

***JOURNAL 1981***

*JAMES W. BEE*

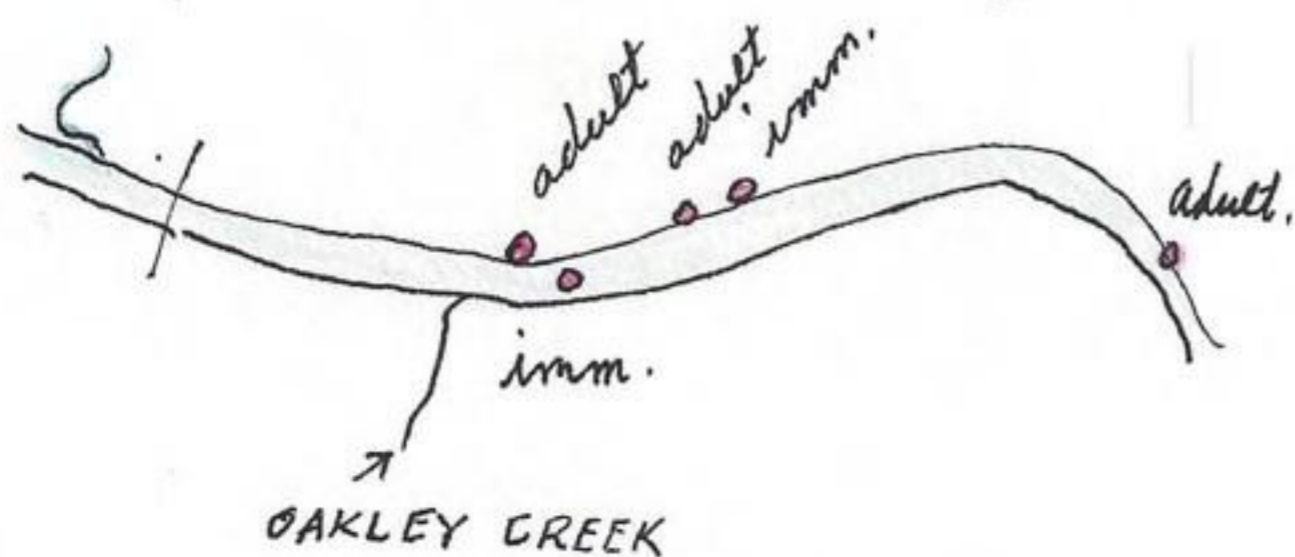
## JOURNAL 1981

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
 Jan 3, 1981

at 10:48 A.M. approximately 2000 starling alighted in back yard of our home and open lawns of adjoining homes. This aggregation has occurred only twice in our area, most flocks which are common average 20 (2-50) in numbers. This large flock mainly fed on grass seeds. It is interesting that although there was a feeder in our yard with 30 or so English sparrows actively feed on the feeder and <sup>on</sup> the ground, the starling had ignored the resource of food at the feeder but continued to feed on grass and weed seeds, never coming closer than 10' of the feeder. as if the large flock behaviorism was set at feeding on <sup>grass</sup> seeds of open lawn and that their objective could not be modified.

at 10:52 a Cooper hawk sailed in just above the ground and captured one of the starling. The <sup>other</sup> starlings and sparrows left the area leaving the hawk and its prey the only birds in sight. The hawk stood upright and without movement held the bird on to the ground. at 10:54, 2 minutes later, it flew 80' N over a fence and into a brushy corner of our adjoining neighbors lot where it alighted on the ground and immediately started to pluck feathers from the breast and neck of the starling. The movement was continuous and rapid. at 10:59, five minutes later it started to feed on the prey which lasted until 11:11. During the 12 minutes of feeding it worked continuously with only 2 short pauses of 20 seconds each. The bird was moved 2 feet at one time with hardly an interruption of feeding. After finishing feeding it left the same direction as it approached the capture and feeding of the bird. It flew low to fence, over fence and low over roadway and then up & over a one story house to again drop to a low flight plan. It flies rapidly & directly.

