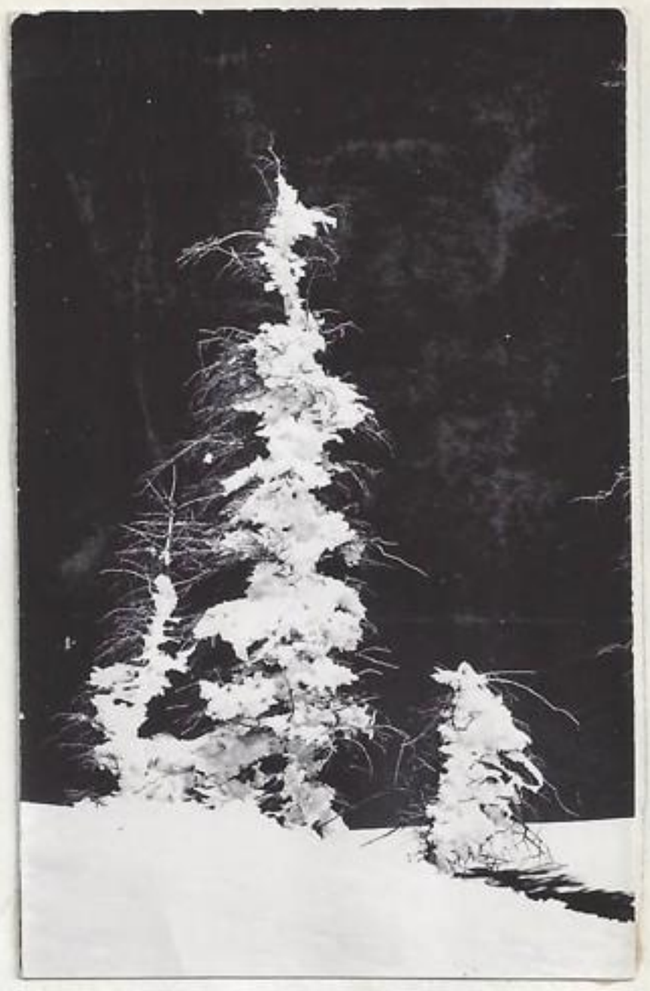
Another general shot of snow mantled conifer trees. Mainly Douglas fir, Limber pine & abies concolor.



410421-44

5-4-21-41

Wherever wind finds an obstruction it plays upon it with unremittent force creating the hollowed effect as produced at base of this tree.



6-4-21-41

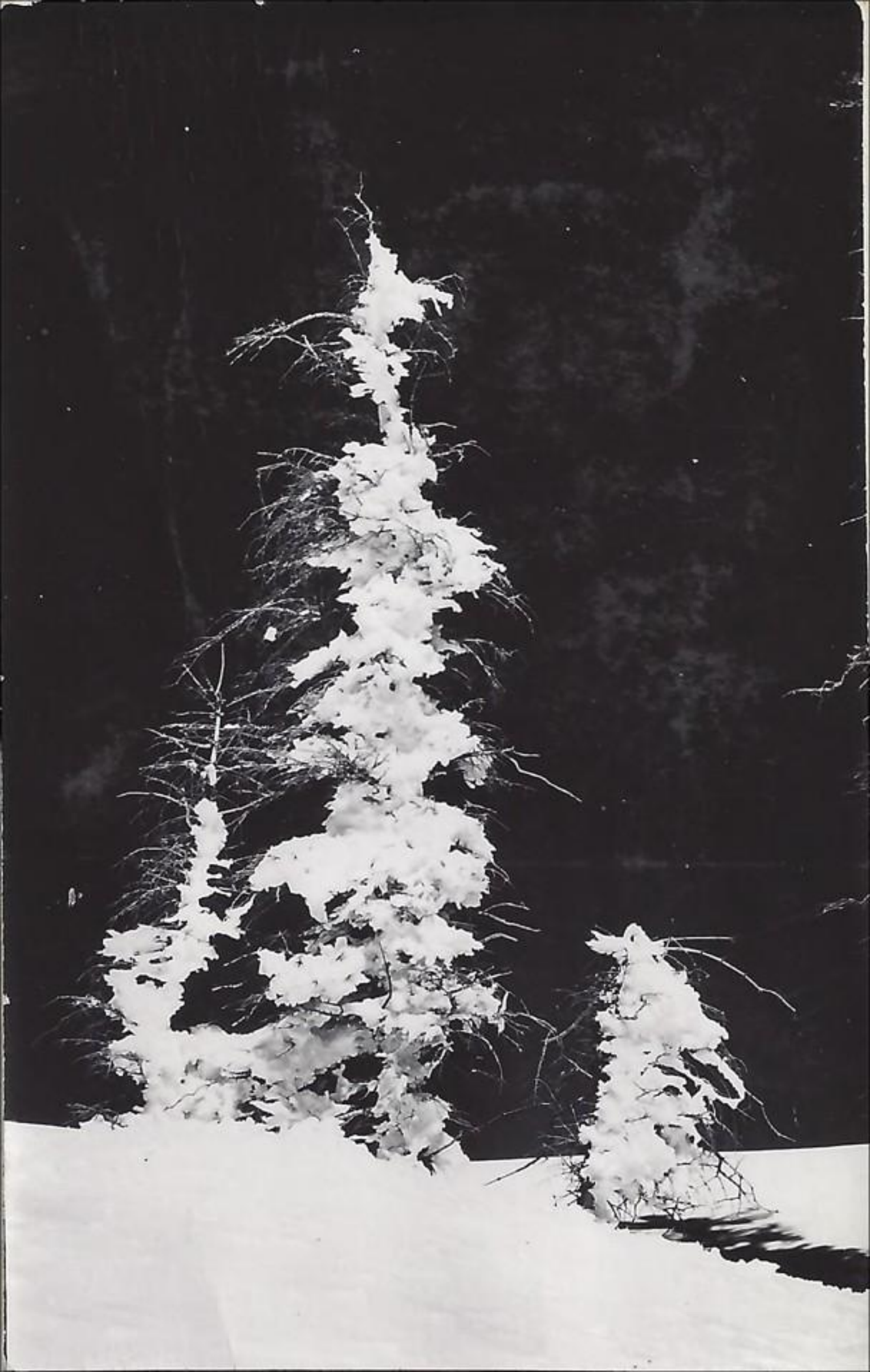
The dead trees come to life again in an ermine coat of snow. To me they are just as impressive as the living suffering trees.

7-4-21-41

A design incorporated with the tree group. Why one member should be perfectly straight while its near afinity partaking of the cripple repose is a problem of interest. Certainly they all experience the same degree of exposure to elements and other natural forces.

8-4-21-41

Superb beauty and delicacy combine with one of nature most forceful and commanding elements wind. Streamlining to the last degree.



410421-45

9-4-21-41
(see page 45.1 for enlargement)
One would not have to imagine too much to picture the above as a moonlight scene. Note rabbit tracks leading up snow accumulation at base of tree. This picture on west side of the top of mountain where the trees are exposed to the direct action of the valley winds.

11-4-21-41
(see page 45.2 for enlargement)
From top of Buckley Mountain with Maple Flat Mountain to left, Cascade to right and Timpanogos in background. Note difference in extent of conifer growth on front exposure of Mapleflat mountain and its adjacent neighbor directly in back of it. Sleeping princess evident on Timpanogos. Certainly a more interesting section of all the world could not compare with the above.

10-4-21-41
Cold to say the least but warm enough to form icicles.

12-4-21-41
Except for this one porcupine which more than forced itself into the picture, found a startling scarcity of these animals. This one had travelled great distances in crossing these mountain top flats from one tree to another.

410421-45.1

8-4-21-41 JWB

Figure 1 Wasatch Range

410421-45.2

11-4-21-41 JWB

410421-46

13-4-21-41

whether old or young, dead or alive, they still produce an eloquent picture. How this tree managed to attain this size before it succumbed is interesting to me and why the young ones about its base have failed to mature, or fallow the foot prints of their elder.

(For 4-23-41 see note following 4/23/41)

14-4-21-41

Mopelton Mt is always an interesting mt to photograph.

15-4-21-41

a monarch of the sky-meadow.

5-1-41.

To Rock Island in Utah Lake with Dr. Beck. Recorded a few of the usual calls and actions of the gulls. While ♂ remains at edge of nest gives sharp call with bill and neck to ground for from 5 - to 15 seconds. The laughing call is given by elevating head high and with bill gaping offers 11 calls per 3 seconds. When one intrudes into nest area the call is given 1 per second. They also have a 2 note chuckling. The breeding action is carried on with ♀ head low and jerks at partially reclining ♀. They may both participate in jerking the neck and head. Frequently this is followed by copulation. The calls issued at this time are 4 per second or equal the rhythm of the wing

beat which is given when in copulation. Have observed that the incubating female will throw head up to start the regurgitating act of the ♂ approaching. The breeding and copulating call is head as a very diagnostic call with no other call like it

5-3-41

Trip to Tickville, north end Cedar Valley, Utah Co., Utah. List of species observed in immediate vicinity. Inspected juniper flats and hills to west and a few miles up canyon.

2 Raven
2 Lark sparrow fighting
1 Cooper hawk
2 blue-birds
1 Rock Squirrel
1 hummer
1 Rock wren

Pinyon nest with mouse (Peromyscus?) nest placed 7' on south side. Gully floor. Examined Pinyon jay nest 5' on south east side of tree. The Woodhouse jay nest is more compact, otherwise the same.

Examined Pinyon jay nest 6½' on west side of juniper tree. All of these jay nests in juniper trees.

2 L. Colored Bush-tit.

Pinyon jay nest 4' high on S. W side of tree. Tree proper nine feet high.

Hummer pass but did not call.

2 L. Colored Bush tit.

Woodhouse jay nest 4' from ground on west side of tree. Tree proper 11' high.

4 Lead Colored Bushtits called.

Hummer passed but did not call.

2 Virginia warblers (?) with Bushtits.

L. spurred Towhee. No leaves on oaks, some however just starting to leave.

Butterflies active. Sego nearly out. Wallflower out. Service Berry just leaving. Artemisia interspersed among junipers. Red Indian Paint flowering beautifully.

L. Spurred Towhee calling and singing

Woodhouse jay calling.

Hummingbird passed.
Bushtit group
Woodhouse Jay

Approximately 200 Pinyon Jay nests in canyon to south. While one might find these nests in any situation they are more generally found in canyon floor or immediate side slopes.

Group Bush tit passed by.

Found a porcupine among Junipers. It left and ran down hill to oak patch and climbed an oak tree for safety. The mammal had picked out what appeared to me to be an unusual pinyon tree being slightly different from the regular juniper trees.

L. C. Bushtits passed.

Group of 2 and 4 Bushtits. One called like a Cetellus or horned lark.

L. S. Towhee feeding among leaves.

Observed one Bushtit on ground feeding among oak leaves, others fed in juniper trees. Their movement across a juniper flat is interesting. They fly from one tree to another and instead of working around the peripheral edge of the tree they work thru the center and out the other side.

One Woodhouse Jay ascended to top of Juniper to inspect our presence and then returned to main body of tree again. Wind and low clouds on hills to east and north.

Fork spur and phlox out.

Mourning dove
2 Woodhouse Jay nests (?)
Woodhouse Jay calling -
Hummer passed.
no pack rat houses
4 bluebirds
2 pr. of doves

A sheep herder reports that the Sage hens are found on benches in winter and on higher ridges in spring.

Jack College, brother of Mrs. John Hutchings reports:

50 franklin gulls on Lehi farm.

Coyote and pups located just west of Tickville He blocked entrance but adult did not return. Hole under large rock. More snow in west Canyon this

year than normally. Golden eagle eating rabbit at Point of mountain near West Canyon. Sandhill Crane had difficult time alighting upon Jordan River.

At John Hulcking of Lehi on his 1.9 acre home plot recorded the following nests. 2 B.H. Grosbeaks nested and raised young in same apple tree at same time, the nest not being over 15' apart. 18 robin nests, 3 robin nests of young about 3 days old. Slate Colored Fox Sparrow nest under construction. 2 pine siskin and a robin in 2 adjoining conifer trees. Catbird and Song sparrow nesting only 11' apart. John also reports an osprey feeding upon fish at Pelican Point. Men at Mercur also report it. The wash from Tickville about 23' deep and 50' wide and made about 20 years ago by one flood. Jumpers conform to upper Bonneville level. Igneous rocks present. Sandhills pass thru in flocks of about 40. Large Juniper trees and stumps taken from 7 mile pass and general area. More bird life in Tickville area than west canyon.

5/7/41

Group of approx 10 Audubon Warblers feeding in cottonwood trees in Provo River bottoms at Provo.

5/8/41

Trip down Mill Race to Rock Island with Dr. D. Eldon Beck, starting from Bullock rat farm. Recorded the following birds enroute. Full day trip. The greater portion of the list acquired while in the old Provo Bay region where canal passes thru.

G Blue Heron
Brewster Egret
Bank Swallow
Spotted Sandpiper
Magpie
Ruddy Duck
Red-head duck
Mallard
Pintail
G W. Teal
Cinnamon Teal
Canada Goose
Forster Tern
Calif Gull
Mud Hen
W. Yellow throat
Yellow warbler
Brewer blackbird
Red-wing blackbird
Yellow head blackbird
W. Faced Glossy Ibis
Pelican

410508-50

Red Breasted Merganser
Marsh wren
Killdeer
N. Willet
Short Eared Owl
Marsh hawk
Black Cr. Nite Heron
Gadwall Duck
western Grebe
Humming Bird
Wilson Snipe
Pheasant
Savanna Sparrow
Shoveler duck
Cormorant
Meadow Lark
Mourning dove.
Black tern

Temperature of water in lake at 6:30 A.M = 14° C.
Recorded the following picture of the island. no (11-5-8-41) of nest of gulls with albino egg. (no. 12-5-8-41) of west bay of island with California Gulls in foreground and nesting gulls in background. Timpanogas in distant background. no. (13-5-8-42) of main nesting area of island.

11-5-8-41

13-5-8-41

12-5-8-41

.60 Caspian tern nesting. Of the eggs of the Gull examined found the largest being 2.85 ~~mm~~ of an inch and the smallest 2.35 inches. Made a collection of the more or less unusual in eggs, particularly of the more interesting albino sets.

410508-51.

Incubation of the eggs collected:

(1-5-8-41) Set of 3 Calif. Gull eggs. The albino egg with heavy reoccurrence of blood. The medium blotched egg of the set with reoccurrence of blood. The heavily blotched egg fresh.

(2-5-8-41) Set of 3 gull eggs. Medium blotched egg with heavy reoccurrence of blood. Heavy blotched egg reoccurrence of blood. White egg fresh.

(3-5-8-41) Set of 2 gull - Both eggs fresh.

(4-5-8-41) Set 2 gull. The irregular egg with heavy reoccurrence of blood. Normal egg fresh. Found another egg which was a near duplicate to the irregular egg of this nest some 10' away in a nest of 2 eggs. These two eggs were almost identical in appearance. This might indicate that the birds frequently lay in other neighbors nests. A polygamous male could not effect such an egg thru 2 ♀ as egg shell is not a factor effected by germ plasm transmission.

(5-5-8-41) Set of 3 gull with one Ring neck Pheasant. Reoccurrence of blood in gulls, also in pheasant egg. Pheasant eggs carried over by gulls from main land is most likely the answer. Approx 20 sets of gull ~~egg~~ supported pheasant eggs. Last year one nest held 2 pheasant eggs and 3 gull eggs.

(6-5-8-41) Set of 2 gull. Both with reoccurrence of blood. Largest egg 2:95 inches.

(7-5-8-41) Set 3 gull. The two normal with reoccurrence of blood. The runt with white of egg only and either a hard yolk or second egg inside.

(8-5-8-41) Set 2 gull eggs. The light and finely speckled one with skeletal bones. Difficult to remove from hole in egg. Normal egg with reoccurrence of blood.

(9-5-8-41) Set 2 gull both fresh

(10-5-8-41) Set 2 gull and 1 pheasant egg. Gull eggs with bones forming. Pheasant egg fresh.

5-9-41

meadowlark and G. T. Towhee in yard at 255 E. 1st So Provo, Utah. These birds were many miles from their normal natural range. They are only rarely observed in this section of Oly limits. The yellow warblers and waterings have been passing thru in great numbers.

5-9-41

June beetles prevalent this evening at windows at 8:30 P.M. at home. Temperature outside 68° F.

5/15/41

Solitary trip to top of "Y" mt east of Provo. Day of intermittent storm clouds. Left base of mountain at 10:50 A.M at Bonneville erosional level. Itinerary of usual ascents; regular graded trail to slide, hence up south exposure of Y mt to top. Numerous Sturnella neglecta singing in cultivated meadows and farmlands below. 1 pair of Lazuli Bunting singing. Eutamias dorsalis utahensis calling at base of trail. Swallowtail among the phlox and sweet peas. Sceloporus s. stansburiana present and active. Magpie calling. Lazuli singing in oaks. The listing of birds and animals are new individuals unless stated. Early carrot-like plant in seed. 5 white throated swift flew by at trail 11:15 A.M. At a point farest north on route to Y found the marmot, 2 rock wren calling and one warbler like call. Swifts and hawk (red-tail) flying high above cliffs. Magpie calling. Blacker patterned swallowtail. Pine siskin, warbler calling, Tritteleria. First L.S. Towhee singing at 11:25 A.M. Can hear 3 Lazuli singing in slide to south. Red tail hawk calling in cliffs. Prairie falcon calling. L.S. Towhee calling 100' south of Y. Arrived at base of "Y" letter at 11:33 A.M. Primrose out. Bumblebee. Gophers active. The singing towhee of above now scratching in oaks. Flicker calling to south. Hydrophyllum capitatum more numerous beyond Y. Warbler called. Hummer passed. Rock service berry in full bloom. Arrived at Eagle Pass at 11:55. Slight rain and cool. Utah Jay beginning to call at 12:00 P.M. Carrot like plants just beginning to flower at this point while those in lower

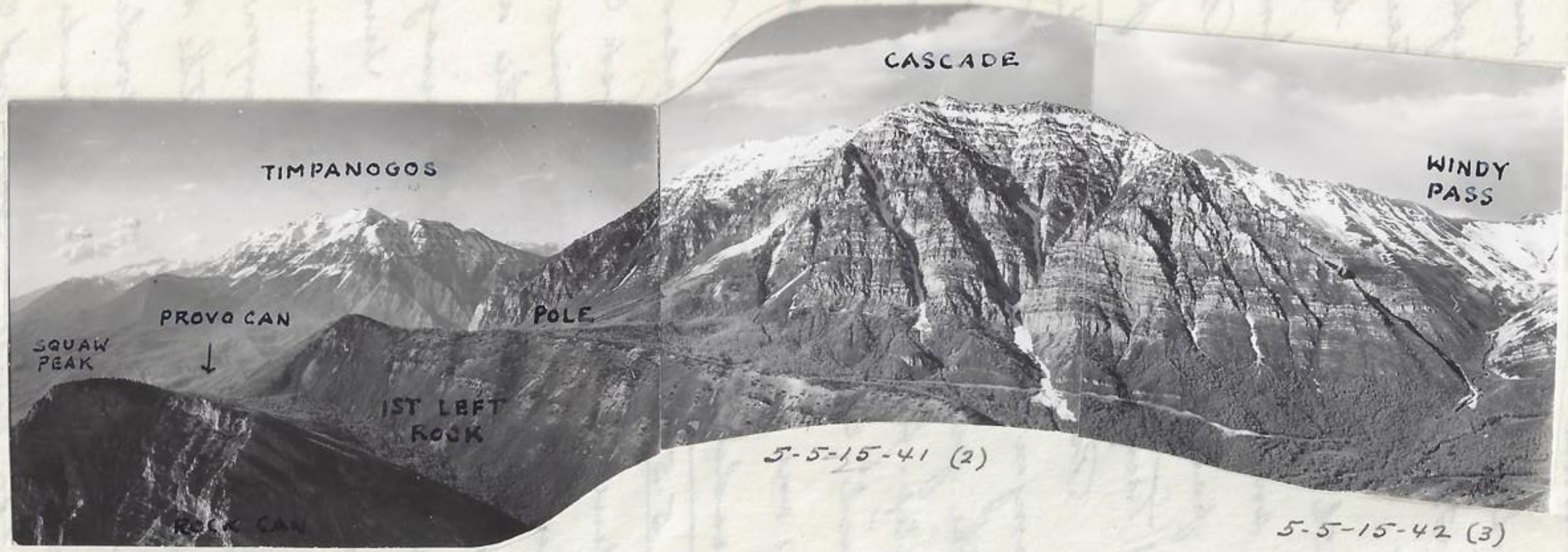
reaches were seeding. Utah Jay and flicker calling in same area as heard in previous trips in floor of slide just east of the first two prominent knolls. Jay calling like cat with occasional rumbling call. Flicker summer dreary call. Paused to record the nesting tree of the Clark Crow. (see previous notes relative to this nest. Tree approx 22' high with nest in upper mass of branches and placed on west exposure. Tree - Abies concolor. At 12:45 an Eagle flew north across slide canyon. Numerous Swift flying by. Warbler calling. Utah Jay remained in one area as I passed by. Warbler nervous and remaining in territorial limits. Sealophous on ridge Dusky grouse tracks in cordince Juncos concaps flew from base of

1-5-15-41

mahogany. It remained nearby. Poorwill left from among mahogany and juniper growth at close approach. Appeared much concerned. I flew 50' to wait until flushed again at which time it flew back toward point of initial position. Dusky flew from base of mahogany. Old Utah Jay nest 1-5-15-41 in mahogany - nest 6' high (from ground). 2 Juncos and 2 L.S. Towhee and 1 Green-tail Towhee feeding within 8' of each other without concern. This situation is frequently observed. 2 deer. tracks numbers as one ascends. They apparently use west exposure for bedding. Chipping Sparrow calling. Arrived at top of Y mountain proper at 2:00 P.M. Inspected top for about an hour and then gained north brink to inspect the eagle nest. At this point took picture no (2-5-15-41) showing the position of the nest. Young can be seen by close inspection of picture, being represented by a small white dot. The adult birds would invariable leave the nest and sail around cliff beyond. Condition of snow and advance of season indicated in this pictures as well as those to follow. One of the two young birds perform

410515-54

its toilet by backing out to outer periphery of nest and then by a quick movement and relaiming position for a moment released the tension and contents to the charm and winds below. A solitaire found haven as pictured below cliffs. No white throated swifts at the eagle cliffs but many below in Rock Canyon. From the top above the eagle cliffs recorded two shots to the south. Picture no. (3-5-15-41) of head of Slate Canyon and my valley with top of Maple Flat mountain to right and Provo Peak ridge to left. Slide canyon intercedes. Pictures no (4-5-15-41) with same background but new foreground of late spring snow bank. Also from top at eagle cliffs recorded a panoramic view of Provo Peak ridge, Cascades and Timpanogos. These pictures were taken at 5:30 P.M. Picture no (5-5-15-41 (1)) of Timpanogos. Rock canyon in foreground with Squaw Peak to left. The justification for calling the exposure a case of step-faulting is explained here but of course no such condition exists. The topographical expression one of differential erosion. no. (5-5-15-41 (1)) of Cascades with percepitous south and west chimneys. (no 5-5-15-41 (3)) of Cascades with windy pass in evidence. The upper Rock Canyon drainage is plainly discernible. One day someone will realize the mistake of putting a road into this area. no. (5-5-15-41 (4)) of upper Rock Canyon drainage. no (5-5-15-41 (5)) Provo Peak and slopes. First right hand fork of Rock Canyon in immediate foreground. no (5-5-15-41 (6)) to south with upper Slate Canyon in distance. Provo Peak ridge continues to the south. The piracy of 1st right hand fork of Rock is evident. These pictures are so recorded that they make one continuous panorama of the range. Sky and cloud formation will give one an idea of weather for today. Observed only 3 deer feeding on whole exposure of panorama at 5:20 P.M. 2 Vultures at 5:00 P.M. Solitaire singing




5-5-15-41 (1)

5-5-15-41 (2)

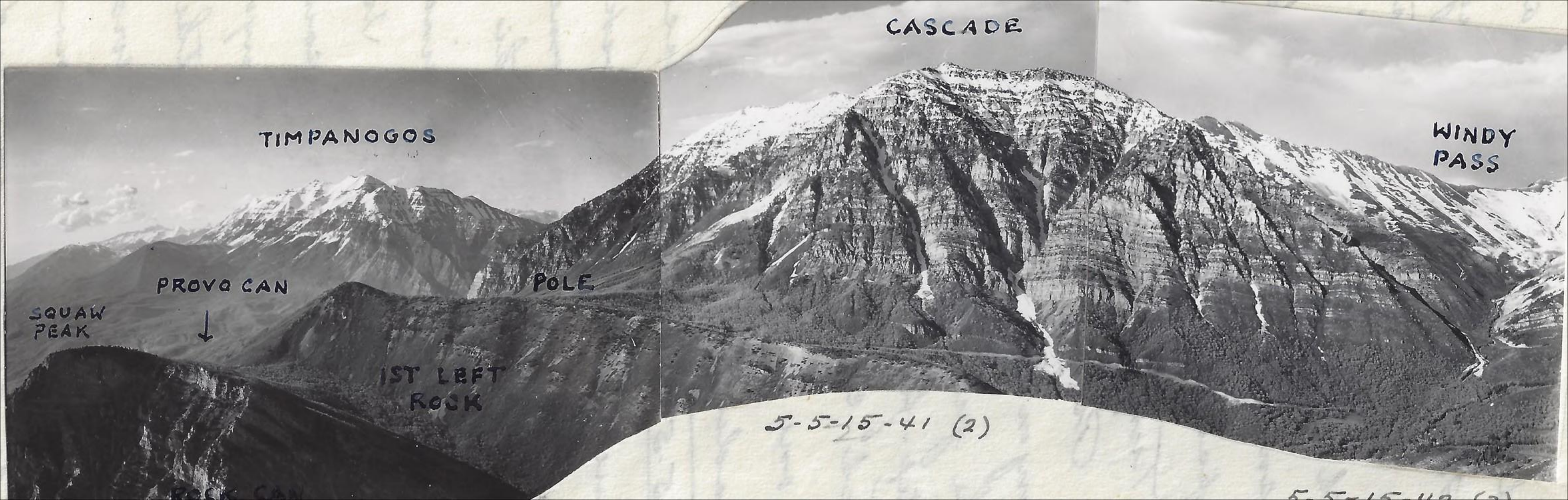
5-5-15-42 (3)


5-5-15-41 (4)

5-5-15-41 (5)

5-5-15-41 (6)

410515-55


CASCADE
TIMPANOGOS
WINDY PASS
PROVO CAN
POLE
SQUAW PEAK
1ST LEFT ROCK
5-5-15-41 (2)

5-5-15-41 (5)

4-5-15-41

2-5-15-41

3-5-15-41

With evening lights promised and still considerable terrain to traverse left to top at 6:00 A.m and made leisure descent down the S. E. ridge leading down into Slide Canyon. Cut-arnias at Eagle Cliffs among rocks. Left young eagles standing upon the edge of the nest. Dusky grouse drummed this afternoon in Rock Canyon. 2 deer left the top. In the main the soil is bare of vegetation but early spring flowers just pushing thru. Numerous Dusky dropping along ridge. 1 Dusky & 1 deer left. Heard Dusky wing below. Gophers throughly moving dirt (winter active, no new working since) Mt Chickadee and Utah Jay. Recent burnt Abies concolor. Dusky Grouse left oak, maple and chokecherry patch and flew 100' into fir tree where it remained. Another left 20' from where the first one flew up from and ducked down over the hill to some unknown destination. The one in tree kept thrusting its head up and down with head feathers ruffled. Junco chipping. A Dusky left and flew 300'. Another left 20' away and flew in opposite direction. At 6:20 Could hear a G. H. Owl calling below in Slide Canyon coming from the direction of the old Goshawk nest of previous experience. Dusky drumming and flicker calling. Dusky left from among mahoganys. Another Dusky left from a similar

mahogany growth. First active gopher. Dusky left from base of mahogany. Another Dusky left near and from the ground in open situation bordering mahogany. Still another left at 40' from 2 above. Arrive at Slide Canyon at point where it drops abruptly into 1st Land Rock Canyon at 6:35 P.M. A cooper hawk left. Dusky drumming. Tamiasciurus calling in fir trees up Slide. Flicker, Chickadee and Utah Jay here. Examined goshawk nest in aspen, not being occupied as yet. Catkins from aspens carpeting the snow to its near exclusion. At 6:45 P.M heard first grey ruffed grouse drumming. The main east west trending portion of Slide Canyon as follows: north side mainly free of snow, south side covered with snow. In Slide Canyon bottom where ground was free of snow found the gophers had completely plowed the ground. Grey-ruffed Grouse left base of aspen and piped while flying. Lone active gopher 300' above forks of canyon. the one leading up to top of Y. the other continuing up main Slide canyon. Chokecherry leafing thinly and coming out mainly at top of bushes. Solitaire sang to south. Arrived at Maple Flat turnoff at 6:55 P.M. Feel like lown as compared to the high dense weeds and vegetation that develops later in summer. Watched a porcupine eating Chokecherry bark. Black headed Grosbeak singing (?) 2 L. Spurred Towhee. Group 7 Virginia Warblers, W. Tanager, Heard several Towhees in Slide as well as several other unknown birds calls. 2 hummers. Arrived at Eagle Pass at 7:10 P.M. Black headed Grosbeak at Pass. Rock Wren calling. Red tail at nest on south side of Slide. Canyon Wren called. Sun down at about 7:30 P.M. House finch at base of trail. Pheasants and small group of quail to conclude the bird list. Sky clear now. An appendix of notes runs: Approx 80 Sulophous left trail from base of mountain on Bonneville level to Eagle Pass of this morning. They preferred the oak leaves and vegetation to the bare trail They were found in grass, artemesia,

410516-59

5-16-41

1- 5-16-41

Picture of Timpanogas taken from Carterville near Provo. of approximately this date. Would not be a bit surprise if it were taken about the 13th or 14th of this same month. Taken with 130 x Green yellow filter 1/5 x 8 setting. The date is approximate but feel it to be near the date of the 15th.

5-16-41

Overnite trip to Rock Island in Utah Lake. Dr. D. Eldon Beck, Sidney S. Bayle and myself in party. Main mass of information of the following day. This evening we organized, and made few observations and notes on island.

5-17-41 (Rock Is. cont.)

Recorded the following observations. Checked one egg, gull that had been piped. It took 40 minutes from the time it was piped to complete liberation from the shell fragments. Of the entire gull colony approximately 35 nests contained young just hatched. Birds still copulating. During the act of copulation the ♀ pecks the breast feathers of the ♂. Both preen feathers after copulation particularly the ♀. She is mainly concerned with the area around the front angle of the wing. Observed several ♂ attempting copulation while ♀ rested upon the nest. When one whistles at night the birds on the peripheral edge of the nesting colony ~~who~~ rise without calling but center birds start calling as soon as they rise. The flight stops at late twilight when lights are of such intensity that one can barely discern the bird in the air. One of the more unusual sights is to watch the groups of gull arrive at the island from the mainland at about daybreak. They come in small groups and as they approach the colony they disperse and fly to their respective nests. Their group departure effected without formal good byes. Males on nests after sundown. The Bufo woodhousii commences its long

410517-58

Rabbit brush, but mainly among the oak. From my observations of today feel that certain grouping of birds were found according to different zones and habitats. I also found that this grouping of birds would vary in the same habitat indicating that not only environment but ability to live with one another was an important ecological factor. Is environment the factor or is the innate nature of the animal responsible, a very important question to be answered some day. Are zone distribution of birds explained on a physiological basis alone and can the general distribution of animals and birds be accounted by environment and habitat alone. The itemized account of birds observed today is as follows.

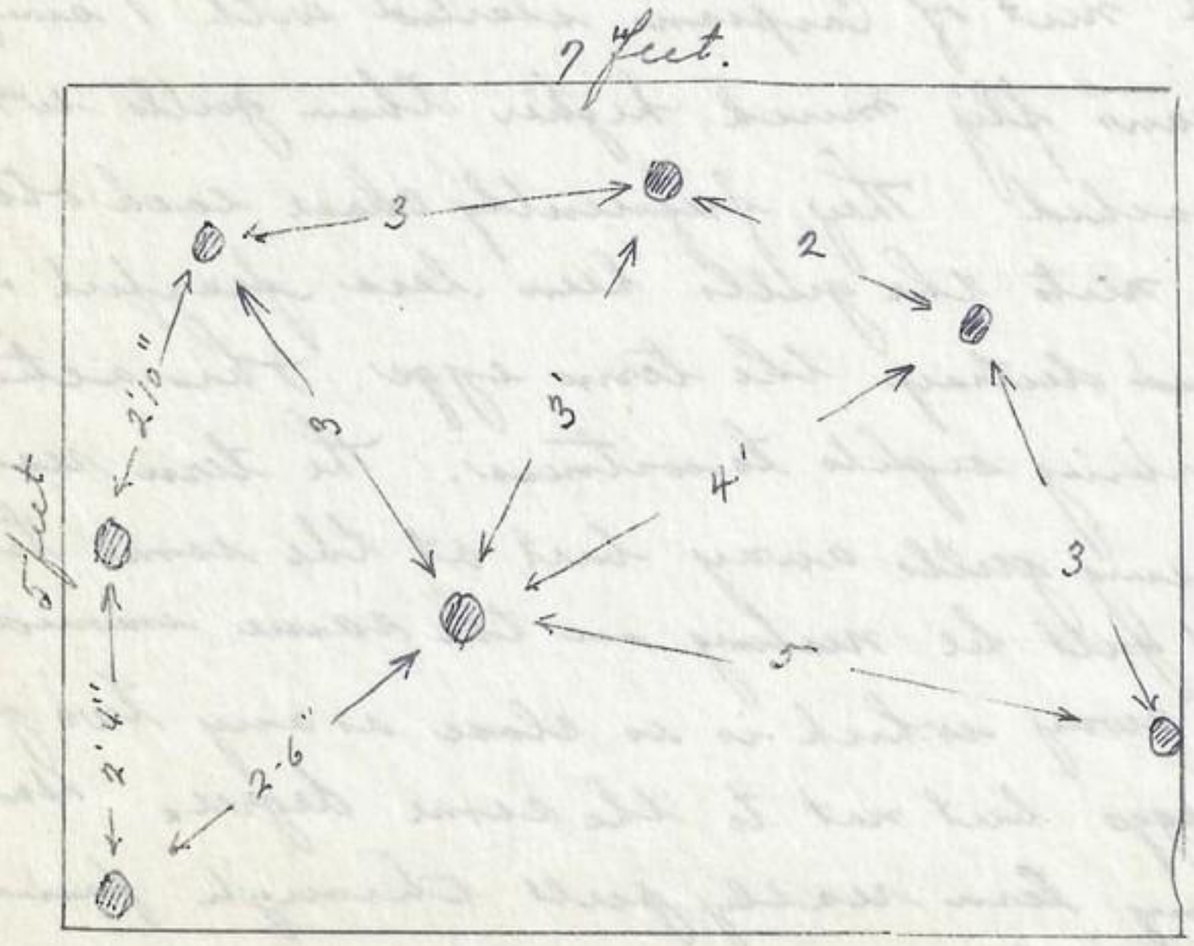
~~Sturnella~~ neglecta
Phasianus colchicus torquatus
Lophortyx californica
Pipilo maculatus montanus
Oberholseria chlaura
Junco concipe.
Falco sparverius sparverius
Aquila chrysaëtus canadensis
Phaloenaptilus nuttalli.
Buteo borealis calurus
Cathartes aura septentrionalis.
Accipiter cooperi
Vermivora virginae.
Cyanocitta stelleri.
Piranga ludoviciana.
Dendragapus obscurus obscurus.
Bonasa umbellus umbelloides
Hedymeles melanocephalus papago
Salpinctes obsoletus obsoletus.
Catherpes mexicanus
Aeronautes saxatalis.
Bubo virginianus montanus.
Spizella passerina arizonae
Myadestes townsendi
Penthestes atri. septentrio.
Passerina amoena
Pica hudsonicus
Spinus pinus pinus
Calaptes cafer collaris
Selasphorus p. platycerus (?)
Carpodacus m. frontalis.

410517-60

weird calls at about the same time the gulls cease their activity. Observed one Bufo woodhousii 8' from a gull nest and unmolested. Find an occasional wound gull with broken wing. would be interesting to know if they could have crossed from the mainly in such a condition or if they suffered this mishap upon the island. During the day one finds certain bad and notorious birds or possibly we might say gallant ones. Whenever ~~th~~ one steps into their territorial limits he suffers from either a head injury or at least is asked by the gull in no restricted terms to pick up his hat. I have suffered bleeding wound on the head as these birds power dive and strike the head with either their claw or bill. I haven't decided as yet just what they use when they strike but wouldn't be a bit surprised if they used both their bill and feet. Their dives are accompanied by a forced shrill. If one crouches low and then jump up suddenly just as the bird is about to strike he can be sure of catching it by the two front wings. They attached continually as long as you are near their territorial limits. Whenever one passes thru these areas they are on the job to greet you. Out of the entire colony there is probably 8 birds that have this tendency. The action doesn't seem to be in degrees but enjoyed by just a few birds. Would be interesting to see if this nervous status is correlated with other peculiarities of the gulls. In checking gull nests found the closest neighbor to be 22" inches. Measurement taken from center of each nest cup. Also found one Caspian tern nest placed 22" from a gull nest. Measurements taken same as above. Only 2 nest of Caspians started with 1 single egg in each nest. Caspians fly much higher than gulls when their nesting area is approached. They frequently chase each other. When the tern leave their nests the gulls been less fearful of mans presence, steps in and destroys the terns eggs. This action is one of the heart-disturbing sights to witness. The tern realize this and are always chasing gulls away but at the same time why would the tern and gull be nesting in the same immediate area being exact only 22" away which is as close as any two gulls. The gulls eat each others eggs but not to the same degree. Have often wondered how many tern really pull through from egg to adult. An unusual situation is the distance ahead

410517-61

the gulls rise frome the nests as one penetrates their colony. The main colony remains on their nest until 10-15 feet away but the gulls on peripheral edge of colony leave about 100' approach. When invading the main colony their is always a 3 or 4 second period when everything is quiet but after this momentary quiet period their is a general scolding and screaming period. When one walks very slowly they remain on nests until with. in 2 to 5 feet. There is numerous young immature gulls of last year but they just cannot find a place to land in main colony. Gulls fly overhead during hot part of day. Gulls approached our boat at 300' when we arrived yesterday. One nest of eggs placed under chrysothamnus bush under complete protection of the sun above. Observed one gull carry an egg for 3 feet. Many birds kick eggs out of nest when making escape. As soon as one passes by they are right back upon their nest as water closes in after a swimming moves thru the water. If they didn't return other gulls would rush in a destroy the eggs. Young stand in shade of standing bird particularly directly underneath. Many regurgitated piles of carp, chubs, angleworm, crickets etc. Female coaxes ♂ to regurgitate in order that she might partake. This is accomplished by up and down movements of the head. Plot made of one section to indicate a more or less abnormal congregation of nests. This is not typical but suggestive of many of the more crowded situations. However, the general picture is not to drastically different from this section. The measurements taken from the center of each nest. 7 nests in 35 sq feet or approx 5 sq feet per nest. Excellent housing arrangement.



410517-62

35 black Tern in one group. Collected the following eggs of the Calif Gull.

(1- 5-17-41) Set of 3 bluish white albino eggs. Eggs piped. Faint purplish ground color. Spots in two largest. These eggs were piped and could not save. They measured 2.52 length x 1.85 width
2.41 " x 1.75 "
2.52 " x 1.87
All measurements in hundredths of inches

(2. 5-17-41) Set of 3 eggs. albino.
Egg no 2-5-17-42 (a) = skeletal elements.
Egg no 2-5-17-42 (b) = feathers and good size bones
Egg no 2-5-17-42 (c) = total feathers about 3/4 developed.

(3- 5-17-41) Set 3 eggs.
White egg of set held embryo whose tarsus measured .33 inches
Brown egg (2.41) held embryo whose measured .72 inches from end of pubis to front of sacrum. From acetabulum to acetabulum = .33 inches. Tarsus .51 inches.

(4- 5-17-41) Set 3 eggs.
Egg measuring 2.75 inches in length held embryo whose tarsus measured .45 inches.
Egg measuring 2.73 inches in length held embryo with tarsus .55 inches. Length sacrum .85 inches. Upper bill .53

(5 - 5-17-41) Set of 2
Largest egg - reoccurrence of blood
Dark egg (normal) = fresh.

(6-5-17-41) Set of 2 eggs
Longest egg - Tarsus of embryo .34 inches
Smallest egg - Skeletal just starting.

(7-5-17-41) Set 2 eggs
Large egg = Skeletal elements
Small egg = reoccurrence of blood

(8-5-17-41) Set 2 eggs.
Reoccurrence of blood
Fresh.

410517-63

(9-5-17-41) Set gull eggs.
Small egg fresh. yolk just represented.
Others of set with skeletal elements.

(10-5-17-41) Set 3 gull
Skeletal elements in all 3 eggs.

(11-5-17-41) Set 3 eggs.
Normal egg — reoccurrence of blood
marked egg — Skeletal elements
Brown blots — Heavy.

(12-5-17-41) Set 3 gull
Widest egg — slight reoccurrence of blood
Other 2 absolutely fresh.

(13-5-17-41) Set 2 gull
Skeletal elements just starting.

(14-5-17-41) Set 3 gull
Smallest egg = Skeletal elements
Darkest egg = large bones
largest egg — natal feathers

(15-5-17-41) Set 3 gull.
measurement of embryo tarsi of respective eggs
.52 inches
.58 inches
.65 inches

(16-5-17-41) Set 3 eggs.
Lighest = reoccurrence blood
Longest — large skeletal elements. no feathers
other one = " " " " "

(17-5-17-41) Set 2 eggs
Runt fresh. not much yolk. other fresh.

(18-5-17-41)
Lighest — Skeletal elements
Medium — " "
Dark blotched — large skeletal.

(19-5-17-41) Set 2 gull.
When these eggs were opened 56 hours later from time of collecting found the embryos alive and gasping.

410517-64

On return from Island found a crippled Pelican. Among large group of → Pelicans. As it was unable to leave water we captured it. The main flock performed as due the gulls when a crippled bird is found among their presence. It was so unusual to see these weary birds disregard our presence when paying attention to this crippled by by sailing directly overhead. This was a new and interesting experience for me. No (20-5-17-41) is of a group of gulls in air on rock island. This particular shot was effected by holding a captured gull in the air. Such an act generally brings gulls from all reaches of the island to investigate. Their calling ceases when paying sympathy to their captured or crippled member of their tribe. No. (21-5-17-41) of a usual nesting bird showing neighbors etc.

22-5-17-41

20-5-17-41

21-5-17-41

5-19-41

Cold and windy yesterday. Snow down to the "Y" on mountain east of Provo.

5-21-41

Plumbeous Vireo at home working over the insects of the grape arbor. 255 E. 1st South Provo, Utah.

410522-65

5/22/41

Picture no. 1-5-22-42 of Mt. Timpanogos from Carterville, north of Provo. Bold Clouds. Taken with a 130x Green yellow filter. $\frac{1}{5}$ x 8 p.

5/23/41

1-5-22-41

Dr D. Eldon Beck, Reed Buddulph and myself made 2 day trip to Rock Island in Utah Lake. Recorded the following measurements during two days.

Larus californicus

| Length | Width | Length | Width |
|---|---|---|---|
| 2.92 | 1.75 | 2.56 | 1.67 |
| 2.58 | 1.68 | 2.65 | 180 |
| 2.54 | 1.75 | 2.53 | 178 |
| 2.45 | 1.77 | 2.60 | 1.75 |
| 2.45 | 1.87 | 2.55 | 1.85 |
| 2.55 | 1.80 | 2.70 | 1.85 |
| 2.72 | 1.87 | 2.45 | 1.78 |
| 2.60 | 1.85 | 2.50 | 1.74 |
| 2.68 | 1.65 | 2.42 | 1.82 |
| 2.62 | 1.75 | 2.32 | 1.65 |
| 2.73 | 1.66 | 2.40 | 1.70 |
| 2.70 | 1.75 | 2.85 | 1.64 |
| 2.71 | 1.75 | | |
| 260 | 1.70 | | |
| 280 | 1.65 | | |
| 265 | 1.77 | | |
| 262 | 180 | | |
| 2.70 | 1.66 | | |
| 265 | 1.90 | | |
| 2.76 | 184 | | |
| 2.66 | 1.85 | | |
| 2.65 | 182 | | |
| 280 | 1.80 | | |
| 2.70 | 1.75 | | |
| 283 | 172 | | |
| 2.74 | 1.71 | | |
| 2.90 | 1.72 | | |
| 265 | 1.85 | | |
| 264 | 1.88 | | |
| 264 | 1.79 | | |

measured length of one Pelican bill which measured 13 3/8 inches.

130 pelican at mouth of Spanish Fork River.

150 Ibis.

80 Western Crebe at Channel of Provo Bay Utah Lake.

Hydroprogne Caspia imperator

| Length | Width |
|---|---|
| 2.70 | 1.80 |
| 276 | 1.75 |
| 2.58 | 1.81 |
| 2.47 | 1.75 |
| 2.45 | 1.73 |
| 2.48 | 1.80 |
| 2.61 | 1.75 |
| 2.50 | 1.81 |
| 2.53 | 1.83 |
| 2.65 | 180 |
| 2.63 | 180 |
| 265 | 1.75 |
| 255 | 1.70 |
| 2.55 | 1.75 |

On return from the the channel found a Lark Bunting in pasture at Reay Property. First record of this bird for me.

During course of our investigations collected the following gull and tern eggs representing types

mother relates of seeing a Black Bear at the head of Grove Canyon on their trip to top of Timpanogos in 1911. Today record 2 misc items found in files of notes. The first of about 1933 and is concerned with the Turkey Vulture nest in Hobble Creek which is described elsewhere in these notes particularly 8-8-31 and occasioned on a trip to the nest to check on the state of the egg laying period. Incubation was far advanced: a solid body could be shaken within the shell. It was late evening when the nest was approached and the bird was rather loathe to leave the cliffs. After soaring out from the nest it circled back and forth near the cliffs. After arranging the egg so that no possible life could further develop we left the nesting site to find out later what the effect of this would be. In returning in a week neither egg nor birds were present. Pieces of egg shell however were found in the floor of the cave. The vultures might have deserted because of disturbance that evening or from unwillingness to enter cave so late in the evening because of human odor and sulphur fumes from matches used in illuminating cave. The neotoma probably got their feast

Another item refers to sick-malady on the reef in Utah Lake approx 1930. The following birds were recorded on this reef which was exposed at that time.

Aythya valisineria tzitzihoa 204
Anas platyrhynchos platyrhynchos 1
Nettion carolinense 179
Recurvirostra americana 31
Fulica americana 12
Spatula clypeata 8
Larus californicus 1

Otiyechus vociferous vociferous 7 410522-68
Nyroca americana 1

These birds represented only those form found on the reef proper. This afternoon (5/22/41) took a picture no 1-5-22-41 of Mt Timp with typical summer clouds setting at upper Edgewood near mouth of Provo Canyon Winter snows still remain even on the south exposure and swept ridges in evidence particularly ridges of the Cheops terminal.

1-5-22-41

5/24/41

Traverse Range Trip. Section between point of Mt and the Granite Range. Made ascent at 2 knoll east of the Indian Cave and rocky point. Gained upper reaches and then return. Left 4:00 P.M on flats below. Made following notes. Meadowlark, artemesia. Chet grass, soil very dry, lizards active and numerous, dormgrnedles, 2 lark sparrows, Citellus mollis, 4 Brewer sparrows, Song Sparrow (?), Mourning doves, 6 small sparrows singing in artemesia. 4:00 P.M Bonneville level. Jack rabbit left edge of oak stand, Lazuli, Crickets starting to call, Rock squirrel ran 150' to den under igneous boulders, white clay prospecting holes, now at red clay holes 4:20 P.M Chet grass only form of vegetation on knolls and ridges and like a lawn, lark sparrow, butterfly chased bird at it flew by, several Lazuli in canyon to east, L.S Towhee in Canyon to west, no erosion, 2 mourning doves, no lizards on grassy slopes, few rare rodent holes. 4:30 level ultra Bonneville line, rare ant hill, 2 Lazuli, 1 L.S. Towhee, magpie, few pheasants, Badger hole, can hear 1 L.S Towhee, and 1 Lazuli, few Sceloporus, lark sp, Chip Sp, Chickadee, meadowlark. 4:45 Collected set (1-5-24-41) of six chickadee in dead oak, hole 3' stump in oak patch, bird remained on eggs

410523-66

Collected following.

1-5-23-41 Set of 2 Caspian Tern. Fresh

2-5-23-41 Set of 2 Caspian Tern. Fresh

3-5-23-41 Set 2 Caspian Tern Fresh

4-5-23-41 Set 2 Caspian Tern. Fresh.

5-5-23-41 Set 2 Caspian Tern. Fresh One destroyed which measured 2.41 x 1.75 inches.

6-5-23-41 Set 2 Calif Gull. Small egg fresh. Large rounder one with reocurrence of blood.

7-5-23-41 Set 2 Calif Gulf. Skeleton formed.

8-5-23-41 " " " " fresh

9-5-23-41 " " " " The blotched one fresh normal egg heavy reocurrence of blood.

10-5-23-41 Single Gull egg from set of 2. Fresh.

11-5-23-41 Single egg from set - Fresh.

while enlarging hole. Mate arrived in 410524-69 few seconds, watched setter go into hole 200' away. Sp Towhee and hummer near. Artemesia, oak, chet grass, lark sp, sp(?), 5 L.S Towhee, 3 lazuli, 3 L.S. Towhee, 1 lazuli, magpie nest & 6 eggs bird left nest and did not call, in group oak with leaves drying up, Chokecherry underbrush, 4 old nest near or within 15' of new one and in progressive stage of deterioration.

5:14 P.M divide below chimney ledges directly north. Can hear to east in canyon 1 Chickadee, 3 L.S. Towhee, can hear to west from divide magpie, 2 L.S. Towhee. Great mass of oak dying 5:35 Cliffs, Neotoma, one cottontail ran 20' to rock crevasse, natural bridge land mark. L.S. Towhee increasing to east. Arrived top at 5:50 P.M. 12 L.S. Towhee to west divide. Head of U Canyon at 6:00 P.M. From here can hear. 12 L.S. Towhee and 4 other unidentified calls(?), hummer, 30 L.S. Towhee calls per minute on all sides. Porky work on oaks. 6:12 P.M Broad oak divide, 2 cottontail, dead porky, Towhees too numerous to count, marsh hawk (blue phase) Top 6:20 P.M. Left Top 7:00 P.M. Evergreen Camathus Woodhouse Jay, 41 L.S. Towhee calls (songs) per minute others giving warning calls. 50 L.S Towhee call per minute, back around 7:20 P.M. One individual issued 11 songs per minute. The 41 and 50 calls of above indicate songs and not necessarily different birds. Hummer more active in evening and after sun down. Nice view of Alpine mountains.

5/28/41

Two slabs of Provo Environs. (1-5-27-41) Tump and clouds 2-5-27-41 Utah Valley with Base of Timpanogas to right,

1-5-27-41

2-5-27-41

410527-70

5/27/41

Lincoln Beach, south end Utah Lake. Not many birds in evening. Many birds in morning. Gulls arrive about sunup. Birds present in morning were.

Pelicans
G. B. Heron
Cormorant
Mallet
B. Egret
Calif Gulls
Killdeer
Plover (sp?)
Forsters Tern
Caspian Tern

On return three Pairs pasture recorded
175 W. F. Glossy Ibis
Kingbirds
Bobolinks.

5/30/41

Vulture nest, Hobble Creek (see other notes for location) No birds seen, cave unoccupied, marmot and Neotoma tracks in cave, 4 superficial cups dug in floor, Neotoma dominant odor, Red tails hovering over ridge to east as of former visits. Neotoma nest at north end of cave, 2 years ago was at west side of cave. Hermit thrushes singing at 7:00 P.M, on Mapleton Mt. vegetation green 1/2 way up; also applies to vegetation of Wasatch Front Range.