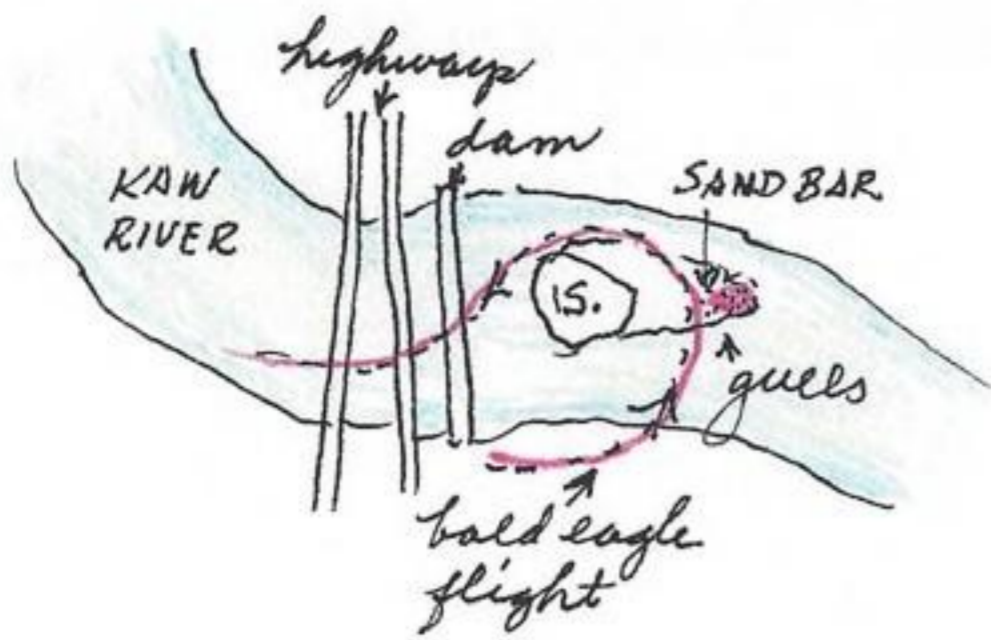
Leecompton, Kaw River, Douglas Co., Kansas  
 Jan 7, 1981



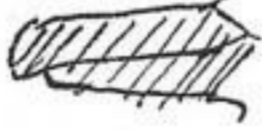

Observed 5 bald eagles this A.M. (3 adult and 2 immatures) on Kaw River downstream from Leecompton (below Oakley Creek) and all on N side river except an immature on sandbar. It flew up into tree with nearest adult.

Lawrence, Below Bowersock Dam, Douglas Co., Kansas.

Jan 8, 1981



at 11:45 AM an immature bold eagle circled 10 feet above water over a flock of 89 gulls including 5 herring gulls and 84 ring-billed gulls that were resting on a sand bar below the dam. The gulls left at one impulse but after the eagle pass on they immediately returned

to the sand bar. Gulls 99 per cent adults in both species. The color of legs and bill are best characters to differentiate the two species. <sup>Kent</sup> Van Hoosen reported an immature eagle fly over the City Hall building over the river on Jan 1, 1981. Adult herring and ring-bills have identical tone of gray backs. Herring first year has black bill and second year black-tipped  all legs pink. Ring-bill on other hand (adult)  have greenish legs; immatures flesh colored legs and tip like second year herring is black tipped but rest of bill is orange than adults which have a ring of black.

402 Yorkshire, Lawrence, Douglas Co., Kansas

403 Yorkshire

Jan 8, 1981

Judy Darley reports that white-breasted nuthatches, purple finch, Harris sparrows have been at her bird feeder whereas at our feeder we have not seen these birds except 2 Harris sparrow one day. Tree cover makes the difference, where are the tree sparrows this year?