5/31/41

Rock Island, Utah Lake. Left mouth Provo River at 6:25 A.M with Dr. D. Eldon Beck, arrived at island 7:25 A.M. Calif Gulls flew out 100' from shore to meet approaching boat, completely filling the air. Main flight to and from island is toward island from the N.W and to and from the island from the S. east. The main objective of this trip was to check upon the state of incubation and general progress of the nesting development. The general procedure was to innumerate all nests bisected by a 4' guide maneuved in definite sections of the island. The percent frequence of nest was not correlated with area. The sample survey revealed the following facts:

Survey of Nests. 410531-71

number as (4) etc, indicates one young bird of 4 days growth.
An 'O' is representative of an egg unhatched
An ⊕ indicates a piped egg

1. Census in established area of colony somewhat inward from the peripheral or edge of nesting colony.

2 - 3 - 4
2 - 2
2 - 4 - ⊕
2 - 3 - O
3 - 4 - O
3 - 3
2 - 3 - ⊕
4 - 4
6 - 4 - 4
1 - 2 - 2
4 - 4 - 1
4 - 4
4 - 4 - 3
8 - 5
4 - 3
2 - ⊕ - O
4 - O
3 - ⊕ - O
3 - 3
2
3 - 3 - 4
3 - 3
3 - 4 - 5
3 - 3 - O
3 - ⊕ - O
3 - 4 - 5
3 - 2 - O
3 - 2 - ⊕
⊕ - O - O
5 - 4 - 4
2 - 3 - 3
8 - 7 - 5
O
O
3 - 3
O - O
O
3
4 - 4 - 3
3 - 3
5 - 4 - 3
O
4 - 3 - O

5 - 4 - O
8 - 7 - 5
6 - 5 - 3
3
1 - O
1 - O - O
5 - 4
3 - O
5 - 4
3 - O
2 - ⊕ - O
3 - ⊕
2 - O - O
2 - 1 - O
2 - 2 - 3
O - O - O
3 - 2 - O
3 - ⊕ - O
4 - 3 - 2 ← plus 5 pheasant eggs
2 - ⊕ - O
4 - 3 - 3
O - O
4 - 3 - 2
4 - 3 - 2
9 - 9
4 - 4
4 - 3
2 - 3
2 - ⊕ - ⊕
O - O - O
4 - 3 - 2
⊕ - O
3 - 3 - O
O - 3
3 - 2
4 - 3 - 2
O
O - O
O - O - 2
3 - 2 - O
5 - 4
4 - 3 - ⊕
3 - 3 - O

⊕ - ⊕ - O
3 - 2
4 - 3
O
3
O - O
4 - 3
O - O
O
3 - 2
O
4 - 3 - O
O - O
O - O - O
3 - 2 - O
O - O
O
5 - 4
O
3 - 2 - ⊕
4 - 3 - 2
3 - 2
O - O
2 - 2
O - O
2 - 2
O
3 - 2 - 1
3 - 3 - O gull 11" long ←
O
3 - 3 - 2
2 - 2 - O
3 - 3
⊕
O
OOO
OO
3 - 2 - 2
6 - 5 - 3
1 - O
2 - O - O
3 - 2 - 1
3 - 3
O - O

⊕ - O - O
1 - 3
⊕ - 2
2 - 2 - O
O - 2 - 2
O - 2
1 - ⊕ - O
O
2 - 2
3 - 2 - 1
1 - ⊕
O
O - O
O - O
5 - 4 - 3
4 - 4
4 - 3
O - O
6 - 4 - 3
5 - 4 - 3
O - O - ⊕
3 - 1 - O
3 - 2 - 2
O - O - O
6 - 5 - 4
2 - ⊕ - O
3 - O
O - O
4 - 3
2 - 3
2 - 2
O - O
3 - 3 - 2
3 - 2
3 - 2 - O
3 - 2
4 - 3 - 2
3 - 2
1 - 2 - 3
O - O
O - O - O
O - O
3 - 3
4 - 3 - 2
3 - 3

410531-72

0-0
6-6
0
10-8-6
3-3
8-6
5-3
3-3-0
3-2-⊕
4-4-0
4-3
0
2-3-0
1-⊕
0-0
0-0-2
3-2-2
0-0
2-3-2
3-3-3
3-3
2-⊕-0
2-2-3
3-2
3-2
0
3-3
2-0-0
4-2-0
1-0
2-0
3-1-0
1-0-0
2-0-⊕
0-0-0
3-2
4-3-2
0-3
3-3
0-0-0
3-2
3-2-2
6-6-5
2-3-0
0
3-3-3
4-4-4
4-3-0
4-3-2
3-2

2-3-0
2-0-0
4-0
3-3-0
4-3-0
1-0-2
2-0-⊕
3-3-2
3-2-⊕
3-2-⊕
0-⊕-⊕
4-3
4-3-2
0-0
0-0
3-3
3-2-0
4-4-3
0-0
0-0-0
0-0
4-3
3-3-0
4-3-2
1-3-2
0
3-3-3
2-2
0-0
0-0
1-0-0
0-0-0
2-2-2
1-0
1-2
3-2-0
4-3-2
0-0
3-2-2-⊕
0-0
3-2-1-0
0-0-2

Census of peripheral edge of colony

0-0-0
0-0
0
0
0-0-0

0-0
0-0
0-0
0-0
0-0
2-⊕-0
0-0 →
0-0
0-0
2
0-0
0
0
⊕-0-0
0
⊕-0-0
0
0-0-0
0-0-0
0-0
0
0-0
0-0-0
0
0
1-0-0
0-0
0
0-0
0-0
0-0-0
0
0-0
0-0
0-0
0-0
1-0
0-0
0-2
0-0
1-2
0-0
0-0-0
0
0
0
0.0
0.0
0.0
0-0
0
0-0-0
0-2
0

0-0
0-0
0-0
0-0
0-0
0-0
0-0-0
3-2-0
0
0-0
0-0
0-0
0-0
0
0-0-0
2-1
1-0-0
0-0
0-0

Transect from outer edge of colony across colony to opposing edge.

0
0-0
0-0-0
2-2-⊕
0-0
0
1
3-3-3
0
3-2
0-0-0
2
0-0
0
0-0
0-2
0
0-0
3-2
3-2-1
2-2-3
5-4
8-6
3-3
0-0
1-2-⊕
2-3
3-2-⊕

410531-73

0-0-0
3-2-2
1-2-0
2
0-0
3-2
3-2-2
3-2
2-2-0
0-0
1-2
0-0
0-2
3-2-2
3-2-0
2-2-0
2-2-0
4-3-3
2-⊕
7-7
5-3
3-2-0
2-0-⊕
3-2-1
3-2-1
2-2-1
2-2-⊕
3-2-2
0-0
6-0-1
4-4
3-2
2-0-⊕
1-2
3-2-1
3-2-1
0-0
3-0
0-0
3-2-1
3-2-1
3-2-0
3-2
3-2-1
3-⊕
0-0
3-2-2
0

2-0
1-2
0-0
2-1
0-0
0-0-0
⊕
3-2-1
0-0
3-2-0
0-0
0-0
3-2-⊕
5-4-3
3-2
3-2
0-0-0
0-0-0
0-0-0
0-2
2-1-1
0-0-0
2-2
2-1-0
2-0
0
0-0
0-0-0
0
1-0-0
2-2
1-0
0
3-2
3-2-2
0-0
2-2
0
4-3
0-0
0
0 0
0
0

Peripheral census as of 2nd census

0-0
0
0-0
0-0
0-0
0-0-3

0-0
2-2 ← At this point found nest of one piped egg measuring with calipers 2.52 x 1.72 and one runt egg which was congealed and slightly rattlow measuring 2.12 x 1.50. Collected this set of one runt egg at (2-5-31-41)
0-0
0-0
0-0
0-0
0-0-0
0
0-⊕-1
0-1
0-2
0-0
0-0
0-0
0-0-0
1-2-0
0-0-0
⊕-0-0
2-0
0-0-2
3-2
0-0
0-1-2
0-0-0
0
0
0-0-2 ← This bird with normal dwarfed leg.
0
0

Observed that the gulls leave (at peripheral edge zone) about 30' ahead and are rather loathe to return to nests, while those in established or center of colony remain at nests until almost being stepped upon and then return to nests as soon as one has passed by.

410531-74

In passing one particular area noted a mortality of young birds slightly greater than elsewhere. This area also supported a very pugnacious bird, the fellows that enjoy knocking off ones hat or placing a bleeding furrow in the scalp; the oppressive friendly type. Recorded the number of nest conditions in this area 80' X 30'. Symbols as before except mortality underlined in red. Many factors account for fatalities of young on this island, principally man!

| | | |
|---|---|---|
| 2-0-2 | 0-0 | 3-0-3 |
| 0-0 | 4-3-4 | 3-2-2 |
| 2-0-0 | ⊕-0-1 | 0-3 |
| 4-4-2 | 0-0-⊕ | 2-2 |
| 0-0-0 | 3-4 | 0-0-2 |
| 0-0 | 0-2 | 3-3 |
| ⊕-2 | 0-⊕ | 2-0 |
| 0-0 | 2-4 | 3-2-0 |
| 3-3-3 | 3-3-4 | 3-3-0 |
| 0 | 2-3-2 | 2-2 |
| 0-2-2 | 1-2-3 | 0-2 |
| 0-0 | 0 | 1-2-4 |
| 0 | 3-3 | 3-0 |
| 2-1-0 | 3-3 | 3-2 |
| 2-2-2 | 3-0-3 | 0-⊕-2 |
| 0-2-2 | 2-2-⊕ | 2-2 |
| | 3-3 | 2-0 |

This area is flat with soils more plentiful with lack of bushes or rocks for shade.

Gulls copulating rarely. One ♂ copulating with ♀ on nest which supported one piped egg. A killdeer lit among the nesting gulls but was not molested. The gulls have greater trust for other birds than their own kind, except of course those forms like the Caspian tern which they have learned to deadly distinct. Observed 2 birds copulating at edge of a nest supporting 1 fresh egg. After copulation the ♀ and ♂ ruffled their feathers and ♀ took a position on a rock by nest while male went to nest and commenced incubating. The ♀ remained on rock for 5 min and then she approached male. At the edge of the nest she elevated and dropped her head 10 times after which the ♂ left nest and ♀ took over incubation while the ♂ gained rock and became very docile. Any captured gull that is force to flutter in ones hand draws great multitude of birds and

410531-75

with an accompanying scheme of the birds on the island. Annelids, June beetles and Crickets dominant food.

Collected the following eggs

(1-5-31-41) Set of 3 Calif Gull, all fresh. One heavily blotched, the other 2 pure blue.

(2-5-31-41) Set of 2 Calif Gull. One normal and nearly hatched, the other congealed and dwarfted. Collected small egg only. 2.52 X 1.72 2.12 X 1.50

(3-5-31-41) Set 2 Calif Gull. Took one egg only of set - fresh.

Picture (4-5-31-41) of island with bay edge in foreground. 100 X g filter.

Gulls fly out to water, drink first thing, then wash, and then stand on sand bars to preen feathers or fly back to territory where they continue to preen. One returning gull hit in several different territorial areas.

4-5-31-41

6-3-41

Camped Pine flats N. E of Aspen Grove with 10 members of Troop. Following day hiked over to Mill Peak. Tonite the Grey Ruffed Grouse drummed until 11:00 oclock P.M and probably after that time. At daybreak the following morning they were calling and continued until at least 7:00 A.M. Two Grey ruffed calling approximately 300' away. Heard one sharp call during the nite. Birds began singing in a regular procession beginning the ~~th~~ beautiful daybreak call of the robin. Animals observed in the immediate vicinity of the Pine Flat camp are: Eutamias minimus consobrinus, Grey Ruffed grouse, Audubon Hermit Thrush, Deer, Broadtailed Hummer, Red naped Sapsucker, Red tail, Cotellus armatus, Chipping Sparrow, Western Warbling Vireo, Flicker, Green-tailed towhee, G. H. Owl, Chickadee

410603-76

House wren, E. Ruby Cr. → Knight and Nuthatch. These forms were all active at 6:58. At 7:00 A.M. left for Mill Peak trending north up Post Mule flat to divide, hence across to ridge and then east to Mill Peak. Recorded the following forms from Pine Flat to Salamander Lake.

Citellus armatus
Western Warbling Vireo
Red Naped Sapsucker
House Wren
Robin
Deer
N Violet green Swallow
Tree Swallow
Batchelder Woodpecker
Martin - nest in aspen
Tanager ♂ and ♀

Green-tailed towhee
Flicker
Flycatcher (Sp ?) with bars.
Black Headed Grosbeak
Audubon Warbler - nest of 4 eggs in ~~aspen~~ abies concolor 2½ foot high Trees among aspen stand.
Grey headed Junco
Mourning Dove.
Red tailed hawk on nest.

Many water skater on Salamander Lake and all trending in same direction. Fresh badger hole 100 N. Sal Lake. Clematis just coming out. Lupine average 1 foot high. Arrived at divide at 8:15 A.M. Weasel ran ~~across~~ across the divide. Badger, Coyote, Porcupine at edge of creek. Skunk Cabbage 1 3/4 foot high just down from divide on deer Creek side. Chipping Sparrow carrying nest material. R Mt. Nuthatch. Douglas Fir tree 21' and 8" around at the 5 foot heighth level. Evidence of fir dying in aspen west of this big tree. Measured an aspen tree a short distance beyond measuring 96" in circumference at 3' high on trunk. (Took panaramic view) Spring beauties out, dogtooth violet predominant flora in aspen forest. Snows could not have left the surface too long ago. Country still in early spring stage. Some isolated aspen groups just in catkins and small leaf stage. Few maple and occasional oak on route. Out of 9 hawk nests found 1 used. Citellus armatus not as numerous or as generally distributed. Young Abies concolor stands 3'-12' high and always associated with old select stands of conifers. Pseudacris calling in spring pond at head of the canyon. This canyon is characterized by the

abrupt ending of this canyon. Most 410603-77 gullies have $H_2O$ which are dry in summer time. The floor of these forests are beautifully dark green. Conifer always associated with conifer stands. Heard many grouse but did not flush any. Dead magpie at dump. Butterflies and moths rare. At Pine flat again found Indian arrow head at spring also a deer at spring. Considerable timber being cleared at edge of forests at Pine Flat. Fence built last year.

6/6/41

Dr Beck and I made Rock Island Trip arriving at 6:45 A.M. Leaving mouth Provo River observed 3 pairs Purple martin and several dozen N.V. green swallow. Cormorant flew out to meet boat and then flew back toward island, hence north again. Upon arrival at island found no copulating gulls. Caspian Tern starting 3rd colony this new colony is 100' S.E of one used last year. The first colony started this year was completely abandoned. The second colony being depleted. The 3rd colony consists of 12 single eggs, 8 sets of 2 eggs and 1 set of 3 eggs. Those collected today were from this colony. In general found the immature gulls capable of leaving the nest and forming groups. Some adults protecting 6 and 7 young. As one walks along can count a dead young bird about 1 every 5 seconds. Many dead young with bleeding beaks and necks. The plot of 80 X 30 of last week count supported no living young or adults defending territories. Young feeds from open mouth of adult as food is regurgitated into the partially opened bill. Green cherries and annelids main diet. Gull 2 and 3 days old find it difficult to swim. Anal temperatures of immature birds ranging from 91° F to 109° F. Immatures 2 weeks old about 105° F In general there appears to be greater unrest in colony. 12 different groups of Great Blue Heron flying East to west

410606-78

across → Utah Lake. To check on the status of the nesting situation recorded the occurrence of the condition of nest in two areas; one in center of colony of gulls and the other on the peripheral edge of colony. Recorded according to whether nest was occupied, number of eggs and their condition, and age of young bird. The vacant nest infer that the young had left them and were found in groups. It is rather difficult to know whether they were still within their former territorial areas or even being protected by territorial limits.

## Census of Area in Center of Colony.

n = nest (young having left)
o = eggs
⊗ = pipped egg
2 = age of bird

Census according to the standard method of line interception.

| | | | |
|---|---|---|---|
| n | n | n | o |
| n | n | n | n |
| n | n | n | n |
| ⊗ o | n | n | n |
| 4 - 3 | n | n | o - 2 |
| n | 3 - 2 | n | n |
| n | 2 | n | n |
| n | n | n | n |
| n | n | 2 - o | n |
| n | n | n | n |
| o | n | n | n |
| o | n | o | n |
| n | n | o - o - 2 | n |
| o | n | 2 - o | o - o |
| n | n | n | o - 2 |
| o | n | n | |
| n | n | o | |
| | n | n | |

## Census of area on Peripheral Edge.

| | | | |
|---|---|---|---|
| 2 - 2 | 4 - 4 - 4 | o - o | 3 - 2 |
| o - o | o | o - ⊗ - 2 | 3 - 3 |
| o | o | 4 - 4 | o |
| 3 | o | n | |
| 4 - 5 | 6 - 6 | n | |
| 3 - 3 | o | o | |
| o - o | o - o - 4 | 5 - 5 | |
| o - ⊗ - 3 | 4 | n | |

410606-79

Collected the following Caspian Tern eggs.

1- 6-6-41 set of 2 Caspian tern
2- 6-6-41 " " " " "
3- 6-6-41 " " " " "
4- 6-6-41 " " " " "
5- 6-6-41 " " " " "
6- 6-6-41 " " " " "
8- 6-6-41 " " 3 " "
19- 6-6-41 " " 2 " "

18- 6 6-41 set of 1 Calif Gull.

By an examination of the eggs of both the Caspian Tern and California Gull can make these comparisons.

Color: and pattern is not dependable but on the over age color and pattern can be used. both ground color and superficial color.

Size: not dependable. Terminal not dependable but generally the gull has a more blunt terminal

Surface: Quite dependable. Tern smoother than gull even to the touch.

Gloss: not dependable but tern glosses and greasier.

Transparency. most dependable of all. When looking thru preparation hole of prepared egg with a light behind the tern egg is noticeable lighter than gull.

microscopical With low power the difference is not dependable.

Spots In the main the tern egg has rounder and more constantly sized spots than gulls but the pattern is diagnostic as the gull spots range right thru with the tern pattern represented in one stage of the pattern

[INSERT] 410608-80

June 8, 1941
inserted this date.

From
Boxelder
Ridge

3-6-9-41

6/8/41

Bopelder Peak environs. This area is situated north of American Fork Canyon and east and north of Alpine City. Trip involved pack and overnite equipment. Left 3:50 P.M on the 8th and returned 7:00 P.M the 9th. Started ascent from the Alpine Power House, hence to mouth of Phelps Canyon, hence up steep ridge bordering Phelps to high peak on ridge between Bopelder and Phelps. Camped about 150' west or down ridge of the last pass before point, beyond which, it levels off to base of Bopelder Peak. Weather stormy few days previous. Commenced to rain lightly as I left Power House. Arrived camp site at 7:00 P.M. Upon arrival at camp it proceeded to snow and half rain which gradually increased throughout the night and next day up until 3:30 P.M as snow at which time it measured 8". Snow line down to last flat of this ridge before abruptly dropping down into Alpine Valley. Temperature at 7:00 A.M 30° F. The bird life on trip up as usual. There is a noticeable number of birds in this type of situation that is the oak brush flat to mouth of Canyon, including the most typical and more frequently heard bird, Pipilo maculatus montanus. These birds are generally found singing, sometimes 5 or more at a time. Six Hedymeles m papago singing in about same situation as Towhees above. One Falco mexicanus flying across canyon. Zenaidura macroura marginella calling in Phelps Canyon. Frequently heard Spizella passerina arizonae. Vermivora celata a common caller. Occasional Turdus migratorius propinquus also a group of Penthestes (sp?). In ascending ridge found the area relatively barren except 2 Dendragapus obscurus obscurus, one on first ridge flat among the maple and the other one near camp. As I entered the conifer zone heard Penthestes (sp?), Sitta (sp?) and Hylocichla guttata auduboni. While it was raining at this time the bird life was still in evidence. A most unusual record of bird activity is recorded in a negative sense for the period from 7:00 P.M to 3:30 P.M the following day. during the period of snow and winds. Except for one chickadee, which

410608-82

called at 8:00 A.M., did not hear or see a living moving form. of course the observations were only made in the immediate confines of the tent at the camp site. This would give one an indication of the activity of birds at this level, and during such inclement weather. I even found myself pined to remaining in tent during the vagrs of the storm. During late evening while setting in tent could hear a serge of wind howling up north side of ridge. Could hear it progressing upward some few minutes before it would finally reach the camp. As it hit, the fire would turn white hot for the few seconds the wind was in effect and then all would be deadly quiet as before. The wind was characterized by the rapidity and abruptness in which it approached and left in just as abrupt a manner. All winds up north side of ridge. The most unusual observation was the apparent ability of the birds and animals to foretell the period when a storm is to clear. This was true of all forms except myself. They unquestionably recognize certain changing elements not detectable by our own mechanism. The storm cleared abruptly with fog and snow clouds raising from their common level some 1,000' below. These storm changes are characterized by wind movements, always upward. Before I could foretell this change the birds were already in action. First the Pipnus pinus pinus flew down the ridge, then the Junco caniceps commenced calling followed by the Penthestes and Sitta. One half hour later when conditions were still unstable a Aquila chrysaëtos canadensis soared high on north side of ridge and then skyrocketed down across ridge toward approx position of its nest in Boxelder Canyon this bird was observed to do this 4 times from 4:00 P.M to 6:30 P.M and always directing its dive toward its nesting area. As the storm started to clear went up the ridge a short distance and found that a coyote had been hunting the ridge very systematically not so many minutes ago and at about 80' from camp had turn south and descented slopes murder to evade my tent. Occasional chipmunk trail in snow. A Dendragapus obscurus obscurus left Abies

above camp. One is impressed with the ability of wild life to endure such severe winter conditions. This contrast was emphasized at the time I base camp when 8" of white snow surrounded a small patch of spring flower protected by tent during deposit of snow of last nite. South side of ridge during storm clearing held enveloped in fog with cleared north side blowing the rising fog into the air with a long fog banner.

Low fog clouds lowering over Traverse Range at about 4:20 P.M. Aspen leaves in young and yellowish state. Left at 5:30 P.M and arrived at Power House at 7:00 P.M 4 prs of deer on trail on return. They were distributed equally along the way being 2 at camp and 2 at base of mountain. 1 Clark Crow lit in tree (Abies concolor) on ridge at camp and then left without calling again. Another nuci-fraga columbiana at last maple flat down ridge. It acted as one above. Both bird flew up from the south side of the ridge. This area is a most likely looking Clark Crow country. One isolated oak with leaves a decided yellow. Tent caterpillars had eaten many trees (oak and maple) on flat on ridge. On final lapse of trip found 4 pr. of W. Tanagers moving up Phelps Canyon and am wondering if possibly the movement had been initiated by the storm or if possibly their feeding habits could be responsible. Noticeable number of birds in maples and oaks at mouth of Canyon. No lizards observed on entire trip. Balsamorhiza at base of mountain 98° withered while higher at camp sets the flowers in prime condition. Mr Peterson at Power House reports that he had seen bear tracks at base of Boulder Peak at head of Grove (Boulder Canyon) Creek. Mother and Dad met me at this point. Dad had examined 4 sharp shinned Hawk nests on east side of Alpine Creek near the Power House. No eggs. Dad said that Mr Dunstin's son had related the fact that his father had collected 12 sets of Nucifraga columbiana from range east

of alpine 410608-84 from Boreder Canyon south for 2 or 3 canyons. Mr Johnson of American Fork and Tregonza made an attempt at one time. One clark Crawled them directly to the nest. (would question this last statement.) In conclusion can say that birds and mammals are not active during these spring snow storms in windy ridges but are active immediately after storms changes. Dendrogapus obscurus obscurus plumage appeared to be, at least externally, water soaked.

[see page 410609-80 for June 9, 1941]

6/22/41

Beddulphs Cabin at Aspen Grove. Corynorhynchus r pallescens on Abies concolor with 2 young. Adult covers young with partially extended wings as many birds are prone to due. Spiders over $H_2O$ catching insects treading in circles on surface. Hummer, chippy in evidence after sun had set

4/25/41

Ascent Baseelder Peak (Thermometer mt or Sleigh Runner.) Daybreak 3:50 A.M at Provo. Robins and a Pewee or some type of flycatcher that sings most every hours of the early morning and late evening. Left Provo at 4:00 A.M. Calif Gulls flying over field at 4:00 P.M. About 1/2 mile down canyon from the Alpine Power house observed a deer among the open field in flats. also a cottontail rabbit. Left the Power House at 4:36 A.M and trended east to mouth of Phelps Canyon. Enroute to base of mt at Phelps Canyon observed the following.

- Xanthocephalus xanthocephalus 3
- Passerina amoena 3
- Pipilo maculatus montanus 6
- Penthestes 1
- Aphelocoma californica woodhousei 1
- Vermivora celata (?) 3
- Selasphorus platycercus platycercus
- Peuca peuca hudsonicus 3
- Several crickets calling.

Cool down canyon breeze. Few isolated clouds in sky.

410625-85
started up medial

Arrived mouth Phelps at 5:10 A.M and ridge between Phelps and Boulder Canyon. At point on this ridge a 100' or so above floor of canyon recorded the birds heard on west exposure and those hear in Canyon proper. Birds of west valley exposure are:

Hedymelas melanocephalus papago 2
Passerina amoena (?) 3
Pipilo maculatus montanus 6
Penthestes 1
Aphelocoma Californica woodhousei 1
Vermivora celata (?) 1
Selasphorus platycercus platycercus 1

The vegetation of this exposure included Juniper, oak, red penstamon, symphoricarpus, mohogany (3 sp), and cliffs. Sun on lone granite peak at about 5:20 A.M. Birds in Phelps canyon are:

Pipilo maculatus montanus 4
Zenaidura macroura marginella 1
Selasphorus platycercus platycercus 2
Hydemales melanocephalus papago 1
Unknown call 1
Penthestes 1

The form of vegetation included Abies concolor, oak, mohogany and Juniper but typical canyon type. Continued up to first maple flat at apex of the main ridge fractal spur. On way up found deer tracks more numerous than last weeks trip usual bird up ridge, singing on both sides. Arrived at the maple flat at 5:54 A.M. Birds heard here included: Cyanocitta stellari ~~cottomi~~ 3, Papilo maculatus papago 1, Hydemalus ~~melanocephalus~~ papago 1, Vireo gilvus swainsoni 1, Warbler (sp?) 2, Spizella passerina arizonae 1, Head of flat at 6:05 and now starting up main ridge between Boulder and Phelps canyon. Complete census from this point on 605 A.M (recording as I progress up ridge and indicating time facts) Cyanocitta stellari cottumi called, Papilo maculatus montanus singing from oak, 3 Dendraica aestiva aestiva, Cyanocitta stellari cottumi calling, Papilo maculatus montanus calling, Aeronautes savalatis saxatalis flew by, Junco concepo calling, one Junco concepo flew down to another concerned. A Spizella passerina arizonae and Papilo maculatus montanus sing-

4100625-86

on → north side of ← ridge, Selasphorus platycercus platycercus passed by calling, Cyanocitta stelleri cottomi, Sulus sparverius sparverius, Spinus pinus pinus, Aeronautes saxatalis saxatalis flew by, Spizella passerina arizonae and Sitta (sp). 6:25 A.M Sitta, deer tracks always present, decided difference of bird life since entering Conifers. Siberian jumper present. Colaptes cafer collaris 6:50 A.M. Tamiasciurus hudsonicus ventorum to north, Spinus pinus pinus calling up ridge, Myiadestes townsendi, Regulus satrapa olivaceus, Junco oreganus, Spinus pinus pinus calling, one flew down ridge, Vireo, Penthestes group calling as the work in conifers, Junco oreganus and Warbler, Sitta. Arrived at first aspen flat 7:00 A.M. Most of the birds in conifer edge west of pass. From this pass recorded the following in the next five minutes as I sat at pass. Most of the forms heard and are duplicated in individuals, that is recorded calls regardless of whether they were made by same bird

7:00 A.M

Spinus pinus pinus flew by
Dendroica auduboni auduboni 4
Penthestes atricapillus septentrionalis 8
Nucifraga columbia. called up canyon

7:01 A.M

Penthestes atricapillus septentrionalis 4
Sitta (Sp?) probably canadensis 2
Dendroica auduboni auduboni 4

7:02 A.M

Penthestes atricapillus septentrionalis 4
Audubon warbler 4
Selasphorus platycercus platycercus
Dendragapus obscurus obscurus drummed up canyon.

7:03 A.M

Penthestes atricapillus septentrionalis 1
Eutamias calling
Nucifraga columbia calling up ridge
Dendroica auduboni auduboni flew to top of tree and offered a song
Sitta canadensis 1

7:04 A.M

Sitta canadensis 1
Dendroica auduboni auduboni 4

Eutamias calling up ridge.
7:05 A.M
Audubon Warbler 5
Eutamias calling up ridge.
7:06 A.M
Dendroica auduboni auduboni 3
Dendragapus obscurus obscurus drumming up canyon.
Hydemelas melanocephalus pagago singing
Aeronautes sabatalis sabatalis in Bobelder
Hylocichla guttata just beginning to sing.
Left pass at 7:20 A.M. Perangs ludoviciana, Dendroica a auduboni, 2 ♂ Piranga following each other, Dendroica auduboni auduboni singing, Hylocichla guttata singing, Sucelophorus, Dendroica aud. auduboni, Sucelophorus. Now 7:28 A.M and at old camp site of last week. Picked up ope which I had been forced to leave at site because of snow covering during my stay. From here can hear Nucifraga columbiana calling from head of of Bobelder, Several Dendroica auduboni auduboni, Eut calling to south, 2 Hylocichla guttata, 3 Pipilo maculatus montanus singing, Spinus pinus pinus calling. 7:32 A.M Last aspen flat. Aggregation of birds at this flats and pass. Dendragapus obscurus obscurus drumming near, Nucifraga calling, Spinus pinus pinus flew by, Dendroica auduboni auduboni singing, Troglodytes aedon parkmanni singing, Oberholseri Chlorura. 7:48 arrived at what could be considered the top of ridge proper but still some distance from Bobelder peak. Dendragapus obscurus ob left from rocks at 15'. From here can hear Dendroica auduboni auduboni to west and in upper Bonneville drainage can hear Aeronautes sabatalis sabatalis, Dendragapus ob. obscurus. Penthestes, Hylocichla guttata, Mydestes townsendi, Eut. Cyanocitta stelleri coloni, Spinus pinus pinus and Tachycineta thalassina lepida. Left top after recording the above forms at 8:02 A.M. Recorded picture (1-6-25-41) on ridge sloping east with typical ridge vegetation and Bobelder Peak in background. A clark crow lit in tree in foreground just as I snapped the shot. General trend of course partially outlined in picture. Tamascuerus

hudsonicus 410625-88 ventorum calling on north exposure, three Hylocichla guttata singing, Junco Conuceps calling. 3 Junco caniceps singing to north; Eutamias called, Spinus pinus pinus flew by, Junco Caniceps called; Eutamias. 8:36 A.M now on divide and flat beyond the perceptous cliff section of ridge. Salpinctes obsoletus obsoletus called, as I walk along can hear 3 Hylocichla guttata singing, 4 Junco Caniceps singing, Eutamias, Salpinctes obsoletus obsoletus, Dendragapus obscurus obscurus and Cyanocitta stelleri cottomi. Occasionally a deer track. These birds recorded are not duplicate as was the five minute census of songs hear below. 8:45 A.M


1-6-25-41

Penthestes, Spinus pinus pinus, Colaptes cafer collaris, Mydestes townsendi, Cyanocitta stelleri cottomi in conifers below to south; pair of flycathers (?) one with ruffed head feathers and possessing a very sharp call. fresh deer tracks on snow-bank, observed deer below to right. Deer track more numerous. 9:00 A.M. Oreoscoptes montanus, Hylocichla guttata, Juncos still singing, Shakin flying by. Six Citellus armatus, water entering gopher holes, vegetation just pushing up and about 4" high, fewer birds across the more open flats at the base of the peak, badger holes definitely correlated with Citellus areas. Dead citellus, cyote tracks around edge of snow. Continued over ridge and dropped down into a lake at head of Bofelder Canyon arriving at 9:25 A.M. Recorded picture no (2-6-25-41) of lake with American Fork ridge in distance. It was along this ridge that I later traversed in the afternoon after descending Bofelder Peak. Fresh deer and coyote tracks around edge of water. Spring running good. Left lake at 10:00 A.M. and trended toward base of

2-6-25-41

Bofelder Peak. Hylocichla guttata, Nucifraga columbiana in dwarfed conifers, thrush singing in conifers also. Group 5 Nucifraga columbia in area also another group of 2, Erosional gullies ranging from 5' to 25' in width. Nucifraga


LAKE

410625-89

Columbia calling continually probably representing 15 birds altogether. Trails flowing over snow. At 10:15 A.M. reached last bench at base of Boulder Peak. Directly below this bench is located a highly fractured outcropping with numerous and probable fossils. The following birds and mammals called from this point:

Sphyrapicus pinus pinus
Calaptes cafer collaris
Citellus armatus
Sciurus abietinus abietinus

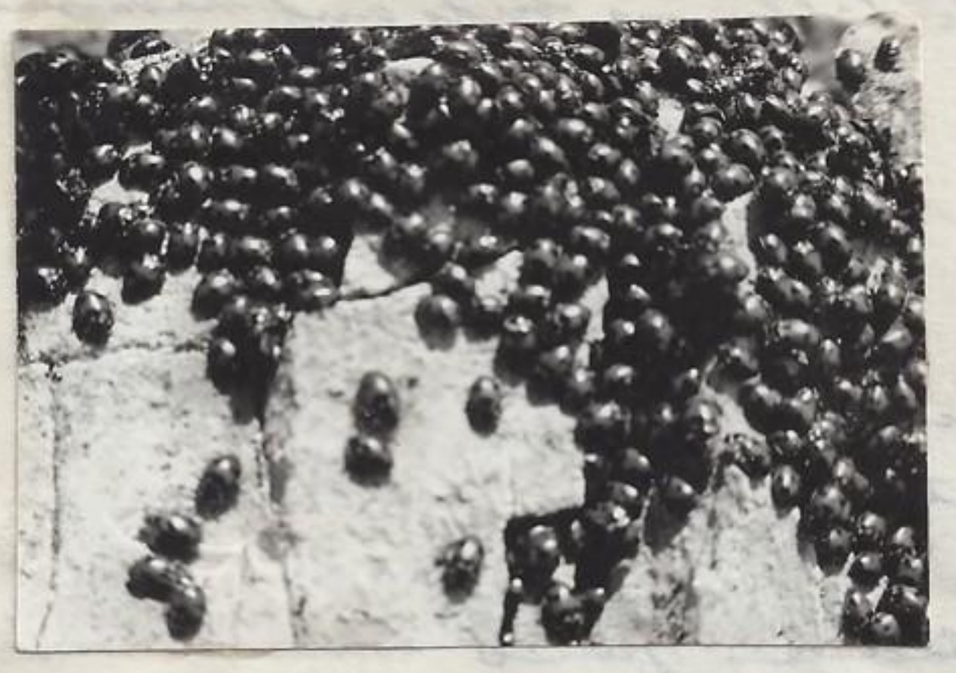
The citellus armatus average about every 200'. A burnt log makes a conspicuous landmark. Now at dormant aspen level with Eutamias, Oberholseria chlorura, Junco concinens and dominance of prickly current. Made west exposure traverse to north ridge arriving at 10:50 A.M. From this point continued north along ridge a short distance to record the north exposure of Boulder Peak. Snow slide advanced at 3/4' a second. Group of 2 Rana Columbiana and one other single on this ridge. Also 1 Mydestes townsendi and 1 Junco concinens. From the most distant point along the ridge took no (4-6-25-41) of the north exposure of Boulder Peak. The ridge was used on return to gain the upper most peak in the upper left hand corner. There is found in this area a certain artistic symmetry that is difficult to reproduce in any of the glacial cirques of the range. One would never realize that this represents the opposite exposure of picture no (1-6-25-41). Picture no (5-6-25-41) shooting north from ridge above with the Granite Range as subject. Favorable ridge habitat for Clark Crow. Picture taken 12:00 A.M. Continued along ridge to point in right hand picture of 4-6-25-41 from which

4-6-25-41

5-6-25-41

410625-90

no 6-6-25-41 was taken showing Timpanogos in background. and course taken. The open exposed area supported Citellus armatus. Pictures taken later in day from ridge in middle right hand side. Arrived at top of Boreider at 1:45 P.M. Pika in cirque to north. 200' down ridge to the west found aggregation of Sypodamia lecontei mus. Another group 20' down west on ridge from highest peak of Boreider and to the west. Needed guess or approximate the number. (6a-6-25-41) Aeronautes saxatalis saxatalis flew by occasionally. From the top recorded picture of Granite Range. (6b-6-25-41) (Could have been taken on ridge to north but did not record at time so represents a question as to position taken. Made descent down erosional gulch filled with snow, and can say was made in no time flat. Was able to initiate a considerable forceful snow slide. As I approached the pass found the Citellus everywhere. Eagle flew in cirque east of pass. A marmot call in response to the eagles passage. Arrived at pass at 2:12 P.M. Picture no (7-6-25-41) taken just before arriving at Pass. Distant peak destination of next movement. In this area found the Spinus pinus pinus nucifraga columbiana, Citellus armatus, At pass proper found the snow covered with Colorado Blue Spruce cones, Engel. Mamm Spruce and Douglas Fir. Continuing south toward peak found 2 groups of 2 Nucifraga columbiana and many Citellus



6a-6-25-41

6b-6-25-41

7-6-25-41

410625-91

armatus. Many of them climb current bushes until approached then leave. One citellus hole issuing thru a snow field. Badger diggings, fresh, with nest material of the citellus strewn over the ground. Knight singing occasionally. (Meant to mention rock wren and Eutamias on top of Boulder Peak) Arrived at peak 3:12 P.M. Several Nucifraga columbiana calling to the south. Marmot calling down east ridge, and to south about 200'

8-6-25-41

Picture (8-6-25-41) of north cirques of Timpanogos. Left top at 4:24 P.M. Red tail soaring above peak. From the pass mentioned above to the peak of 3:12 P.M recorded 35 citellus armatus. From peak traveled west and south along ridge leading down south side of Bokelder Canyon. Arrived low pass 4:38 Good Engelmann Spruce stand to S. West. Along ridge found Eutamias umbrinus on north exposure and Eutamias m. consobrinus on the south side of ridge. At the head of Swinging Bridge (?) Canyon can hear Dusky grouse, Clark Crows, Cliff and Cliff swallows. 3 Nucifraga Columbiana on this ridge Took picture (9-6-25-41) of Timpanogos at 5:20 P.M From comparison of the two areas would say that the head of Bokelder Canyon was the more popular of the two from the standpoint of the Clark Crow. From this point took also Picture no 10-6-25-41 of timp and

9-6-25-41

then dropped down north exposure to ridge and finally gaining spring near lake visited earlier in day as recorded Left spring at 6:00 P.M. Citellus inactive at this time Hermit thrushes, Juncos and Tanager Main congregations now

450625-92

10-6-25-41

On return down main ridge found the 2 flycatchers in same area (mentioned before 9:00 A.M notation), also the Dryobates villosus monticola was in same area. As the day was closing made hurried descent down Boulder ridge as traversed this morning to arrive at Power Plant in dusky light. with a few notes at least indicating distribution at this particular period of the year of the elusive Rana Columbiana, known to nest in the Canyon adjacent. Last picture a late insertion recorded earlier in notes. The bench land at base of picture of Timp appears to be an old erosional level of the Wasatch development. Profile of east and west exposures of the peak in the foreground of interest and illustrates the result of the two types of erosion effective.


6-6-25-41

[see next page for June 22, 1941]

X

→ stewart cirque

11-6-22-41

10-6-22-41


PASS

6/22/41
[Entered June 25, 1941]

410625-93

ascent of Mt Timpanogos involving full day observations in the field. Day clear and warm, particularly at lower levels. Observations and casual notes as follows. Left the Deer Creek aqueduct at 3:00 A.M. which is a short distance from the base of the mountain and trended toward the mouth of Dry Canyon, arriving at (mouth Dry Canyon) 3:50 A.M. The mouth of this canyon is characterized by high cliff bordering the sides of the canyon. Day break at about 3:00 A.M with skyline distinct shortly after. At mouth of canyon heard a Phalaenoptilus nuttalli nuttalli calling in characteristic tone to the right, Also a Chordeiles minor heard as it called and presented its vibrating wing sounds. Swallows heard continually in air from mouth to first set of confining cliffs. Could hear but to dark to see. Wind down canyon. 200' up canyon found 2 porkypines, they being only 10' apart. Elderberries in beautiful blossom. At mouth of canyon found the grasshoppers so numerous that they represented a continual flow preceding my movements. Reminded me of a rain shower. Lizard active at 3:58 A.M. Only one Pipilo maculatus montanus in canyon at Gate (confining cliffs) area. From the first flat beyond the last set of cliffs could hear 15 Pipilo maculatus montanus calling. The area included extensive hillside exposures toward Big Baldy and to the east across Dry Canyon as well as to the south. This-oak-maple slopes make ideal country for the Towhee. One Phalaenoptilus nuttalli nuttalli calling to the right. One Phasianus colchicus torquatus called. Noticed one contrast in Towhee numbers. The scarcity of numbers in confining canyon below as compared to the numbers found on more open hillside exposure beyond cliff area. Two factors involved; one being time of day at which time the two areas were visited and type of habitat involved. Another Phalaenoptilus nuttalli nuttalli calling to the left. An unidentified warbler (?) calling on several sides. Am impressed with the adaptability of this country for the Spurred Towhee. 4:15 A.M Bees active in oaks 4:26 A.M Last small flat before spurs of Big

410625-94

Baldy ridge. A Phalaenoptilus n. nuttalli calling on this ridge. Penthestes calling. Geusidura macroura marginella calling from the west. 4:30 P.M. Dropped down now to the floor of Dry Canyon. Glycalchers, Towhees, 2 Hedymelas melanocephalus papago and 2 unknowns calling. From 4:35 A.M to 4:40 A.M made count of forms as I proceeded along trail in canyon. One bird only represented as far a duplication of calls is concerned. The area represented is from outcrop of cliffs to left to second set of cliffs a short distant beyond.

Hedymelas melanocephalus papago 7
Pipilo maculatus montanus 22
Glycatcher 3
Unknowns 5
Dendragapus obscurus obscurus (right) 1
Eutamias dorsalis utahensis 1

The chipmunk appeared to be in a semi unconscious state of mind in a crock of an oak tree 10' from the ground. At my approach and hitting tree with a stick, it become very much alive and descended in great haste. Would it have possibly been sleeping and had not yet started on its days activities. If so it represents a most interesting place of resting for this form. Many crickets calling. 4:40 A.M. Hummer passed, active gopher, Oberholseria chlorura. Dendragapus umbellus umbelloides drumming to left. Usual birds present but have noticed a greater number of Hedymeles melanocephalus papago now than below in canyon. Penthestes calling. 5:00 A.M. 5 Vireo calling (?) Sudden appearance of this bird Spizella passerina arizonae with worm in mouth. Pipilo calling. 5:03 Hummer passed. Occasional active lizard. Occurrence of Pipilo with habitat. Chokecherry in blossom. Few active gophers. Nothing new in bird forms. 5:12 A.M The chokecherry blossoms very conspicuous. Can hear first Hylocichla guttata. 5:20 A.M approaching the more open flats and nearing divide of Big Baldy and main mountain. From these flats can hear at one setting:

1 Hummer
5 Vireos (dominant)
3 Pipilo maculatus montana
1 Hylocichla guttatta
1 Hedymeles m papago
3 Spizella passerina arizonae

5:23 Signs now of active Citellus armatus. Heard first singing Spizella passerina arizonae. 5:32 Lost flat below divide. From this flat can hear:

4 Vireo
1 Spizella passerina arizonae
1 Summer probably (Selasphorus p platycercus)
1 Pipilo maculatus montana
3 Troglodytes aëdon parkmani
1. Oberholseria chlorura
2 Junco cinereus - fighting & chipping sparrows
1 flycatcher (sp?)
1 Dendragapus umbellus umbelloides - drumming

at divide some 400' beyond.

Traversing trail thru aspen on approaching divide found a ♂ Sialia currucoides. Fresh deer track and fresh coyote droppings in trail. A Dendragapus obscurus obscurus left near divide. Arrived at divide at 4:50 A.M From this divide recorded the birds calling and representing forms present at one time.

Vireos
Few Spizella passerina arizonae
1. Troglodytes aëdon parkmanni
1 Pipilo maculatus montanus
Phoebe (?)
1 Dryobates villosus monticola
1 Selasphorus p platyrhynchus
1 Dendragapus umbellus umbelloides

The bench land at head of Battle Cr drainage and associated canyons supporting a green surface appearing much like a cultivated lawn. Left divide at 5:58 A.M As I left to the N. E from divide flushed 3 Dendragapus obscurus obscurus among the aspen and willow. One lit in top of aspen tree where it remained while I passed by. 2 moths copulating resembling this pattern.

Largest of our moths in this area. Colder at this zone. Many tent catepillars en-route. 605 A.M. Now at falls in main canyon leading up from Dry Canyon. Numerous tent catepillars in chokecherry and Symphoricarpus slopes Snow packed in gully. Sun now on Big Baldy

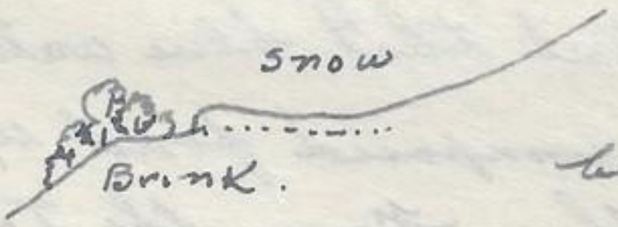
410625-36

Slopes up this canyon ~~slope~~ mainly and dominately Artemesia. Small chokecherry and Symphoricarpus second in dominance. Few Pipilo maculatus montanus but not in as great a numbers as below. One common but unknown bird form. Deer tracks crossing snow in gully. 6:15 A.M. Now have gained elevation in canyon at horizontal level with prominent cliffs to west. These cliffs have a natural window that is a good landmark. Many deer tracks on trail above cliffs. Animal forms approve of cliff brinks for established trails. No cattle at this elevation. 6:30 A buck deer standing among artemesia approx 400' up west slope. Horns fully developed but still in velvet. This is one of the largest deer observed on this mountain. It left up gulch and over ridge to the west. At 6:45 A.M took picture (1-6-22-41) of Utah valley with mouth of Provo Canyon in near foreground. Provo City in middle ground. Many interesting geological features presented in this picture. Pipilo maculatus montanus only birds singing at this zone except an occasional Oberholseria chlorura. At this point found first well established deer trail. How I would love to remain here all day to watch the mammal forms that might be using it. Intense sun creeping slowly down to the glacier pass above. 6:55 A.M. Heard first Salpinctes obsoletus obsoletus. 2 birds represented. Four deer on opposite side of canyon from where the large ♂ buck was standing and on same horizontal level. They were all bucks ranging in age and size from 3-5 and from light gray to intense brown. These deer are located at that transition zone between the solid chaparral below and where the more sparse and dwarfed artemesia and lupine take over in a more or less last step before the barren exposures above. 7:15 P.M Up to deer level. 2 Pipilo maculatus montanus calling. This represents their upper altitudinal level. These birds frequently heard and dominante. Only other bird calling being Salpinctes obsoletus obsoletus. 4 or 5 sets of deer crossing at this level

1-6-22-41

410625-97

7:24 A.M. Convergence of the two drain- ages of the cirques at the head of this canyon, one leading directly to glacial Pass and the left to the cirque leading to peak. More $H_2O$ issuing from the west cirque. From this point on the terraine become very interesting. 2 sets of deer trails across snow at this point. Snow continuous in gully from 400' below first fall at 6:05 A.M except for falls proper. 2 sets deer tracks above falls at convergence. Good signs of Cotellus armatus. 7:40 A.M. Level with current patch along brink. One Cotellus nest 1½ feet in diameter at the edge of the lake. Dropping associated like:  nest chamber in center of dry grass well insulated from the snow. 7:42 A.M First Zonotrichia leucophrys leucophrys singing or otherwise. Animal or bird life rare beyond this point. 7:56 An Aquila chrysaeta canadensis flew across west cirque flying, at what I presumed, was only a few feet above the rock slides and cliff exposures. Heard first Cotellus calling. Two others now observed: 8:02 A.M Brink of cirque leading up to pass. Three Cotellus here. The cirque snows appeared to have suffered slight movement down-ward with advanced edge now at brink. The rim or brink clear of snow with vegetation occupying the edge. It was here where the Cotellus found spring advance far enough to allow for their activities. no birds. The snow field above nearly ice. Found many insects, grass, flies, moths, butterflies on cirque snow. Average surface supported approx 7 insects per sq foot of snow area. Several oak leaves present which indicated that they were blown from lower limits. Heard pika while crossing these snow fields. Gained divide ridge between this cirque and one to east arriving at 8:14 A.M. The pika only form heard or observed except one Aeronautes saxatalis saxatalis which flew by. One pika left rocky ridge and escaped under snow at edge of exposed ridge. 8:26 A.M No life represented except mute evidence of Marmota dropping along ridge. Arrived



410625-98

Pass at head of Glacier cirque at 8:48 A.M. to find a strong south breeze cross the divide. From near pass recorded cirque walls on west side of cirque. The abruptness of lower two resistent layers are found to become progressively steeper as one approached the head of the cirque. This is in agreement with the time or period of time of glacier effect up the confining walls and the recenticy of glacier action. This exposure is one of the most interesting slopes on the mountain. Picture (2-6-22-41) records the

2-6-22-41

area under consideration. Continued up ridge to Top arriving at 9:12 A.M. One Anthus spinoletta flew up to ridge from ledges to the west. From this point trended north along a lateral ridge which terminates at the bold abutement ~~a~~ standing at the base of which is Emerald Lake. This ridge represents the east wall of the Glacial Cirque. Could peer directly down upon Emerald Lake and found it to be ice bound but fracture to the extent that blue water were issuing to surface to form a superimposed pond upon the theoretically preexisting lake beneath. From the Top of the abutement recorded terraces of hidden lake Cirque. (Picture 4-6-22-41) These walls are decidely abrupt with unstable shelves of rock and snow. It is interesting to note the zone of vegetation which occupies the very edge of the bench. It will be noticed that it is along this edge were the snow is first to leave due

4-6-22-41

to the effect of the wind which removes the snow along the sharper edge. How these conifers endure the exposures of winter time is beyond me. Picture (5-6-22-41) shows terminal of this

410625-99

Abutement ridge with American Fork peaks in the skyline. Am. Fork cirque has considerable snow reposing in floor. Petrochelidon albifrons albifrons only bird present in this particular section, however, could not but help feel that it was a most favorable habitat for the finch, leucosticte and pipit if only they chose to inhabit it. Picture (6-6-22-41) taken on return to top after side excursion on lateral ridge. It presents the head cirque walls of Stewart Cirque and the ridge beyond where I was to later traverse. These Pennsylvanian rocks presents an outstanding topography and picture of sheer ruggedness and steepness; a good home for the once common Mt Sheep that inhabited the mt. Provo Peaks and Loafer Mt in backgrounds. On way back to top found the Lady beetles occurring one every 40' with localized areas of congregation. Petrochelidon albifrons albifrons only bird observed at this heights at this particular section. Return to top at 11:30 P.M. where I had previously left at 9:12 A.M. earlier this morning. From this point continued east along ridge arriving at top of Cleops at 11:45 P.M. This triangle is plainly discernible from Provo and appears much like one side of the old pyramids of Egypt. From this point took picture no (7-6-22-41) of the upper terminal of the Stewart Cirque. The lower right hand section of picture represents the lowest limit of the ridge ascended. The Cascade Mt dominates the picture with the rugged Provo Peaks beyond. The same erosional surface of these rocks are carried thru each

5-6-22-41

6-6-22-41

410625-100

cirque. One pika on south face of Ceops in large rock slide area. No other form except one Aquila chrysaetos canadensis observed at 11:30 A.M as it flew across picture no 6-6-22-41 alighting upon a ledge on opposite side of cirque near ridge. Left the top of Ceops at 12:00 Animal trails on these ridges probably play an important

7-6-22-41

part in their even restricted movements. At base of Ceops found an unusual or at least conspicuous strata of grey limestone. 3 ♂ and 2 ♀ deer left head of Canyon to right, ♀ led. all males in velvet. At 12:25 saw Citellus lateralis castanurus 15' down from ridge on cirque side. It did not mind my presence. Finally left with a single call.

Picture (8-6-22-41) of a warning snow cornice in its last stages of existence formally one of the most powerful and forceful features of the winter exposures. It is now harmless and suffers inevitable extinction, at least a seasonal death. Picture (9-6-22-41)

8-6-22-41

of the upper reaches of Stewart Cirque with Cascades in the background. The lowest pass on ridge gained is represented in this picture. It lies as indicated by arrow. A coyote had cross from the cirque to ridge at this point. The fracture system should be studies of these cirque exposure as it would unquestionably lend valuable evidence in the geological history of the Wasatch mt formation. This

9-6-22-41

cirque offers excellent skiing possibilities for those who

410625-101

are willing to exert the necessary effort to gain these heights. From lowest pass as mark crossed horizontally across slope to ridge. From this vantage point one has a commanding view of the Cascade, Provo Canyon and all points west. Met here a Mr Citellus lateralis costanurus 10' off ridge crest. After pausing for some time gave the camera a chance to view such rare scenic country. Results are as follows in pictures (13-6-22-41) of the Cascades and pano- no (14-6-22-41 (1)) and no (14-16-22-41 (2)) of Utah Lake and adjacent country. The cascades has a basal foundation sufficient to withstand occasional fault movements. The

13-6-22-41

avalanche tracks are clear cut and of such a persistent nature that the State Road Commission can expect their frequent and unentrallable accurence in the future for evermore. Bridal Veil appears to be merely a white thread upon the massive base of this mt. One again feel that a study of fracture systems of such picture book exposures would offer a substantial piece of evidence concerning ~~of~~ their formation. The extent of Utah Lake clearly represented in panoramic. Left vantage point at 1:00 P.M. Fresh deer tracks in the upper

14-6-22-41 (2)

14-6-22-41- (1)

reaches of the south exposures. Trails mainly below the more heavily erosional cliff exposure. 3 or 4 deer in

410625-102

each drainage head. Made horizontal traverse to canyon leading down into Dry Canyon. Descended upon the snow filled gulch. Observed one section of gulch bank 10' x 40' which had slid into the stream this represents erosion in a very pronounced degree. Many gophers active in black, rich soils. As I left the snow filled gulch found a marked change in the temperature of the gulch. Did not realize the comfort of the snow lined gulch until I stepped into the bare gulch to find the temperatures almost unbearably hot, a miserably hot, humid, oppressive atmosphere. The water capacity was noticeably less at the lower limits of this gulch. Associated with this change of environment was a marked change of butterfly distribution. The terminal of the snow tongue represented the upper limit of the butterfly aggregation found in humid snow free gulch below. Continued down to flat, hence to Gate (cliff area), hence to mouth of Dry Canyon arriving at 2:45 P.M. Picked up the Citellus grammurus utah and Pica pica hudsonius at mouth of Canyon, also group of 6 Aeronautes saxatalis saxatalis. Experience a physiological condition at upper heights on peaks which I never felt before, at least in such intensity. At about the 12,000' level my heart would beat relentlessly at the least climbing exertion. Picture (15-6-22 41)


15-6-22-41

plots the general course taken and is so recorded as to allow correlation with notes. At the point marked 9:12 A.M. took lateral ridge to north and not indicated in picture. Recorded from Orem City on road leading to Provo Canyon.


8:48
9:12
11:45
Left
1:00 PM
7:24
450
6:05
350AM

410625-102.1

# Draftees Inducted

The following selective service registrants were inducted at Salt Lake City Wednesday and ordered to Fort Douglas reception center for classification and assignment to army training camps:

## Utahns

Murray, Salt Lake county, local board—James Arvid Hellstrom, 4000 South State street; Kenneth Thompson McCleve, 180 Wentworth avenue; Kenneth Elmer Heiden, 3145 Park street; Leonard Alan Eliason, 3492 Highland drive; Hyrum Earl Chapple, Idaho Falls, Idaho.

Midvale, Salt Lake county, local board—John Domle Sumbot, Midvale; Vaughn Samuel Crane, Herriman.

Ogden, Weber county, local board No. 4—Francis Patrick Foley, Ogden; Joseph Denzel Swenson, Ogden.

Ogden, Weber county, local board No. 5—Elwood Wallace White, Ogden; Fred Raymond Hislop, Huntsville.

Provo, Utah county, local board—Donald Walter Rhodes, American Fork; James William Bee, Provo; Richard Hone Clark, Provo.

Tooele, Tooele county, local board—Louis Salamena, Tooele; Sherman Irving Rutledge, Tooele.

Coalville, Summit county, local board—Edwin Thompson Stevens, Henefer; Orson Dawson Hennefer, Henefer.

## ASSIGNED TO DUTY

Two recently-enlisted Provo men have been assigned to duty, according to word from the Fort Douglas district reception center.

Richard H. Clark has been assigned to the coast artillery replacement training center, Camp Callan, Calif., while James W. Bee has been assigned to the medical corps, Barnes General hospital, Vancouver, Wash.

6-25-41

Drafted into the army on this date at the Fort Douglas Reception Center in Salt Lake City, Utah. Left here July the 2nd and travelled Union Pacific to Vancouver, Washington, at the Barnes General Hospital

7-2-41

Enroute to Vancouver met Mr. Cross an inspector of railroad equipment on this line. As I passed along the Snake river from Ontario on to point where train crosses the river and heads up Canyon toward Huntington, at especially Weiser, was impressed with the numbers of waterfowl utilizing the river. This snake river plays an important part in the offering of suitable and relatively undisturbed nesting grounds for both the duck and geese. Certainly if this river were not present the waterfowl would have a problem in utilizing the unstable and limited agricultural areas adjacent the river course proper. The ducks and geese literally lined the river edge. Noted, that while they were generally distributed there were some area greater populated than others. Most of the ducks and waterfowl utilized the peripheral 100' of the river edge feeding in the emergent masses and water plants found consistently along the edge in the slower moving section of the river. The trails among the green masses etc. indicated their continual use. The more familiar site was family groups of ducks and geese; the young ones following closely after the adult birds. As the train passed along the edge of the river, the ducks would be seen leaving the water masses and edge of river and ~~and~~ would swim out into the center of the river. In contrast to this procedure of the ducks, the geese in turn would fly clear across the river and alight upon the opposite side of the river. In an favorable section of the river counted 150 Branta Canadensis in groups of 5-10- and up to 30. Many of the smaller groupings would indicate family ties. This was impressively brought out in the relative size of the members of the group. Observed on occasion al Pelicanus erythrorhynchos. One group of approx 65 resting on bellies upon a sandbar with heads resting upon their backs or tucked in wing. Water develop white caps. Other birds using the edge of the river among the green emergent masses and water plants were killdeers, avocets, sandpipers, blackbirds, Am. Coot and many species of duck. Except for coot & ducks the above birds were observed walking upon the surface of the masses. arrived at Vancouver July the 3rd in morning.

410708-104 7-8-41

Dropped down to edge of Columbia river S. east of the Vancouver barracks. Time sundown. Trend of Gulls in every case down river. At this same time groups of blackbirds (Brewers) flew to the edge of the river to drink. A few killdeers fed upon the sandy river shore line. Sparrow hawk and pheasant present. The river edge in this area is essentially sandy from the dredgings of the river channel. The area takes on more the appearance of a desert with sand dunes. Gulls in groups of 1-2-3-4-5. mainly in smaller groups.

7-12-41

Scenic Mt. Hood Loop. Started from Vancouver at about 7:00 A.M and returned at 8:00 P.M same day. The manner of transportation on this trip and all trips in the future will be by the somewhat newly applied hitchhiking method. During the course of a days travel will generally ride with from 4 to 5 different parties, each one of course offering his or her interpretation of the area. Followed north side of Columbia river to White Salmon, hence south across interstate bridge to Hood River City, hence south up Hood River Valley to Bennetts Pass, hence around to Government Camp, hence to Timberline lodge, hence to Portland & Vancouver. Nucifraga Columbiana at Timberline lodge. Several Citellus lateralis (sub. sp.) were found here and at different points along the way. Timberline lodge commands the attention of the tourist and Mt. Hood becomes secondary. The development of the area and the large aggregations of people inhabiting it on Sundays has, in my way of thinking defeated the real purpose of bringing the public to the attention of the natural wonder of the mountain. To me this area is at its best during winter time because it is not of the extent or caliber for the amount of effort expended in creating such a fine lodge. The snow line had receded well above the upper limits of the lodge. The mountain at this point is subdued and does not lend itself to the dramatic views gained from more distant points. Distance lends enchantment in the case of these bold towering volanic cones. Would appear to me that the deeper erosional gullies have been formed since the last ice age. Glacial erosion is observable in canyons leading down from peak. The north exposure of the mountain appeals to me and will unquestionably receive more popularity as it become more accessible. Certainly the skiing will be better on the north exposure.

Longbeach, Washington. From Vancouver via highway on north side of Columbia river to Longbeach, hence 101 to Longbeach, hence to Ilwaco, hence to megler and ferry hence to Astoria, hence to Portland via highway 30. Left Vancouver 7:00 A.M and returned 9:00 P.M. Mr. S. P. Allison of Goldendale picked me up and drove me to Longbeach where I met the family. They were spending the week end there and they invited me to lunch and then the beach. They invited me to Goldendale some week end. nice people. A Mr. Koch, who was transporting a load of Pigs to Portland gave me a ride from Astoria. Along the road on north side of Columbia between Kelso and Longbeach observed several Dendrogapus fuliginosus sierra (sp.?) that had been killed on highway by passing cars. Surprise at lack of ducks on Columbia river. Ardea herodias fannini generally distributed. Ferrying across to Astoria found the Cormorants the most common form in river. Longbeach not too impressive but represents longest beach in the world. Mr. Koch reports he has lived near Astoria since 1905 but can never recall of ever seeing or hearing about any Wolfs in this area. The Cougars, wildcat, elk, blacktail deer, beaver and black bear are present today. Many deer and elk and bear. most of the country had been logged-off before he came to America from Germany in 1905. He mentions the douglas fir, cedar, hemlock, alder, oak, maple and few spruce present. Pine not present. Many of the old stumps have been covered now with brush, and small trees. People in this country do not seem to have any foresight as to the potential supply of timber, not realizing that it will soon be gone. Cleared land to be used for dairy purposes is more valuable than timbered land so the attempt is to clear-off the timber. A common sight is to see piles of dead timber 50' wide and 40' high which has be drug from area to central tree. It is then set fire and this timbered resource is ruthlessly burned. One of the most discouraging sites is to see the complete logging of an original stand of timber. One travels for miles and miles and sees nothing but cut over land and is then impressed with the tremendously great amount of labor and energy involved in this task. To speculate as to the original picture of this land before white man entered upon the scene is entertaining. One can readily see how so many different Indian tribes could have lived here without stepping on each others toes. The vegetative growth on the coast is large in size and extent, crowded, thicks compact & dense and very coarse in texture. The underbush is almost impenetrable and

410722-106

dark in the more dense parts of the forest. The light factor would certainly be an influence in the habitat & reaction of the forest upon the animal and bird forms. To man, this vegetational set-up is almost impenetrable. Found the Thamnophis commonly patterned in highway surface.

7-22-41

Animal forms observed at Vancouver environs.

Sturnella neglecta. Frequently found feeding in small groups on parade (grass) grounds at Vancouver Barracks. Freq. heard.

Chordeiles minor hesperis (sp.?) Most common bird in both respects of sight or hearing. Always in the air and flying over city calling. After hot spell later on they became uncommon.

Polaptes cafer cafer Occ. ocasionally observed.

Nuthatch, probably Sitta canadensis (sub-sp.?)

Corvus brachyrhynchos brachyrhynchos. Common in cultivated fields.

Thrush. Occasionally heard.

~~Spizella passerina arizonae~~. Frequently observed

Warblers. (Sp.?)

Nucifraga columbiana. Some flew over hospital & flew to the south.

Hesperiphonus lewisi, Occasionally observed.

Ardea herodias fannini. Generally distributed.

Gulls. Several species and common at river

Ochrechus vaccinans vaccinans. Common in fields and along river.

Dendragapus fuliginosus sierra (sp?) Occasionally found at hospital grounds in forest to east.

Large Douglas Tree Squirrel. An overgrown Tamiasciurus. It differs from Idaho Tamiasciurus in the following respects: Explores more confidently the open situations and running more freely upon the ground without the jumping movement of our squirrel. In other words it has emancipated itself from the dependence of the conifer trees.

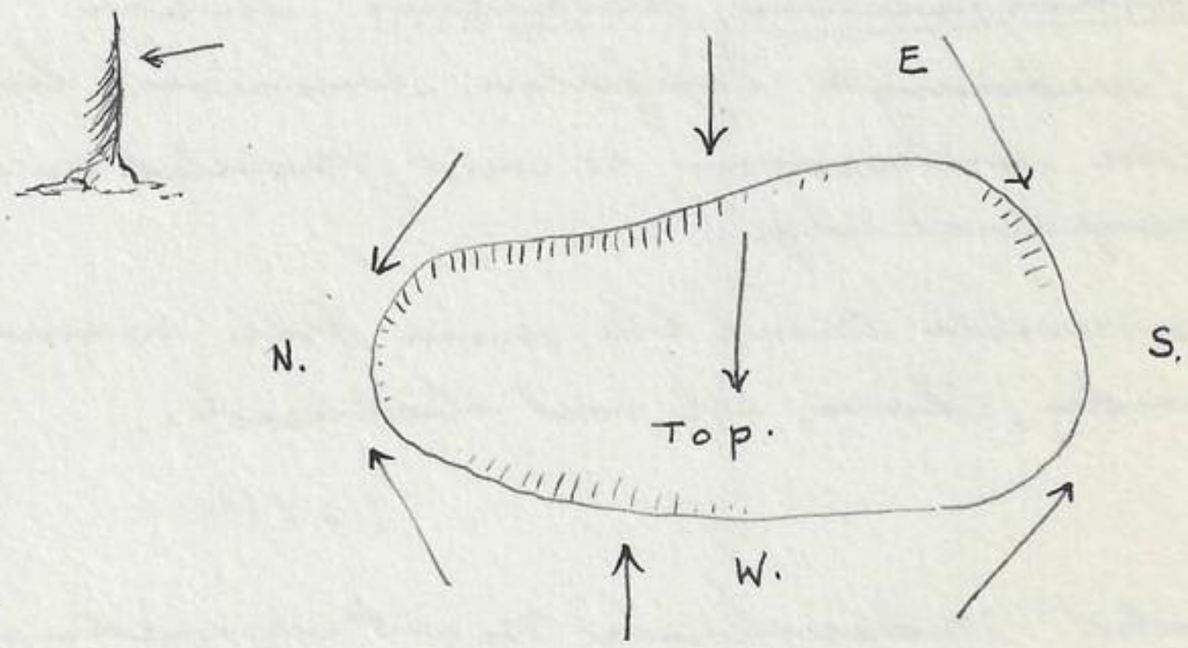
7/26/41

Following books in Portland Library:

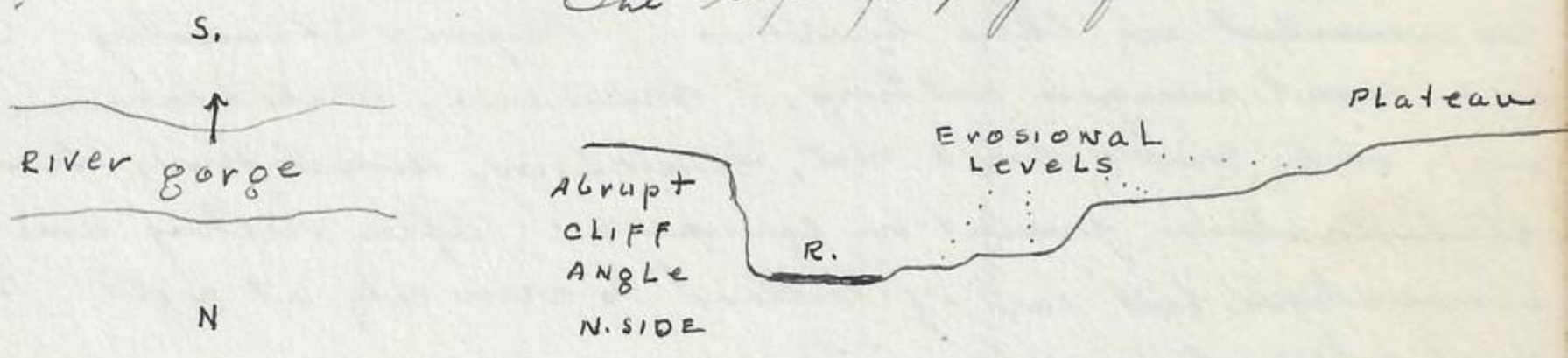
Naturalist's Guide to the Americas
Plant Ecology - Weaver and Clements
Ecological Animal Geography - Hesse, Allee, Schmidt
Laboratory & Field Ecology - Shelford
An Ecological Glossary. J. Richard Carpenter.
Bio-ecology - Clements & Shelford
Recent Mammals of Idaho - W. B. Davis

7/27/41 410727-107

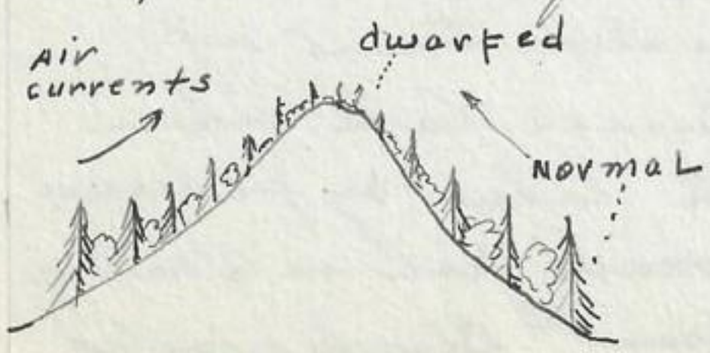
Trip to Bonneville Dam on Columbia river and return. Proceeded up gorge on north side of river and returned on Oregon side. Crossed at the Bridge of the Gods. At Beacon Rock Park ascended to top of trail. Wind effect upon trees evident. All along the Columbia Gorge one finds that the conifer trees have been feathered out on one side in command to the pressure of the Canyon winds. At first I felt that I could definitely establish the prevailing wind but later found that I again could not be too sure. The manner in which the trees were effected as I climbed the rock are of this nature.




The arrow in each case indicates the direction in which the trees are bent or stream lined. It is interesting to note that the trees on top of the rock suffer from the east winds which would indicate that possible the persistent winds are from that direction, or at least the more senier winds. The trees on brink of gorge on the south side of river seem to be effected by north winds. The topography of the river




gorge at certain points seem to conform to one of progressive lowering of channel with erosional levels to bear mute evidence to the active destruction work of nature. The wind effect upon the conifer trees along the river gorge brings up the problem as to whether dwarfed trees on mountain ridges are so dwarfed because of soil or wind conditions. It looks like wind may be a factor. It is quite evident that the size and manner in which a conifer tree develops is in ratio to amount of wind received. If that is the case, those tree found in a dwarfed condition on ridge tops are so because they receive the maximum effect from winds in both or all directions, whereas those trees and other types of vegetation further down from the ridge are normal due to the fact that they receive winds from one direction only. The birds observed on the east side



of beacon 41 0727-108 below top are as follows.
rock at about 100'
Piranga ludoviciana. Adults and + young feeding together
Junco oreganus (Sub. sp). Adult and immatures following.
Heavily striped sparrow approaching a Savannah.
Warbler with heavy and contrasting yellow and black head + body
One Eutamias. about size of ambrinus.
Cathartes aura. Few flying along river below.
Corvus brachyrhynchos brachyrhynchos. 20 along river bank below with group of gulls.
Pelecheilon albifrons. In air
Pseudotsuga taxifolia dominant tree on rock.
The succession is well presented on islands of river and along peripheral edge.

At Bonneville Dam the main fish running were. Chinook, Blueback, Silverside, chum, eel and steelhead.

7/28/41

Attended Midsummer Night Symphony in Portland

8/1/41

William James Keane and Willi Krackenburger and I visited the Portland University. Keane a former student and instructor there. He escorted us thru building of Physics Chemistry. Campus situated in a most unique setting. Madrona, Scatchbroom, Dogwood (flowering), oak, maple, hazel nut, blackberry, sword fern, bracken fern, rhododendron present on campus. After visiting university drove to observation hill east of Portland to view city at night. Keane well respected here at the university.

8/2/41

visited Portland Library and found many new books not equainted with.

8/4/41

visited Portland Library today.

8/3/41

Trip to Camas and La Camas Lake north of Camas. Jack Revenus of Camas picked me up and moved me to Camas paper plant. A Mr. John Mauritz Johansen of the State Game department of Seattle, 1320 Smith Tower, took me to La Camas Lake where he was to check the catch of bass, crappie etc taken by fishermen. Took maximum-minimum temperature. The main fish in Washington lakes are: Eastern brook, Rainbow, cutthroat, Black spotted, Steelhead, Silvers, white fish, large + small mouth bass, Perch, Crappie

410803-109

sunfish and catfish. Johnson lives at 3444 35th West Seattle. Deer Census of about 1-5 ratio of ♂ to ♀ but varies according to locality studied. He feels that hunting regulation is better than predatory control. Spends vacation at Lake Wenatchee area. On return to Vancouver he introduced me to Mr. Henderson and Supt. Ryan at fishhatchery 6 miles east of Vancouver. They have only native cutthroats. Use salmon viscera and liver as fish food. Back to Hospital at noon. In afternoon went to Vancouver Lake N.W of city and stationed myself along shore about 1 mile south of the large and main mouth of a creek that leads toward Vancouver. Observed the following:

Ardea herodias fannini. 5 of these birds generally distributed around lake shore to south. Their intervals were regular. One bird fed along shoreline in front of me for 2 hours, having moved up the shore line 300' and returned in that length of time. It called occasionally.

Phalacrocorax (sp. ?) 2 of these birds fed in water or rested on top of poles in water with partially outstretched wings

Anas platyrhynchos platyrhynchos. 2 birds only

Ducks One family with six young.

Oreyechus vociferus. Four birds

Sandpipers. Flock of 25 small sandpipers with heads and necks darker than rest of body. They were observed flying up and down the shoreline several times. One bird with injured leg. Head bird in flock generally alights first. 2 other sandpiper larger and more active fed and travelled with these birds. They held their bills nearer the water or mud surface. They were lighter and had a white area in front of wing. 2 birds about size of robin with bills 2 inches long flew by. They could have been Wilson Snipe.

Swallows. In air continually.

Bombycilla cedorum. Flock of 10 birds flew by and circled once or twice before alighting.

Corvus b. brachyrhynchos. 5 birds feeding along shoreline. They would push over grass stems and then by holding them with their feet would pick off the insects. Could not see insects so would presume they were very small. Their holding act was very clever.

Larus Two forms with their immatures.

Vancouver lake a remnant of old river course with typical willow growths and grasses along shoreline.

410817-110 8/17/41

mt. Adams trip, Oregon. Spent 7 hours on mt. Proper. Approached via Underwood, White salmon river, Trout lake, Gotchen Cr. Ranger Station, Mirror Lake to Bench Lake, circumnavigated Bench lake, hence up Hell Roaring river canyon to glacial cirque at conspicuous falls, hence south up side of canyon to Hell Roaring Ridge trail, hence down ridge to pass leading down to Bench lake, hence down regular road to Gatchner Ranger Station. On way up met Mr. J.A. Jaekel of Wishram, Washington. He herds and own sheep in this area around Adams and has been in area for 30 years. He states that 30 years ago in the area between the Gotchen Ranger Station and mountain was relatively free of underbrush and shrubbery but now the area is being crowded with brush with an entirely new and crowded covering of small Conifer trees. This area is a typical Ponderosa stand. He accounts for this condition as being a natural one and due entirely to a change in climatic conditions. He knows of areas where sheep have been grazed and this new ecological change has not be effected. One can readily see, however that the sheep have unquestionally altered the area to some degree. This Ponderosa belt is most unique. Few aspen trees present but not in pure stands. Discovered fresh bear droppings and few deer tracks in Hell Roaring Canyon below cirque. Pika present. Met several members of the Mazama mountaineering Club making their descent from the top of Adams. Returned to Vancouver with a Mr. Shaenfeldt of the Portland Forest Service. Of the several areas visited so far I think that Mt. Adams has impressed me as being more primitive. Salamanders. (orange) Common around Bench lake.

8/30/41

Three day trips to Mt. Rainier. Left Vancouver 12:00 AM, hence Tacoma, hence Elbe, hence Longmire arriving there at 10:30 P.M. Enroute to Tacoma met an old timer in the lumber business. He informs me that the bark on cedar trees indicate condition of wood inside. If they are brown and coarse they are nourished from the outside layer of wood and bark and the tree is solid but if the bark is yellow and fine it is being naurished from dead and punky wood inside of tree. The country north of Vancouver is hilly and irregular but area south of Olympia is level. One characteristic feature of the landscape south of Olympia is the knolled topography of the flats. The average individual knolls are about 20 feet or so in diameter and 10' high. They completely dot the landscape, reminding one of old and ancient indian burial mounds. They are pribably formations from glacial ice age period. From the entrance to Rainier park walked

practically all the way to Longmire. To walk thru this dense forest of Cedars at night with just a skyline above is most fascinating. Was picked up by one of the old and notable mining prospectors still remaining inside of the park. Remained first night at cabin in Longmire. Raccon hunt garbage pails like bear in yellowstone.

8/31/41 (Cont.)

Rained frequently last nite. Looks better today. From Longmire followed main road to Narada falls. Observed following birds along way:

Penthestis (Sp.) Most common bird found. In groups at edge of road. They hunted all areas of Conifer trees.

Corvus corax sinuatus. 2 at end of Nisqually glacier. One flew among dense stand of Cedar, douglas fir and hemlock. Their presence and navigation among these forests seemed out of place. May have been attracted to the glacier to feed among the debris.

Nucifraga Columbiana. Only 2 birds.

Perisoreus obscurus obscurus 2 birds

Myadestes townsendi. Family of 5 birds.

Ochotona. In practically every rock slide along the way. Many of them inhabiting the artificial slide produced as a result of man road making endevors.

Eutamias. Most common animal observed. Mainly along side of road but in dense forest areas as well. This highway has produced a forest fringe which is enjoyed by animal and bird forms. The remarkable feature of this set-up is the apparent total lack of animal mortality by passing automobiles.

Cyanocitta stelleri stelleri. Mainly around centers of population as at Longmire.

Sitta Carolinensis. Commonly heard.

Tamiasciurus. Frequently observed and heard.

Dryobates pubescens harrisi. Heard occasionally.

Dendroica aestiva (?)

Buteo borealis calurus. 1 bird

Accipiter atricapillus striatulus 1 bird.

At Narada Falls found a rather unfortunate situation. In the first place such a fall is a scenic beauty spot and it should not only tell the story of its present existence but the story of its past. But man has now built a road and constructed several building at the point where the falls has issued in the distant past. Also noticed that considerable man made timber has collected at the base of the falls. Such a picture is all but disheartening.

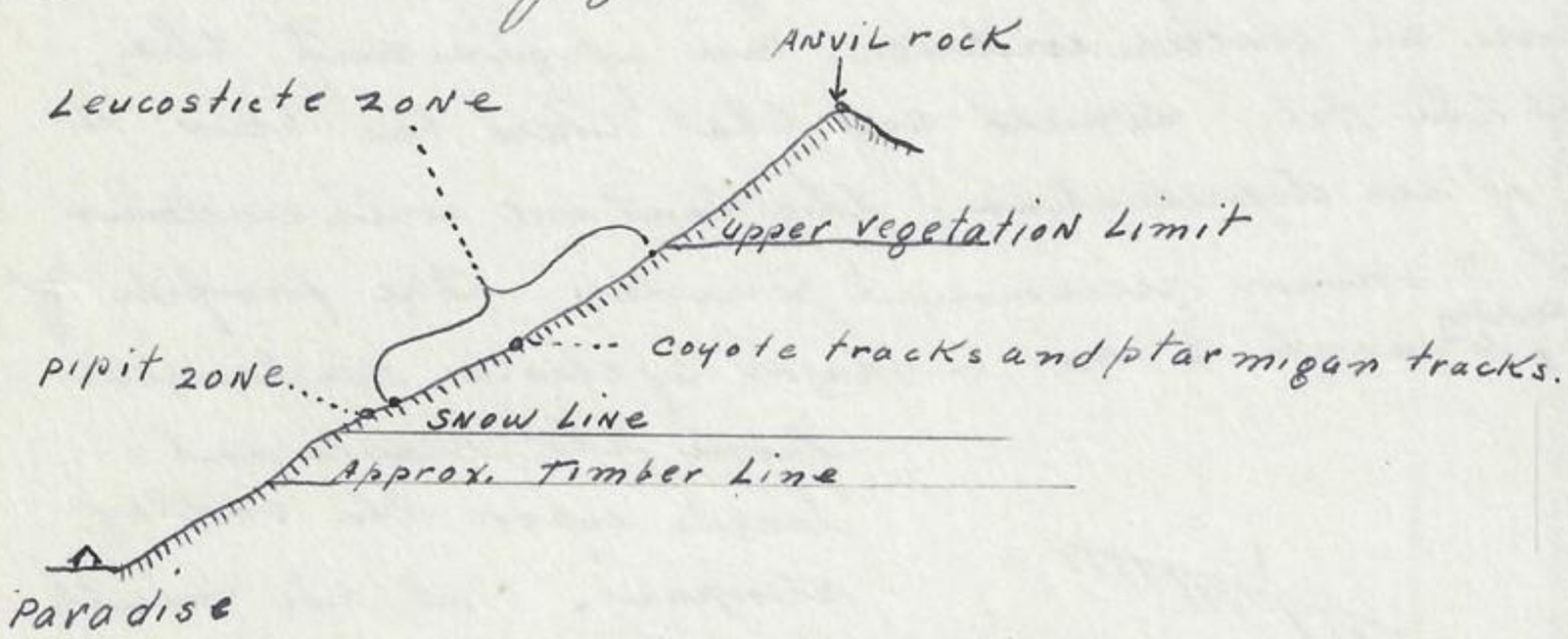
410831-112

At the Christine Falls the bridge is a notable architectural structure but its position is deplorable, intercepting the full natural view of those beautiful falls. Arrived at Paradise Valley at 12:30 P.M. Have noticed one peculiarity along the way. It is the superficial layer of light colored earth superimposed upon an already existing topography as if it represented the debris from an eruption of the mountain. More noticeable as one nears Paradise Valley. At the Lodge arranged for sleeping bag and pack and headed for Anvil rock, arriving there at 3:30 P.M. Paul Macy was stationed there as fire observer. Paul is the son of Supt. Preston Macy of the Olympic National Park. The Macy family lived at Longmire for many years where Mr. Macy was Supt. of Rainier Natl Park. The last mile or less was travelled in a raging snow blizzard covering tracks with drifting snow in 15 minutes. Before the storm closed in had oriented myself in respect to Anvil rock Station but as soon as storm hit, was totally destitute of landmarks. Being inadequately clothed and travelling by instinct was indeed fortunate in gain my destination without ~~being~~ becoming lost or suffering from casualty of the winter blast. All wind swept rocks exposed were coated with solid ice. The ice formation presenting a concentric ringed arrangement. Snow field ~~not too~~ stable to foot. Absolutely no evidence of wild life and most dramatically impressed with natures ability to adjust those animal forms to such a torturous environment. Wind and blizzard continued all afternoon and nite. Paul surprise to see human being walk into cabin, a man more like a snow man than a human being. The cabin is situated on a vantage peak with an abrupt drop on north side and long steep ridges & snow fields leading up to it from the S.E. and south. Head of Nisqually glacier and ice falls to West and south. One can consider himself on the brink of the upper shoulders of Rainier. The cabin was iceled and snow blasted with environs typically wintery in every respect. That evening and nite developed an intimate friendship with Paul and as we had many ideals and thoughts in common were able to discuss problems until time for bed. With the blizzard raging outside and temperature below freezing and perched on top of nowhere, can say that the feeling of warmth and comfort of this cabin with a new friendship developing, was a sensation never experience before. The cabin was of the observation type with glass windows on 3 sides. As the ice soon formed ~~visibility~~ was impossible. Room heated with gas from tanks. Food neatly arranged and every article in proper place. Paul mastery of cooking and his domestic ability very evident. Being alone all summer he would naturally turn to the use of the radio for comfort and amusement with

noticeable result that he was thoroughly → acquainted with every → station and personalities of the radio programs. Chairs insulated with non-conductor supports. Paul told me that a week or two previous he had observed a Eutamias around cabin and that it had been a regular guest up to the time a weasel made itself known, after which the Eutamias disappeared. Could the weasel have ferreted out the Eutamias and killed it or had it been driven on to a more hospitable area. Next morning this weasel was observed in snow at front door of cabin. Rather tame to approach. Paul also informs me that during the same season the ptarmigan are white at higher elevations, indicating their limited latural migration and favoring rather limited territorial areas.

9/1/41 (cont.)

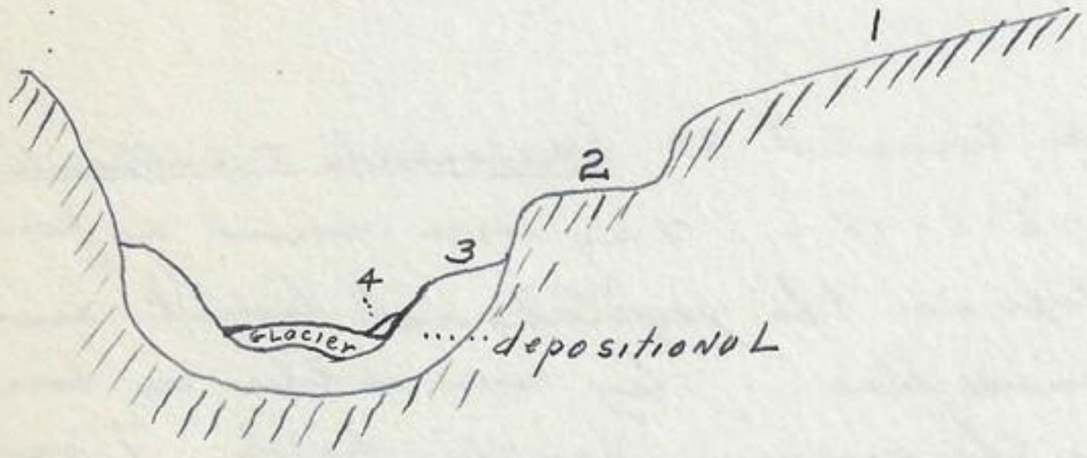
up at sunrise with window clearing in sky just long enough to see to distant east and Rainier to west. Rainier crest and upper Nisqually glacier in about as cold and delicate nature as I will probably ever see. Last night several ice mass came way at ice falls. As soon as the clouds closed in again the wind and wet driving snow started. Return trip made in a hazy, wet mist as I descended below the snowing zone.




On return trip counted 80 Leucosticti t. littoralis in groups of 1-5-8-15. They were found as far up the mt. slope as the vegitational limit and down slope to about lower end of snow line. They were either on bare rock exposures or grassy spots among the moraine boulder fields. Those resting on rocks were cold looking, wet and definitely concerned about their plumage. One can approach to with 10'-15' feet before they are forced to leave. One bird flew like a bat or wounded or starved bird. They frequently chase one another for 50 or so feet. Their method of movement is similar to horned larks in that the last birds or group fly ahead to reestablish a new front in the progressive movement. The pipit appeared to be below the Leucosticte but still in snow zone. Only a few of these birds. Ptarmigan feathers at tree line above timberline zone at Paradise Lodge. Arrived at Paradise Lodge at 10:30 A.M. being only 3 hours on the trail from anvil rock. At the Paradise Valley area

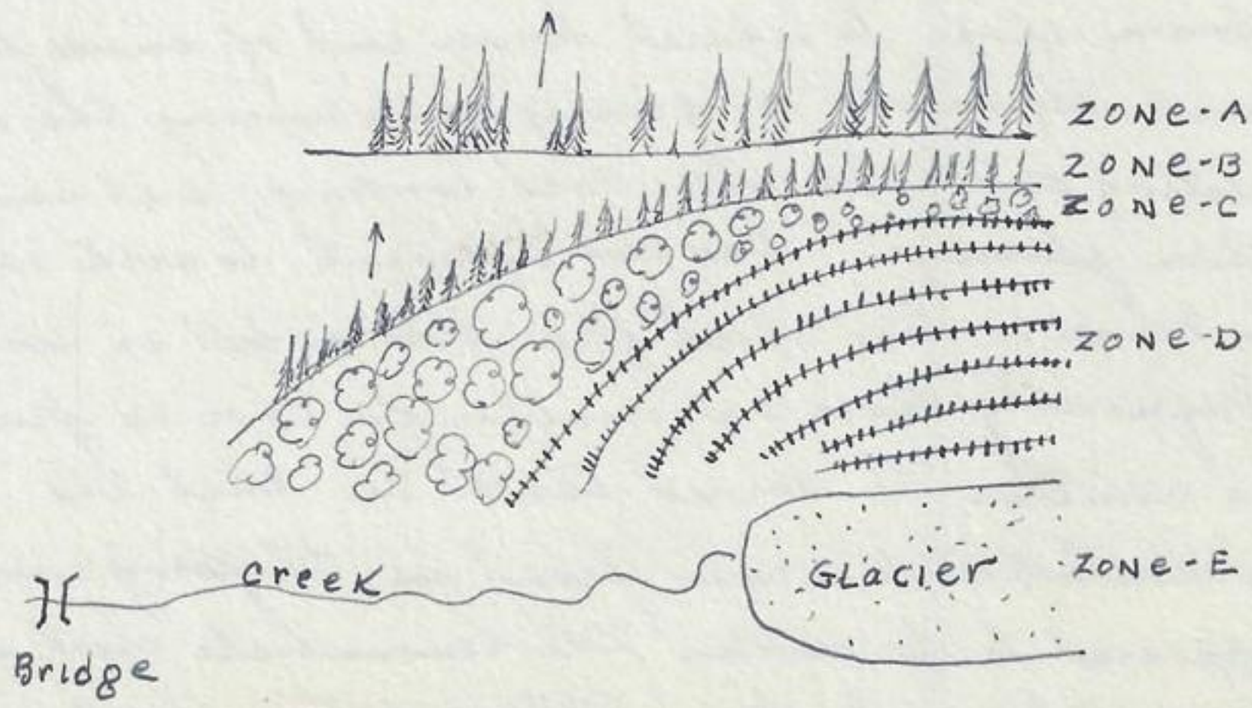
410901-114

was faced with some human-nature contact problems. Found that the beautiful meadows and grassy slopes were being cut to pieces with anramification of trails destroying the natural beauty of the area. The natural moranic slopes, being rather loose is structure and surface texture were being changed by the hundred of feet that used them for play slopes and travel. Certainly the beauty is already destrayed and why should it go on to the stage where it becomes a veritable grade school playground. The significance of visiting this area is already destroyed. Another objection would be the encouragement of creating a semi-domesticated form out of such wild life species as the Clark Crow, Marmot, Citellus lateralis and Odocoelens. Reminded me of entering a zoo or barn yard with all the natural alertness of these animals replaced with a docile mannered creature. Their natural contact and existence in nature is not afforded them and the site is not the primitive picture which the park was originally created for. Incidently to ask a Clark Crow to perch upon any type of object allows for an exceptional opportunity for photographing this bird. From a cousual glance at glacier evidence can figure out the recessional cycles of the Mt. Would say that there has been 4 major glacial periods of ice depreciation, the last one with evidence of being divided into 7 minor recessional periods. The profile of the Nisqually glacier valley presents to me 4 major cycles as evidenced from the erosional levels upon the valley slopes. At the mouth of Nisqually glacier recorded the picture as con-




profile

cerned the cyclic recession of the glacier terminal. The Zone A is marked valley-ward by a sharp demarkation with mature trees on one hand and approx. 40 year old trees on the other side of the contact zone. Zone B is characterized by Conifer trees




areal view

approximating the 40 year age. This zone is 410901-115 homogeneous and is bordered by zone C which is of a zone of brush or shrub of a homogeneous nature. The contact line between zone B and C is abrupt and distinct. The zone D is unquestionably of a recent nature and is provided with 7 minor recessional moraines leading progressively down the slope from C-D contact to edge of present glacier. Zone E is present glacier which could be considered a part of zone D. Zone D is traceable higher on glacier where glacier proper is lined in a parallel fashion with a series of moraines, each moraine of a different color material. From evidence gained am impressed with the fact that one does not have to allow great periods of time in allowing for the disappearance of ice from our last glacial epoch. At lodge observed about 80 Junco oregonus and 20 Turdus m p feeding on a flower patch at Paradise Valley. Have noticed a general robin migration. From Lodge follow old trail to Longmire. Along way observed a different vegetational underbrush construction but could not explain difference. Enroute saw one Sorex, 2 Watersnakes. Fungi present from Longmire to high as timber reaches on mountain but differs as to intensity and distribution on individual trees. Deer follow regular trails. Conifer needles in trail collect in such a fashion during a rain storm that hundreds of small reservoirs are formed, impounding a considerable amount of water when taken over a wide area. Found that to pick up a moving object one must stop, otherwise the relative degree of movement of the trees interfer with perceptions. Also one can best pick out an object by relaxing muscles of the eye until object is located and then drawing a sharp focus after. Did not see any evidence of bear on trip but recalls Pauls mention of bear trouble at Longmire when he lived there. Near Longmire found frog in trail and at one point the ground was covered with large nesp Abies concolor cones which had been unquestionable placed there by Tamiasciurus as this squirrel was no doubt present because of the other signs of cone piles etc. present. Could not positively prove that the cones were chewed off but things look suspicious. One of the great problems of the park is the plant succession along the sides of the road. Regardless of the type of area the road passes thru, the same brushy wall blocks out the true nature of the other forest or plant type. Left Longmire and Rainier Nat'l Park and after several rides a Mr. Atwood of Portland picked me up and took me straight into Vancouver. From Elbe took highway south and regained main road

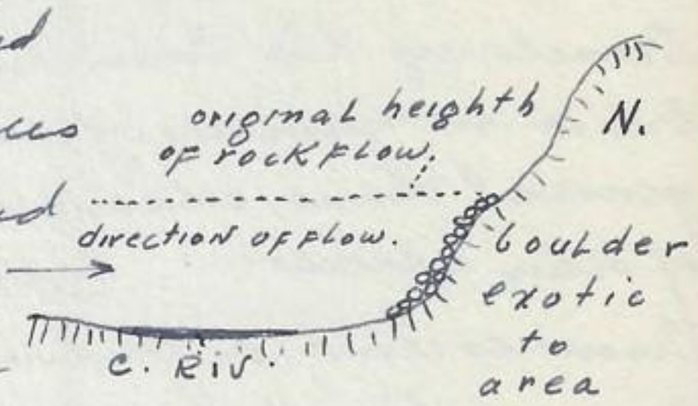
410901-116

at Marys Corner. Mr. Atwood relates the following. Deer dig down to ground thru snow when it is not going to snow again while deer that sleep on snow indicate that snow will fallow in 24 hours or so. This applies to N.W. Coast. His business was gathering sward ferns and had several men working under him. He claims that these sward ferns do not grow under pine trees and that if one follows the weather conditions in the N.W. he can be assured of a better type and quality fern by evading those areas which have suffered sevier storms etc. These fern are used for burial purposes. Told me that a large Ardea heradias fannini colony nested in a second growth fir tree patch seven miles down river from mayfield Washington. The colony consisted of about 500 birds and was several miles from any water. These birds returned to this site regularly. Nests in the dead tree tops of this fir group.

9/7/41

Trip to Mary Hill and Celilo falls. The dominant and more evident fact brought out on this particular trip was the presence of an abrupt change zone from the more desert, dry conditions of the east slope of the Cascades and the more typical rain forests of the western slope of the Cascade. Would place this transitional zone at about white Salmon. The vegetational aspect as well as the animal aspect has its dividing point at White Salmon, also topographical change which is an unfavorable feature because of its part in accounting for the change. Along with these more evident physical difference is a change of personal feeling and reaction to the areas under consideration. At Vancouver the days are cloudless, generally cold, damp and lifeless while at white Salmon and east to Celilo Falls one finds a change to clear skies, warm and radiant sunshine. In other words it is the feeling one longs for after one remains at Vancouver during the course of a week under dull dreary days. The sunshine at least has an invigorating and stimulating feeling to the physiology of the body. From the Artemesia, rabbitbrush, greasewood flats of middle Washington the types of vegetation change to the west in this order. Artemesia, long grass, short mat grass, rabbitbrush, oak, Ponderosa pine, fir and maple and then typical stands of fir. The most noticeable difference between the area around White Salmon and Celilo Falls in contrast to the area to the west is the lack of trees of any type and a replacement of short dry grass and broad open sidehill exposures. Another noticeable feature is the abrupt appearance of

the rock squirrel, lizards and grasshoppers at White Salmon, pushing in, of course from the dryer areas of the east area. Certainly this area around White Salmon would be an interesting area to collect to establish gradational forms. At point directly north from the mouth of Hood River found an occumulation of large boulders on the hillside several hundred feet high indicating that at one time glacial(?) forces dammed the Columbia river at this point and since then the river have eroded the present channel thru this debris but has left the residual boulders intacta on the mountain side. Certain erosional levels and elevated shoreline up Columbia river bear out the existence of such a river block at one time in the past. The strata resistent levels are the more conspicuous feature of the canyon walls but if one looks carefully he will find elevated shoreline high on canyon walls, particularly on north side just down canyon from the Dalles. At Celilo falls find the river channels to conform to fracture pattern of rock. Some channels flow in straight course. Beautiful boulder (river worn) accumulation directly below falls area due to increase carry capacity of waters. Indians fishing in more modern way with platforms, nets, trolley cars etc. About 40 Indians were catching on the average a fish per 35 seconds. Salmon weighing 45-50 lbs and 45" long. Significance of seeing this manner of fishing insignificant compared to what it could be if they had to resort to fishing with spears or simple net traps. If the old custom could be reestablished it would be one of the tourist attractions of the N. West. Bird life congregated above falls and represented Gulls, brewer blackbirds, G. Blue Heron and R. breasted Merganser. Fewer ducks on river as compared to area at Weiser along Snake river. Near Bonneville Dam observed flocks of Band-tail Pigeon averaging 30 birds. One flock of 40 birds. These pigeon look more like a grouse than a pigeon when in tree to one who has only had the opportunity of observing the normal size mourning dove.




9/14/41

Trip to Yakima and return via north side Columbia river to Maryhill, hence to Goldendale, hence to Yakima. Left Vancouver 7:00 A.M arrived Yakima 12:00 A.M, left 1:00 P.M arrived Vancouver 8:30 P.M. 400 mile round trip. Mary Lou Evans at Hospital as Laboratory Technician having been there 2 weeks. Day threatening with occasional rains. Strong winds in Yakima country. Flock of

approx. 410914-118 Bombycilla Cedrorum in tree at Camas. Due to
some unknown cause they dispersed in all directions
as if motivated by a single impulse. Cause unknown.

They left tree in a fast downward dive. An emphasized
call was given simultaneously with dispersion. They
reassembled except a few that continued to fly to the west. As one
travels up the Columbia river from Vancouver he finds a gradual in-
crease in numbers of these birds and in their flocking tendencies. In
general have observed an increase in frequency of migrating birds
of other species. Cathartes aura septentrionalis near Beacon Rock.
Crows evident in Yakima in small groups. One flock of 40 birds. At
Camas found a south migration of Choetura vauxi (?) at about
150' high and the width of Camas City. They called frequently. Their
speed is not exactly like White throated Swift. Met Rock Squirrel
again for first appearance at White Salmon. Buck blacktail deer
at Duncan Cr. west of Bonneville dam. Forests between Goldendale
and Yakima of Ponderosa Pine and Douglas Fir. Few aspen,
cottonwood and willow along river and creek courses. Manzanita
occasionally under Ponderosa Pine, as similar association as is
found in southern Utah. Grass dormant and plays important role.
Valley of Yakima broad and flat. River meanders and passes thru
V cut ridges gorges. Met one man who claimed that the second
year Pseudotsuga mucronata can be diferentiated from the second
year tree of the same species that is found in the Cascades. Sands
increase as one travels east of White Salmon. When one get off to
one side or rather of the Columbia River Gorge he does not realize that
a deep canyon exists. An old logger working in area between
Mt. Adams and Mt. St. Helens claims that there are only six grizzly
bears left in that area. Season early with pear picking 1 week
early. Everyone seems to predict an early fall and winter.

9/16/41

Norman R. Rochester of Vancouver reports that this is the first year
that his fatherinlaw has ever been troubled with super-saturated
sails in his orchard.

9/17/41

This evening made my acquaintence with a young fellow, a Nelson
Vaughan, who is destined to be a first class ornithologist and
naturalist. His keeness for details, ability to realize and re-
tain visual pattern, as well as his likeable personality will allow
him to progress beyond the ordinary in field work and research.
Nelson, preferring to be called Nellie, lives at P.O. Box 208 - 2705
Q Street, Vancouver, Wash.

9/21/41

Mt. Hood Trip. Same course as of 7-12-41 but stopped at Cooper Spur and then returned. Left Vancouver in morning in dense fog but soon in clear blue sky as I progressed up Columbia river. This situation is the general rule. Fog at Vancouver; clear sky at White Salmon. Sometimes one leave fog at Camas. Am wondering if this fog could be invading this area via Columbia river from ocean and stops when encountering cooler zones of Columbia river gorge or from down canyon winds from the east. Birds observed along the way are:

Military reservation.

Lonia curvirostra (Sp.?)
Colaptes cafer cafer
Dryobates pubescens gairdneri
Corvus brachyrhynchos b.
Turdus m. propinquus or caurina
Sturnella neglecta
Tamiasciurus
Phasianus colchicus torquatus.

These birds seemed to be unusual gay and call with a great amount of energy.

Vancouver to Camas. 8:20 A.M.

Passer domesticus
Zenaidura macroura marginella
Turdus migratorius caurina - migratory mood & common.
Junco oreganus oreganus and probably shufeldti.
Otiyechus vociferous vociferus
Megaceryle alcyon caurina.

Camas to White Salmon 10:45 A.M.

Melospiza melodia morphna
Columba fasciata fasciata
Cyanocitta stelleri stelleri - 5 in one group.
Asydesmus lewisi.
Larus
Ardea herodias fannini (Sub. sp.?)
Ducks.

Hood River up Hood River Valley to Cooper Spur.

Heard what I would recognize as the drumming of the Dusky Grouse but is probably Dendragapus fuliginosus sierra. It drummed several times about 12:00 A.M.
Penthestes and Sitta canadensis traveling in same group.
Duplications of above birds in each grouping of areas.

9/22/41

First clear warm day after about 2 weeks of rainy dull weather. Maple seeds fell last nite in unusual abundance, more so than at any time in the last two weeks. when they first started to fly. The warm day may have been responsible. There is a noticeable change in seasonal aspection. As I swept the solarium porch over day

410922-120

was in a position to realize the changes of maple seeds numbers from day to day.

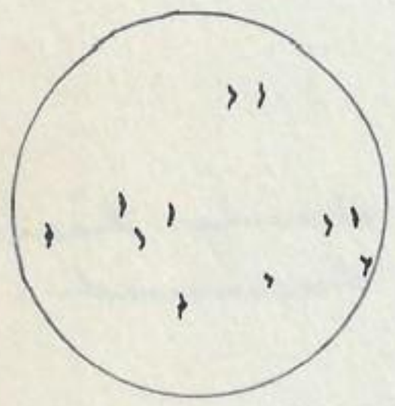
9/27/41

Cannon Beach Trip. Two day. As guest of Mr and 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 P.M. 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 mammal forms observed from Cannon beach north to Indian beach.

<u>Puffinus griseus</u>. 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 2½ block 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 block 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

count of 220 birds passing per minute. → would estimate → average per entire day as 150 which for the given hour period would represent 63,000 individuals in the northward migration. At no time did I observe it to alight upon the water surface. They flew miraculously close to the water with their wings nearly touching the water. Occasionally the bird reflection in the water would touch the bird itself. At times they would disappear from view as they follow wave troughs. Just why these birds fly north in the morning and south in the afternoon, am totally last to explain. The phenomena was of such magnitude that it held my interest the entire day.

Puffinus creatopus. (?) An occasional whitin bellied bird was observed which could have been this species.

Histrionicus histrionicus pacificus: Several of these ducks fed in one general area in combinations of 3♂ and 1♀. They were associated with the Scaters, red-throated loon, one cormorant and one murrelet. at the zone where waves were just breaking. A most conspicuous form.

Melanitta deglandi. Of the three Scoters present the Surf Scoter was the most common form, the white wing second and the American third. Their idenity is easily accounted for if the birds are in close range. They all fed together but generally kept species groupings. Fed in pairs, singularly or in groups of 4-5-6. The most common place found was just before the breakers cap and the first few yards after wave brake and before they reached too great an intensity. As a breaker would approach they would automatically evade it by diving underneather the crest and make reentrance again on other side. Those wave crest that were not capped they would ride over. Occasionally a capped wave would catch them unaware and a certain degree of confusion would result. Their ability to predict the point a breaker would cap was better than my aptitude in predictions. When viewed from a high cliff the birds were seen to be floating about with legs stretched outward as if it might be most comfortable position. Some of the scaters were observed to be resting with heads tucked among the feathers of the back.

Melanitta perspicillata. see above under deglandi.

Oidemia americana - see above under deglandi.

Mergus merganser americana. Occasional bird flying or feeding in pairs.

Haematopus bachmanni. At about 8:45 A.M 2 oystercatchers flew past from the north in an irregular flight much like a willet, and lit on rock near group of Black Turnstones. They have a striking pattern and manner of flight with a call that is harassing and diagnostic. Dynamic and active bird indeed.

Arenaria melanocephala. Twenty two of these birds

410928-122

were found in one flock on a barnacle covered rock where waves washed upon the surface and occasionally sprayed over the top and driving birds on to lee side. They did not seem to mind the water bath. They seemed to be resting but a few were picking insects of the boulder. The most noticeable thing was the confiding nature toward man, allowing us to approach within 15' of them. Found a few other single and paired birds along the beach during the rest of the day.

Heteroscelus incanus. Two birds of doubtful identity. One found early in morning running along beach sands from one undercut canon to another and another one found in afternoon feeding upon water sprayed barnacle boulders at Indian beach.

Larus occidentalis occidentalis.

Larus argentatus smithsonianus. This one alone both present.

Larus heermanni. Doubtful identification.

Brachyramphus marmoratus. (?) 1 bird a murrelet but questionable as to species.

Cepphus columba (?) Could be either this form or Calif murre

Colaptes cafer cafer. Occasionally heard and observed on brink of cliffs and edge of Sitka forest.

Dryobates pubescens gairdneri. Occasionally heard.

Phalacrocorax auritus (Sub. sp. ?). Not uncommon.

Ardea herodias fannini. Few.

Junco oreganus shufeldti. Could be oreganus sub. sp.

Melospiza melodia morphna. Common.

Passerella iliaca fuliginosa 1 doubtful record.

Turdus migratorius caurina. Few.

Thryomanes bewicki calophonus Common.

Pipilo maculatus curlatus.

Megaceryle alcyon caurina One bird remained in some general area resting upon the ledges of the cliffs. It was observed hovering over salt water but was never seen to make dive.

Regulus satrapa olivaceus. Common in Sitka Forest.

Cyanocitta stelleri stelleri. Few around centers of human congregation.

Eutamias (sp. ?)

Blacktail deer. Tracks common and tame animals.

Roosevelt Elk. 18 feeding on lawn at Ecola Park.

Thomomys

Rana pretiosa
Small green tree frog
Cottontail
Sitka Spruce
Salal
Salmon berry
Mt. Beaver.

The mountain beaver a common form on upper slopes of cliffs between brink and Sitka forests. On mainland noticed that the rankest and best Sword fern growth was associated with the old established Sitka trees. The aquatic sea life along beach as usual with barnacles, starfish, etc. Left Cannon beach in afternoon and arrived at Vancouver same evening.

10/4/41

Trip along Columbia river edge from point south of Vancouver barracks to point some mile up river. Left at 3:00 P.M from Barnes General Hospital and returned about 8:00 P.M. Observed the following:

In conifers east of Hospital found:
Cyanocitta stelleri stelleri
Red sides Thamnophis (probably parietalis)
Microtus ruinvayi
Junco oreganus
Sitta carolinensis
Pipilo maculatus oreganus
Thryomanes bewickii calophonus
Melospiza melodia morphna
Colaptes cafer cafer

Along river observed:
Sturnella neglecta
Turdus migratorius caurina
Zenaidura macroura marginella
Phalacrocorax auritus (sub-sp. ?)
Arquatus pubescens gardneri
Oxyechus vociferus vociferus
Penthestes atricapillus occidentalis
Dendroica auduboni auduboni
Anthus spinoletta. Confining themselves to peripheral edge of bays and particularly the ponds that are formed as a result of decrease in size of the river with change of precipitation.
Mareca americana
Ardea herodias fannini.
Corvus b. brachyrhynchos 6 8.
Pandion haliaetus carolinensis. One hovered & flew south east across river to again hover on opposite side.

411004-124

Larus flying invariable down stream.
Bat about 7" wingspread started flying shortly after sundown.

Phasianus colchicus torquatus.

Nellie Vaughan reports 553 Branta nigricans passing over Sauvius Island. They were flying up the Willamette Valley.

10/5/41

Wind River trip. Government Mineral spring, Observation Point, Berry meadow Camp and Observation Point to the north. At 7:00 AM left the Barnes General Hospital and found the following birds in conifer forest east of the reservation.

Phasianus colchicus torquatus 12
Dendragapus fuliginosus sierra 2
Sitta carolinensis.
Dryobates pilleatus harrisi
Junco oreganus
Turdus migratorius caurina
Corvus b. brachyrhynchos
Sturnella neglecta
Passer domesticus
One unknown.

Arrived at wind river bridge at 9:40 A.M. This bridge is a high suspension bridge 235 feet high. Interesting river gorge below. Birds in this area are:

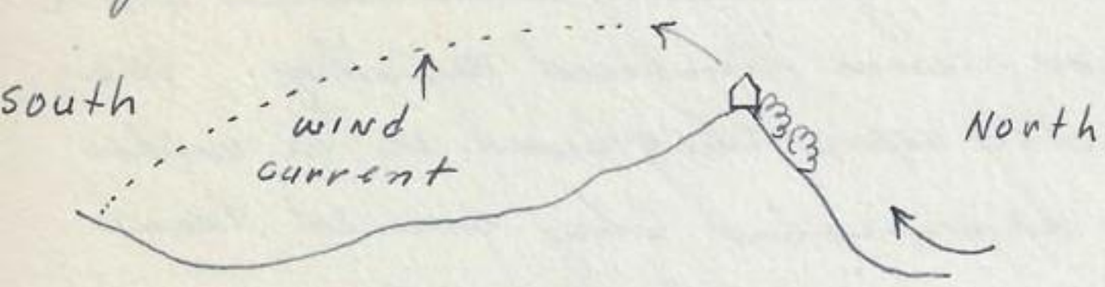
Turdus migratorius caurina
Junco oreganus
Colaptes cafer cafer
Cyanocitta stelleri.
Melospiza melodia.
Sealia mexicana 20
Tamiasciurus douglasi
Nucifraga columbiana
Corvus b. brachyrhynchos
Cutamias.
Thamnophis parietalis.

Arrived at Forestry Experimental area at 11:30 A.M.
11:40 A.M. Iron mike at Government Mineral Springs. Left on trail at about 11:45 A.M for observation point. The trail leads thru original Douglas Fir, Cedar and hemlock. Trail with dry conifer needles making going easy a soft as if walking on Persian rug. Beautiful area with subdue lights and easy grade. It was upon this trip that I perceived of the stimulating effects from these eloquent forest lights. They are of

such a nature that they cannot be described. Every thing appears so restful. In places the colored Maple leaves covered the trail to depth of 4 or 5 inches with leave 1 foot in diameter. Shortly after leaving on trail found for the first time the Varied Thrush Ixoreus naevius naevius. Found later as trip progressed that they were relatively common and generally distributed along the entire route. They were more generally associated with water. All birds found in this more dense timbered country. Was surprised to find them predommantly upon the ground or in under brush at base of large trees. When approached they would leave the entangled brush and shrubbery and would gain the upper branches of the taller trees only after a good deal of fumbling and hitting of branches with their wings. In this respect they did not belong here but their shy disposition and elusiveness placed them with the thrush in belonging to the deep dense forests. They look like a robin as far as size and general color but when on a limb will try to place it between itself and the intruder. In some respects they act like a flicker in inspection from one position and then turning around and inspecting from another angle. They seem to scrutinize with same degree of intelligence. Their call is like the warning call of a Junco but subdue in intensity. Once they gain the upper branches of Conifer trees they assume a certain degree of confidence. Their actions seem to be between the true thrush and the open enhabiting robin. Saw in all approx 60 Varied thrush in groups of 4-6-8-12 and 15. They kept in compact groups. Few winter wrens. In general the bird life was scarce with an occasional flock of Penthestes and Sitta carolinense grouped together and then a period where forest was quite and dull and lifeless. At 12:25 found a Accipiter cooperi rather confiding to my presence. It was fearless at 20' and as I walk by and beyond it did an unusual thing by following along after me. It called like a swallow. I have never observed such action from a cooper hawk. It was associated with Sitta carolinense, Penthestes and Tamiasciurus near a small spring. The squirrel called continuously for 25 seconds without stopping to take a breath. At 4 mi post flushed 2 Dendragapus fuliginosus sierra Occasional Hylocichla ustulata. 1:05 P.M at 3 mi post found a group of 8 and 12 Varied thrush at about 200' separation. Some Varied thrush eating seeds of dogwood. Continued on up trail to ridge below Observation Tower and hence over to Berry Camp arriving at 2:20 P.M. 4 Dendragapus f. sierra on ridge. Only evidence of Canis lestis was in more open trails on ridges where their droppings were frequently found. Eutamias in dense timber but unusual.

411005-126

They favored the more open country on ridges. Left Berry Camp at 2:25 P.M and trended N.W. to Observation tower arriving at 3:00 P.M. Open sky meadows here. Buteo borealis calurus and Myodestes townsendi at cabin. Wind from north would carry a small piece of paper up into air currents and finally drop some 3 blocks away.




Tower North West of Berry Camp.

The up draft from north side would carry paper directly up from peak and when it would reach a certain elevation a strong ~~south~~ north blowing wind would grab it up and carry it south some 3 blocks. At this point observed the case of exposure overpowering wind resistence. Vegetation growing on windy north exposure while south exposures free of wind held no vegetation. Left North Peak at 3:55 P.M Gophers active in open fields. Gained first Observation peak at 4:35 P.M. ascended east side of peak to ridge trail hence down regular trail again to Government Mineral springs arriving at 6:00 P.M. One Columba fasciata fasciata in tree at 5:20 P.M on return trip also one Buteo borealis calurus at same area. Bat flying at 5:30 and of medium size, fly in dense timbered area yellow maple leaves give one the impression that the sun is shining even after sun has set in the west. Lights as alive as any organism No evidence of deer except on ridge and east exposure of the first Observation Peak. White fir at higher elevations. Prefer water from mineral springs to root beer. This water is used extensively by many people who carry it away in jugs full.

10/12/41

Trip to Bingen Mt east of White Salmon. Started up mountain from Bingen passing City letter on mt side hence to top. There were several interesting observation made besides those enchanting views of the river gorge below. Among the more interesting one were the predominance of Dung-beetles distributed every few feet apart. The entire south hillside exposure supported this beetles. One was not without seeing these beetles at every step. Another interesting observation was the congregation of Citellus (?) holes occupying every avail inch of the mountain side with runways and holes in every direction. Holes about size of Citellus armatus or larger. No bird life on ascent on south gorge side except on top. This trip make an ideal one for just wondering about with views of the

411012-127

of the Columbia river and gorge wherever at any direction works to look. Mt. Hood to south looms up at the upper end of the Hood River valley. Mt. Adams to north. On top of mountain was surprised to find a finaly living and forming the flat upper level. This family, a Mr. & Mrs. Frank Ramsay, invited me in for lunch and served a most delighlful and appetizing apple pie. Apparently they are self sufficient. Mr. Ramsay reminds me of Mr. Hutchings of Tehi. From his home travel north to end of main ridge and then back again to Ramsay home. This west exposure make for enjoyable hiking. Usual birds being present on top:

Nucifraga columbiana
Penthestes atricapillus oregonus (?)
Sitta canadensis
Cyanocitta stelleri stelleri
Dendragapus fuliginosus sierra (?)
Buteo borealis calurus
Junco oregonus oregonus. (?)
Haemorhous cassinii cassinii
Turdus m. caurina (?) sub sp.
Cyanocitta stelleri.

The trees on the west side of the mountain indicate a prevailing wind from the west as the branches are all turned to the east. At 4:30 P.M before making descent took picture (1-10-12-41) showing the Columbia river and gorge to the west. Storm invading from the S.W. and crepuscular rays playing over the winding river course. Hood River City and Interstate bridge in foreground. One can readily see how this ridge can be so windy, being in the direct course of the winds coming up through the windy river Columbia gorge. Made descent down road which eventually arrives at point half way between Bingen and White Salmon.

see enlargement on opposite page
1-10-12-41

10-19-41

Mary Jane Evans arrived from Yakima via air. We spent the day in Portland.

10-24-41

10 Aechmophorus occidentalis in Columbia river at Vancouver. Several sturgeon and eel on bank of river.

411012-128 10/26/41

Trip to Arlington. Up Columbia river to White Salmon, hence to Hood River, hence to Arlington, hence to Portland, hence to Vancouver. Approx 250 Branta Canadensis at mouth of Deschutes river. This area impressed me as being unusually abundant in ducks and geese. One individual told me that he never fails to see geese and ducks at this point. As the country to the south is good grain country am wondering if these waterfowl do not use this area at the mouth of the river as a daytime resting haven and then leave for the fields and upper Deschutes river in the evening. Have found several aggregation of waterfowl in large rivers associated with agricultural feeding grounds near by. The river section from Hood River to about 5 miles beyond the Deschutes river is exceptionally interesting but to go beyond that point up river one finds a great deal of repetition and sameness of topography etc. Several flocks of ducks at White Salmon. Raven common bird in Arlington vicinity. Good raven and prairie falcon nesting cliff in lava cliffs along river. The magpie begin to present themselves from the Dalles eastward. This morning at Hospital ground found good migration of Audubon Warblers. Sooty grouse met from walking three heave deer on grass.

11/2/41

Trip to Mouth Wind River via north side of Columbia River. On sand bar in river directly north of Portland Air Field in center about the center of river observed approx. 400 gulls resting upon the east end of the bar. The held a very close formation considering the extra available room on the island. A few raven or crow among them and disturbing their rest. First stop at Army Signal Station on north side of the river about 2 miles down from the mouth of Wind River. Impressive section of the Columbia River with islands, coves, bays and bordering cliff areas. From this area took two pictures showing a typical stretch of the river. no. (1-11-2-41) shooting down river with island on left, bay in center with an ideally situated home on the edge of the river. The island would be interesting to investigate as it appears to be free of any signs of being inhabited by domestic animals. Great Blue Heron, Horned Grebe and Gulls in evidence in this area. Picture (2-11-2-41) to east shooting up river. This scene in this area is a delicate one with soft shadows and reflections. These clouds remain in the gorge in their stratified position. As one moves up canyon beyond he moves progressively out of the foggy zone

411102-129

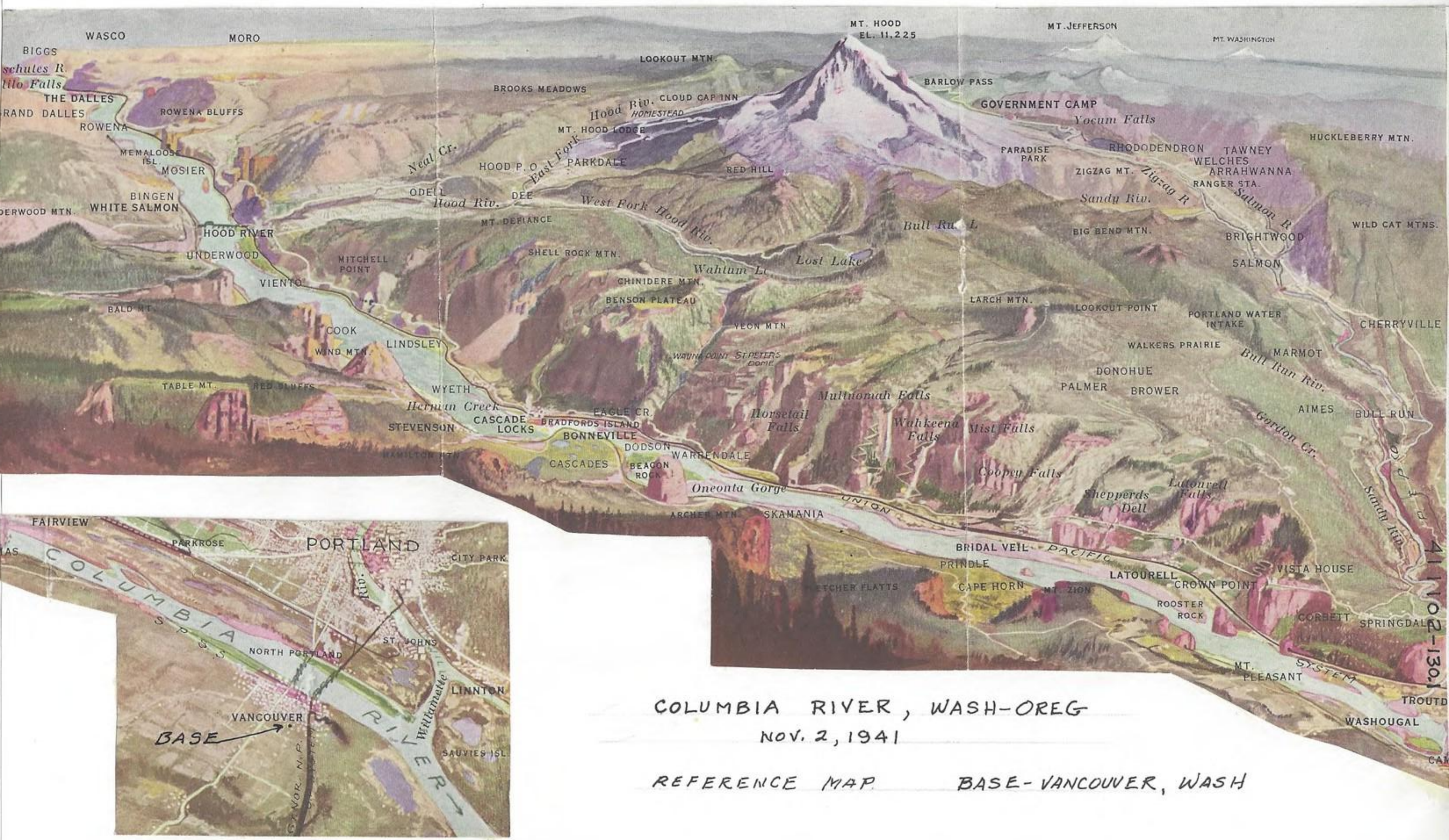
until nearing white Salmon river when the skies became clear and blue. For the last few weeks there has been clouds formed on the east side of the cascades and pushing in from that direction. These east winds are generally cold ones. Today the waters would ripple progressively down stream and then become quiet again. Occasionally the sun would break thru the clouds on the south side of the river directly in front of the cliffs as if the cliffs held the channel open. From this point continued

1-11-2-41

2-11-2-41

411102-130

up river → to point leading → up to the St. Martin Mineral Springs. Investigated the warm springs along river below the Hotel. From this point continued down stream to Columbia River. This trip made at the expense of fording along its edges at several points. Noticed that the frogs. Rana pretiosa (?) were only found in warm springs and am wondering if possibly they could be interesting when being confined to this area of the river. They would jump into pools and hide under algaes. Salmon in pairs weighing 30 lbs. Smaller fish chasing invaders away to its large mate. River edge lined with dead salmon ~~salmon~~ weighing 50-60 lbs. Larger of pairs would swim to smaller and tremble. 2 Water Ouzel chasing each other. Dead Sorex ob. (sp.?) in trail near steel bridge. Examined an ant trail thru conifer forest. Dead pine needles carried away leaving an inch wide trail to bare soil. This trail led from 100 feet or so. At the Wind River Steel bridge of R.R. and car bridge observed at 1/2 hour after sundown 4 Calaptes cafer cafer. arrive and take their position among the upper steel structures of these bridges. The use of these bridges with traffic being directed below is unusual in itself but to have 4 flickers arrive within 10 minutes is something else. Apparently the environment has a decided effect upon the animal life. The last one to arrive called before entering as it perched upon the top of the bridge. The others entered without making tho conspicuous a showing. This birds arrived from the west. At Sundown 80 Fulica americana started to come to life. They travelled in a close group. 3 horned grebe at mouth of Wind River in bay enclosure.



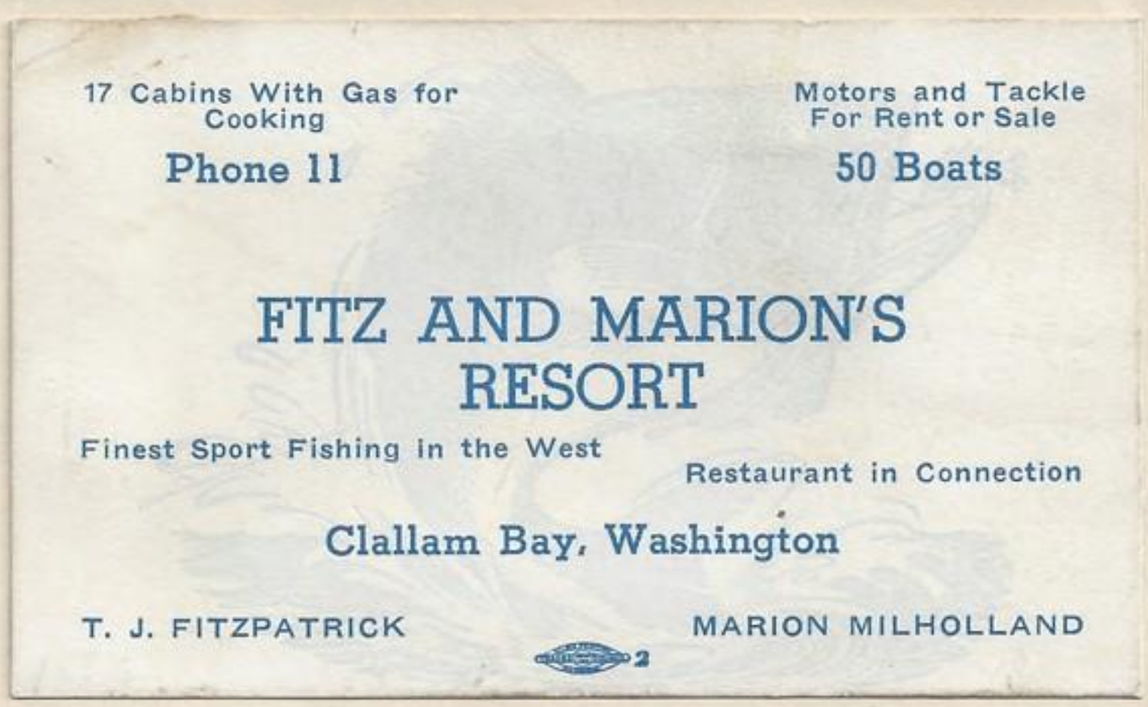

COLUMBIA RIVER, WASH-OREG
NOV. 2, 1941

REFERENCE MAP BASE-VANCOUVER, WASH

41 N02-130.1

11/8/41

Four day trip to the Olympic National Park involving Sat. Sunday, Monday and Tuesday. Left Vancouver at 2:00 P.M. Sat. afternoon with ambitions of thumbing to Port Angles. As things turned out I was indeed lucky and even overshot my distination. Arrived at Olympia at late twilight. While waiting at the bridge which crosses the bay west of town observed 12 flocks of Ai Sponsa in groups of 1-4-8-10. They were flying north across the bridge. At this same time I saw 2 gulls flying about the lights of the bridge; rather late in the evening for gulls to be active and am wondering if city lights had anything to do with their late venture. At the bridge caught a ride with a Mr. Jack E. Milholland and son Walter. They live at Olympia at R.D. # 2 box 40. They were spending the week end at Clallum Bay on the Straits of Juan de Fuca and insisted that I join them on their fishing trip. Mr. Milholland is indeed an unusual man with a philosophy of hospitality not too generally experienced. For this week end he insisted upon paying all expenses but perhaps one day I will be able to retaliate with same degree of remuneration. We followed along west side of Hoods Canal meeting up occasionally with fog banks in low valleys along the way. Arrived at Clallum Bay at 11:00 P.M. where we met his brother Marion Milholland. Marion supplied the lodging and use of his best salmon fishing equipment for the following day. The cabins are at the very edge of the Straits with brakers pounding or better lapping the sand shoreline just 80 feet from camp. These breakers occur at rather long intervals and do not know what the regularity could be correlated with.




11/9/41 (cont.)

up at daybreak. Many birds active in cool morning atmosphere. Was impressed with the numbers of birds present and being new was more than thrilled at the set-up. From the cabin could see the following birds. As I did not have too much time

to spend 411108-132 a more thorough inspection. Unquestionably many more species were present.
↳ did not make →

Gavia immer elasson. Purely a guess as to species but defintely a loon. Second guess the Common Loon. One bird spent the entire morning preening feathers. It would occasionally swim foreward with neck lowered to horizonal position as if resting entire body, neck and head upon the surface of the water. Frequently it would shake water over back and then stand up on water in an erect position and hold that repose momentarily. In this position the white body and neck were glazing white and reflected in the sunlight. From this upright position it would rather rigidly curved neck foreward and with bill pointed downward come down and strike water with head. It remained near shore between open shore line water and help beds.

Melanitta deglandi. Swimming and flying just offshore.
Melanitta perspicillata. " " " " "
Oidemia americana. These scater and two forms above were dommant bird present and during course of day offered many occasions to observe them very closely. They limited themselves, in the main, among the help zone just offshore. Early this morning one american Scater wobbled ashore and was found upon the sands some 10' from water edge. This bird was studied and afterwards placed in grasses near water. Upon latter inspection found it had died. Many appeared to be paired.

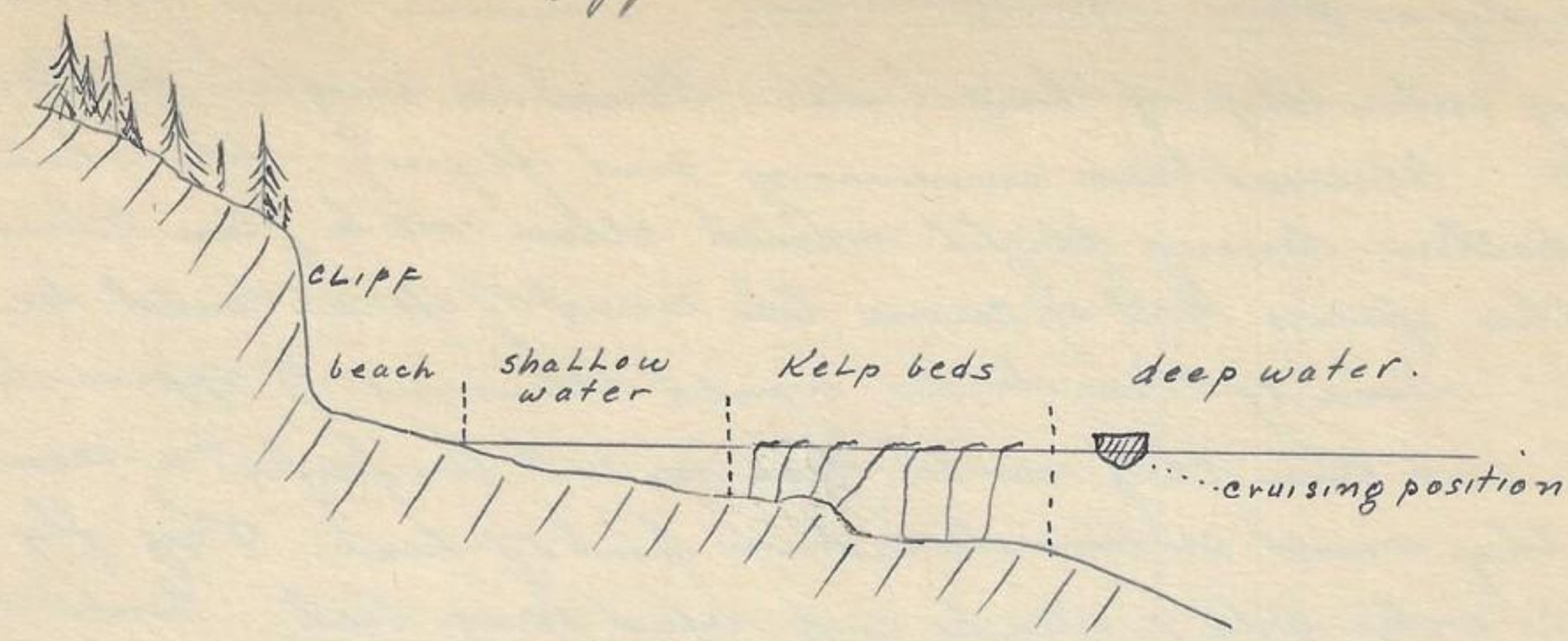
Larus glaucescens. Many gulls occupied the beach particularly at the mouth of the river which empties at this point. There were unquestionably many glaucens wings and likely both Larus delawarensis and Larus canus brachyrhynchus.

Corvus brachyrhynchos caurinus. First experience with these birds. They are indeed smaller in stature than the western Crow.

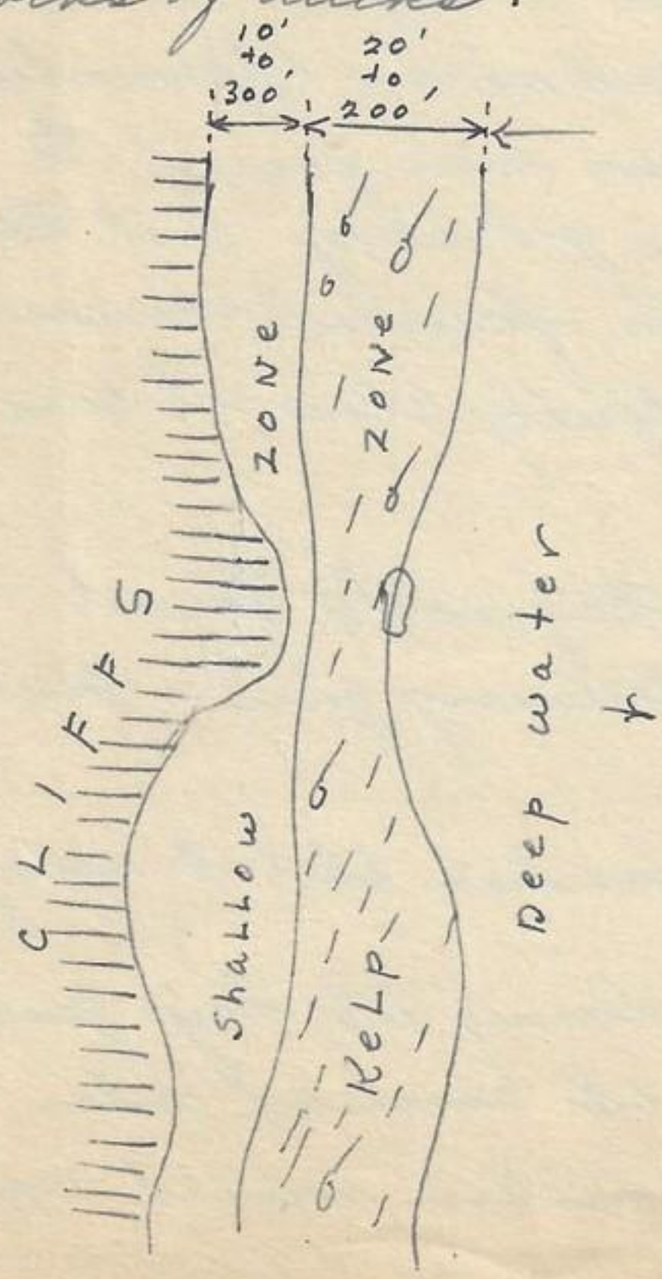
Oryechus vociferus vociferus. On river at mouth.

At 9:00 A.M we left in a motor boat with full trawling equipment to use. The best in everything. I feel that could-nt help but keep my mind on the birds about us. From Clallum Bay we trended west down the Straits of Juan de Fuca to a point at the mouth of the Hoh (?) river, fishing both

coming and returning. The topography is typical for the entire area and appears like this:




The beach, water contact and kelp beds of course varied but in the main they conformed to a certain degree of regularity. The kelp beds appear to demand a certain depth in which to grow, so, if the cliffs are abrupt with deep waters abuting againt them the kelp will in turn move shoreward. Inversally if the water bottom is of the proper depth some distance out from shore the kelp will be found there. On the average I would say that the kelp beds were from 20' to 200' wide and range from the shore edge in deeper sections to 300' from shore. This 300' intervening feet occupied with a shallow zone. One could generally see the bottom when among the kelp beds. These help beds when observed for the 1st time impress one as being flocks of ducks.




Our cruising position was mainly just outside of the help zone. Occasionally we would enter help bed zone where we could see the fish below and where we were to certainly catch the large black bass. As we moved along the birds were fearless and offered us unusual close positions for identification. The birds as a rule would move outward from kelp bed to open deep water upon our approach. They would either swim, fly or dive by swimming under water. Rarely did they go shoreward. The birds observed

411108-134

are as follows:

Brachyramphus marmoratus. Common and found all along outer edge of kelp beds. Found in singles to flocks of 30 or 40. Observed them swimming and flying. The white in wing pattern during flight would allow me to place these birds as this species but of course the record of species could be questioned. Some of these birds would allow us to approach within 20' and then they would dive in not too perfect a manner. Generally they would swim outward in front of boat. They fly close to the water with a steady and rapid wing beat. Could say that these birds were a very common form.

Melanitta perspicillata, melanitta deglandi and Oidemia americana were all present and a very common form. perspicillata most common of three forms. They were found from singles to group of 15-20. A whistling noise accompanies their flight. They left shore and help zone and swam or flew out to deep water in front of us.

Phalacrocorax auritus cincinatus. (sub. sp.)

Phalacrocorax penicillatus

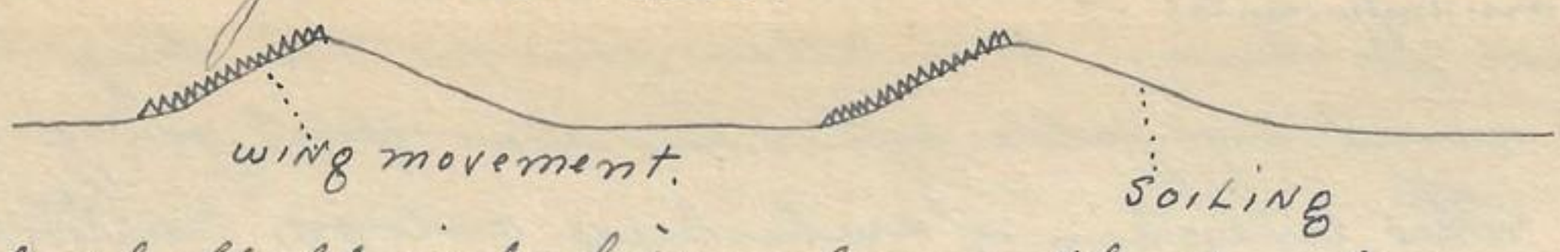
Phalacrocorax pelagicus resplendens. These three forms were all present. Only one pair of resplendens present. At one point a rock jetted out of water and some 4' high. Six cormorants were setting upon this rock and as we approached they all left. From this heighth 5 of them were forced to hit the water before they finally made their get-away but the sixth one had enough wing power to gain forward movement without striking the water, but how frightfully close it come before it was assured of a clearance.

Histrionicus histrionicus pacificus. Frequently found flying up and down the straights in our cruising zone. Quite a duck!

Cepphus columba. (?) Am almost positive that I recognized this species as being present.

Puffinus gravis. Seven observed during the day generally singles. Their flight is characteristically the same as when observed at Cannon Beach. Their flight pattern would app-

something on this order:




Lateral flight indeed irregular with deviations, whirling and retracking. Generally their movement is directive.

Ardea herodias fannini. Few birds

Larus. (sps.)

Ducks (sps)

Oxyechus vociferus vociferus. Shore.

There was unquestionably many birds that I did not recognized or have time to inspect more carefully. I was forcefully impressed with the fact that this area is unusually heavily population when compared with ocean sections that I have visited before. Artainly the Olympic Nat'l Park will someday incorporate similar Strait sections in their set-up. During morning fishing up to 3:00 P.M. caught 1, 15 lb salmon, 2 black bass 5 blackcoch, and 1 jack or Silver Salmon. Returned to Clallum Bay and left for Port Angeles at 4:00 P.M. Oaks and birch tree unusual site to me. Mr and Walter Millsalland left me at Port Angeles where I was to make my station for the Mt. Angeles ascent.

11/10/41 (cont.)

This morning met Mr. Ruff, a skier of the Olympic Ski Club and a friend of Paul's. A Mr. Preebe connected with Klahana Club. Called at the Macy home and met Paul Macy's mother. Mr. Preston Macy Superintendent of Olympic Nat'l Park. Their spacious home and Park offices has just been completed. After visit Mrs. Macy insisted that I stay over and have supper but knowing how little time I had anyway to see the Park caned do nothing more than thank her for her hospitality. She reports that Paul had been effected with an ear trouble that went on unnoticed until now he has almost lost the hearing in one ear. Mrs. Macy was kind enough to take me over to canyon road leading up to the Heart O'the Hills where I was to stay that nite. Mrs. Macy is indeed a most remarkable women and is one expression of hospitality. Walked to Heart O'the Hills. Road under construction. Met Mr. and Mrs. Oscar Nelson at Heart O'the Hills and arranged for a cabin for overnite. The nelsons manage

411110-136

this re[illegible] and are instrumental [illegible] in the Klahane Club Museum and the Klahane Gardens. Mrs. Nelson gave me the keys to museum and a most enjoyable afternoon was spent going over the collections. This collection of archeology, oology, ornithology, will someday be part of the nat'l Park collection. Noted among the many rarer bird skins an Cryptoglaux funerea richardsoni (?) This collection was founded and prepared by a Mr. Webster, an early naturalist of this area. Mr. Webster has written a book of this area title "The Friendly Mountain" a copy of which (1-11-10-41) was presented to me by Mr. & Mrs. Nelson. Mr. Webster's son now operates the newspaper concern in Port Angeles. The Nelsons are vitally interested in flowers and are just now begining a study of the native plant forms in Kodachrome. At 3:00 P.M left Heart o the Hills and start up regular trail to Lake Angeles. Arrived at 5:00 P.M at twilight. Left the lake at 5:15 P.M and returned to Heart O'the Hills at 6:40 P.M. The trail leads thru a deep dense forest of conifers at lower levels to sparser alpine covering at the lake. Birds observed:

Turdus migratorius caurinus, 1 bird at Museum
Buteo borealis calurus, 1 " " " "
Junco oregonus oregonus, flock at Museum
Calaptes cafer cafer, 1 bird at Museum

On way up trail observed the following.

Dryobates villosus harrisi 3 single birds
Sporeiis noevius 2 together.
Regulus satrapa olivaceus. 3 small flocks
Melospiza melodia morphna 1 bird
Douglas Tree Squirrel 3 near each other.

1 brown snowshoe rabbit sized bunny with white feet at shelter at lake edge.

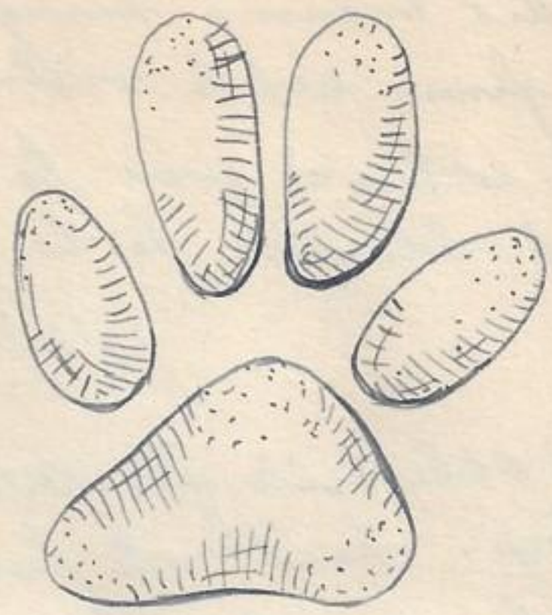
1 Odocoileus Columbianus Columbianus. (?) at Ennis Cr. Crossover. Both the Thrush and Woodpeckers were on ground level when flushed as if ready for retiring in that position. On return made last 1/3 distance in total darkness. One might as well have carried his eyes in his back pocket. Progress was made entirely by feel of feet and as the trail was of such a nature that one could not wander from it was able to plug along at snails pace to destination. Total

darkness aptly describes the situation 411110-137 → and a most unique experience to say the least. On way up observed only an occasional deer track in trail. Around the lake at Heart O the Hills found numerous salamander about 1 inch long. Retired this evening being thankful that I was able to return to camp from such nite-black forests and planning for tomarrow when I was to climb Mt. Angeles. Mr. Nelson gave me record blanks to be placed in register box on top of peak.

11/11/41 (Cont.)

Left Heart O the Hills for Mt. Angeles via of Heather Park. Made solitary trip. Last nite partially clear but from 4:00 A.M on rain and low mist clouds. Left at 5:30 A.M. Still dark at this time and was forced to use a flashlight. Dull cold dreary rain as usual with fog clouds closed in. At 6:15 A.M heard a flock of Canadian geese. The calls from which were coming from the general area of the lake at Heart O the Hills. The Nelson report that frequently geese and occasionally whistling swan visit them. Last Sunday a flock of six whisting swan (Cygnus Columbianus) lit in the lake and then after circling around several times left the area. Mr. Nelson took a picture of these circling birds which he hopes will turn out when developed. When this Puget sound area becomes blanketed with fog with the higher areas above and free of fog, am wondering if the geese and swan are forced to use the higher lakes. 7:00 A.M arrived at Halfway rock. No life other than geese up to this point. At this point observed a Douglas tree squirrel and 2 flocks of Regulus satrapa olivaceus. 7:25 A.M watched a Douglas Tree squirrel at six feet. It descended a tree trunk to within 5' on its own accord indicating undue confidence in a human being. Another squirrel of same species some 200' up the trail. 7:30 A.M Group of Kinglets (Sp.) Arrived at the Shelter at Heather park at 8:00 A.M. Snow line about 200' below brink of the park cirque. It had been raining gently all morning. Beautiful glacial striae at brink of cirque. Timber now of alpine nature. From the shelter and creek left up Heather Park toward divide. Just as I approached the last stretch before divide a large buck deer with beautiful set of anthers ran across flat and down steep trail on other side of divide. It presumably had been resting in dwarfed conifers on flat at divide. When I arrived at the divide proper I found a set of bobcat tracks in snow and from the nature of the stride would not wonder if by chance the deer could have

frightened the cat. The tracks could not have been made many minutes ago because the imprints had not as yet been filled in with the falling snow. Recorded the track on paper and as far as proportions and natural size is concerned would say that the drawing is adequate. Arrived at divide at 8:30 AM. Between 8:30 and 9:00 the fog lifted momentarily just long enough to get a view to the south at the distant Olympics. The clearness of



the view was impressive and the depth blow appalling. Spent the morning to 11:15 on the ridge and peaks to the east, and then made descent to S. Of the Hills. From the divide between First peak and Second Peak made the ascent to the east up Second Peak. Second Peak consists of three small peaks, the center on which supports the register box of the Klahane Club. During this storm tarried around the most easterly peak but finally gave it up and fell back to the main peak and after working up the north chimney to register box, returned to divide. About an 1/2 inch of ice and snow was blasted against the north and south walls of these peaks which made the descent & descent hazardous. From this area recorded two picture. The

first one no. (1-11-11-41) directed south → toward the third Peak
momentary left of clouds with ray of light piercing the cold windy
atmosphere. Olympic peaks directly to the south. No snow
on rock peak exposure. Picture no (2-11-11-41) of the
dude between 2nd & 3rd peak
with clouds being carried upward
with the rising wind currents.
Was noticed that the appearance
of snow, wind and clearing of
atmosphere followed a definite
and progressive manner. Left
these more inhospital peaks as
indicated and made return down

2-11-11-41

through Heather Park, hence down
regular trail. Snow line several hundred feet below brink of
Heather Park. Arrived at Heart O'the Hills and after bidding the
Nelsons Good by left for Port Angeles, hence to Vancouver arriving in
the evening about 8:30 P.M. It seems so remarkable that I could
have been on Mt. Angeles in the morning and at Vancouver in the even-
ing of the same day. Nelie awaiting my arrival. Including
picture no. (2-11-10-41) taken yesterday showing sea of clouds from
below Mt. Angeles Lake toward Mt. Baker. This shot was taken
late in the evening and does not
present a very lively picture. It
was on this occasion that I
wondered about the wondering of
swan and geese from high Mt.
lakes above the sea of clouds.
Certainly this area is of Nat'l
Park Caliber and should be
preserved for all posterity, and

2-11-10-41

should include great stripes along the Juan de Fuca Straits to
the ocean. One thing I realized was the fact that if I were to
every visit the park in army capacity it would have to be done
in an airplane.

11/12/41

Nellie Vaughan invited me to his home for a Jack Salmon fry. In evening visited high school and met Mrs. Johnson. Saw his Brant oil painting.

12/6/41

Visited Columbia river south of Pearson Air Port. Found duck to be on the increase at least more movement than I have previously experienced. High water, probably maximum with an unbelievable amount of wood debris in the form of bark fragments, logs, boards etc. These accumulations in the more sandy regions are soon covered by moving sand after river has again subsided to normal level. Birds observed are:

Psaltriparus minimus minimus
Anthus spinoletta
Mergus serrator
Anas p. platyrhynchos.
Marica americana
Species of Larus.
Okyechus vociferous vociferous. flock of 120
Corvus b. brachyrhynchos.
Melospiza melodia morphna.

12/13/41

Birds observed from a point about 1/2 mile up river from the Interstate bridge across the Columbia for about a mile or so. Course mainly along shore line with stripe of Cottonwood and willow bordering:

Dendroica auduboni addubani. 1 bird
Spinus tristis salicomanus (?) flock of about 30
Dryobates pubescens gairdneri. 1 bird
Corthylio Calendula grinnelli 1 bird
Falco sparverius phalaena 1 bird
Thryomanes bewicki calophonus 1 bird
Mergus serrator 1 bird
Melospiza melodia morphna 2 birds
Phalacrocorax auritus albociliatus 1 bird
Actitis macularia 2 birds together.
Regulus satrapa olivaceus 2 birds

Junco 411213-142 Several
↘ oregonus oregonus.
Larus glaucescens.
Other Larus
Buteo borealis calurus.
Sylmlagus.

12/20/41

Census as above but continued farther up river. More alert and country familiar. Day cold and rained all day. Time in field from 2:30 P.M to 7:00 P.M.

Dryobates villosus harrisi. Two bird hammering on dead conifer tree in virgin timber stand east of hospital.

Corthylio calendula cinerescens 5 birds

Regulus satrapa olivaceus. Several groups.

Penthestes atricapillus occidentalis. 12 or so flocks ranging from 4 to 10 birds mixed with C.c.c. and Reg. s.o.

Calaptes cafer cafer. 10 birds in pairs or singles. called occasionally.

Larus glaucescens

Other Larus.

Actitis macularia. Only one bird where last week observed two of them.

Corvus b. brachyrhynchos. 10 birds

Agelaius (Sp.?) Flock of 120 ♀

Melospiza melodia morphna. Present in usual numbers.

Accipiter cooperi. 1 bird observed late in evening.

Mareca americana. 1 flock

Otocoris alpestris ← strigata. (Sub. Sp.?) 25 in flock. These birds were feeding upon sands of river dredgings which take on the appearance of a desert. The birds were picking up seed upon the sands but mainly from beneath the weed stems & plants which sparsely covered the area. It seemed remarkable that so many seeds were so generally dispersed upon the vacant areas of the dunes. Walked to within 30' whereupon the herded ahead for about 100'. They finally left and flew 300' and lit again. They had just completed a very irregular flight just before my arrival. Birds run like crouched pheasant. Plumage from indistinct facial markings to intense and

well defined yellow and black striping. 411220-143
Intensity of yellow
apparent.

Oreothlypis ruficapilla ruficapilla. 80 birds

Anthus spinoletta. 30 feeding in nearly carrot field. Noted that birds inhabit areas that have recently been disturbed or efficted.

Ardea herodias fannini. 1 bird

Megaceryle alcyon caurina 1 bird

Sturnella neglecta 12 birds. Several singing

Dendroica auduboni auduboni. 1 flock of 12. several singles and pairs

Dryobates pubescens gairdneri. Definitely feeding with Golden Cr. Kinglet, Seattle Wren and Oregon Chickadees.

Junco oreganus oreganus. Not many

Passer domesticus Few at Barracks.

Fulica americana. 1 dead bird

Nannus hiemalis pacificus. 1 bird

Spinus psaltria salicamanes. (?) flock of about 30.

In general found more small birds like Kinglet and chickadees and fewer ducks or water fowl. While this area represents a shoreline of the Columbia river am surprise at the lack of water fowl or shorebirds.

Turdus migratorius caurina. 12 in one flock.

12/27/41

This morning at about 8:30 A.M shortly after sunrise observed the usual crow flight of the morning. These birds no doubt fly at other points but the use this particular lane for some reason or other. Several hundred birds in continuous flight passed directly overhead and not far above the tops. There is generally a wind at this time of morning and they were utilizing it as a matter of necessity or for pleasure. At any rate there was a regular and consistent tacking into the wind which with such regular one could discount the pleasure factor and consider the act as a necessity. The most noticeable tacking was laterally from side to side with variations up or down as the case may have required. While the up & down motion was not as evident because of my position the lateral movement was clearly displayed. They were moving

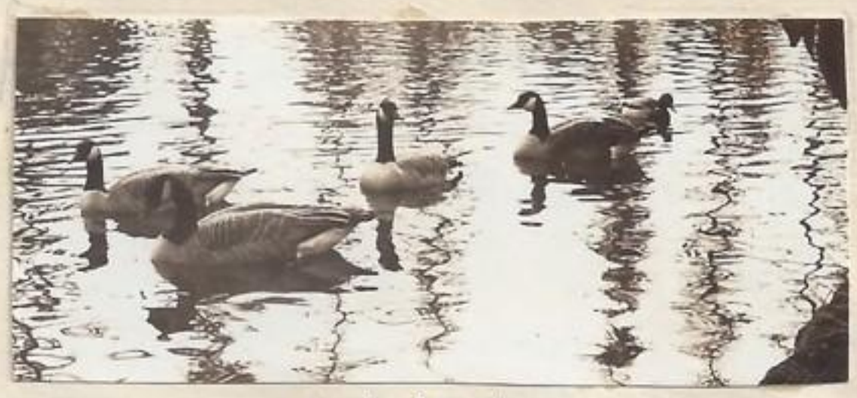
into the wind. 41/227-144 This eastward flight is quite a regular feature with these birds.

12/30/41

Took following pictures at Laurelhurst Park in east Portland. The following species of birds were represented at the Park.

Branta canadensis canadensis
Branta canadensis occidentalis
Branta canadensis minima

1-11-30-41



2-11-30-41

3-11-30-41

4-11-30-41

(no. 1-11-30-41) shows the comparative size of the three geese. The mallard duck can be used for comparison. While there was not too great a difference between the forms they do travel in separate groups peculiar to their own species.

(2-11-30-41). Group of B. c. canadensis and possibly B.c. o.

(3-11-30-41) Species? probably Branta c. occidentalis.

(4-11-30-41). Mixed group. Forward march! This is a regular tendency in feeding in groups.

Other forms represented at park are: Buffle head, ring billed duck, Lesser Snow Goose, Pintail, mallards, Glaucous Gull, California Gull(?).

Dec 20-1941

BARNES GENERAL HOSPITAL
VANCOUVER, WASHINGTON

Dear Mother and Dad.

At this moment I cannot think of anything that could possible give me more pleasure than to be transported in one big leap to Utah: to home for Christmas with the family and friends.

With everthing suspended in uncertainty one cannot be to confident about plans but one thing sure, after this old world has readjusted your son James will be on deck to string brightly colored lights on one particular and significant fir tree in Utah.

For this "Army Christmas" all that I could possible wish for, knowing how little I have succeeded in that, is to reassure my pride and affectionate gratitude of the most kindly and patient mother and father in the world.

I share this deep feeling for my lovely sister. Her new family loyality and devotion is a feeling that just must live if civilization is to survive; my respect goes all out for both she and Don. And while Don Jr. is not expected to realize such emotional feelings he should concur in my wishes for a drier and more fragrant year.

How I would like to see Edith, Gloria and David; just to be with them would be an inexpressible delight. To them, my heartiest wishes for a happy Christmas.

Good-by now, will have you constantly in my mind with wishes for a most merry Christmas and New Year.

James

P.S. Have David give old Jack a good husky pat on the rear for me.