Jan. 10, 1981

18 pine siskin and 2 gold finch at feeder plus sparrows & starling

Jan. 11, 1981

35 pine siskin and 6 gold finch at feeder plus sparrows & starling & juncos

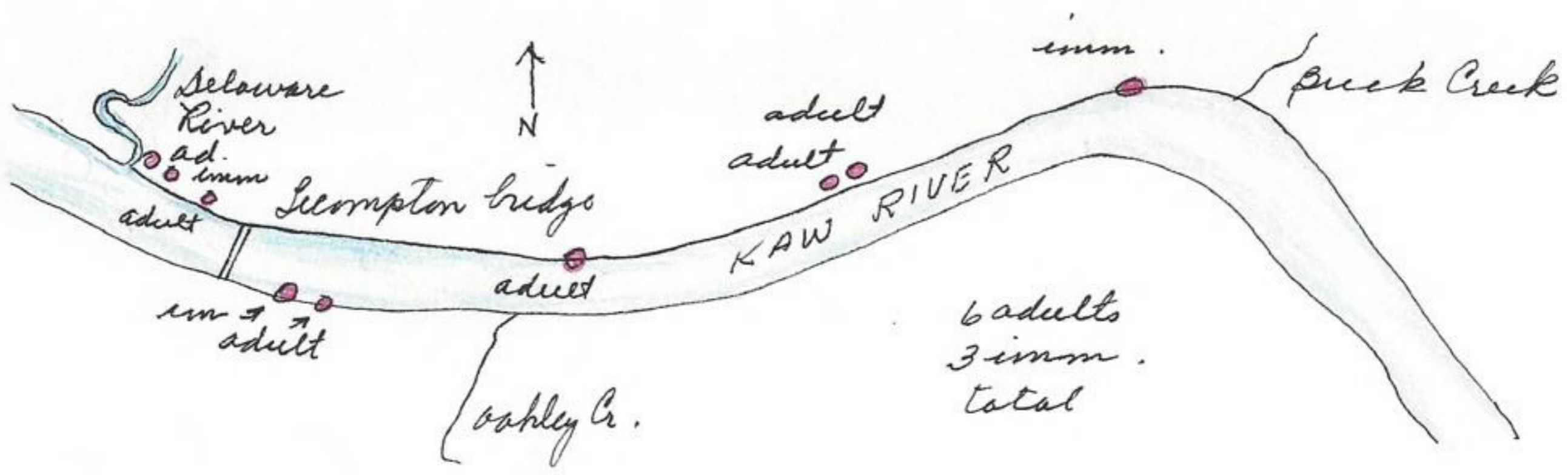
Jan 12, 1981

42 pine siskin and 3 goldfinch, 90 Eng sparrows, 18 starling, 1 downy, 4 slate-colored juncos at feeder. also 2 jay & 1 y.s. flicker

Leecompton - Perry Reservoir, Douglas and Jefferson Co., Kansas

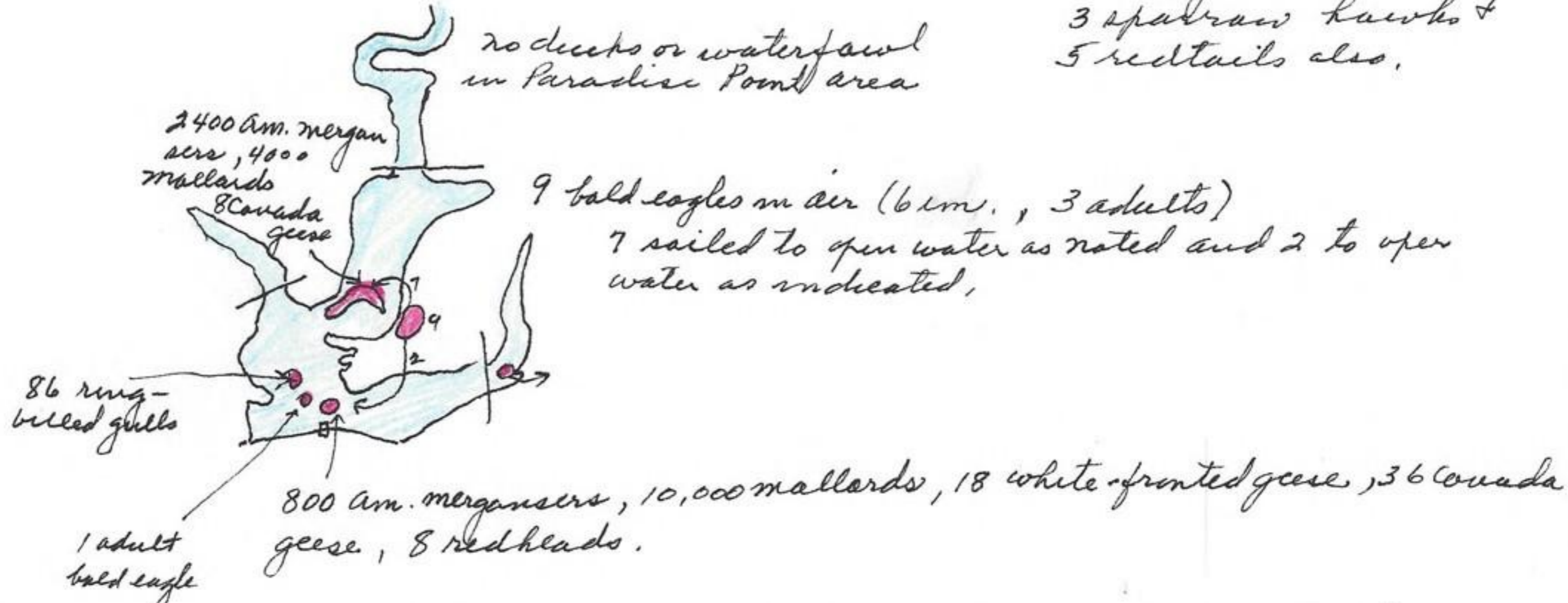
Jan 15, 1981

Kent Van Hoosen and I made <sup>bold</sup> eagle census of the Leecompton & Perry Reservoir area. He was to take photos for a feature article for the Journal World. Followed the lower river road from Lake View to Leecompton and made 5 stops at vantage points to check the entire area of the Kaw River. Local movement was noted and there was no possibility of duplicating birds in the count.



Continued to Perry Reservoir and observed the following ducks & bald eagles. Followed W across dam, up west side to Osawki thence E to road to Paradise Peninsula then return S to Big Slough Park & Big Slough Bay plus Walters Lake,

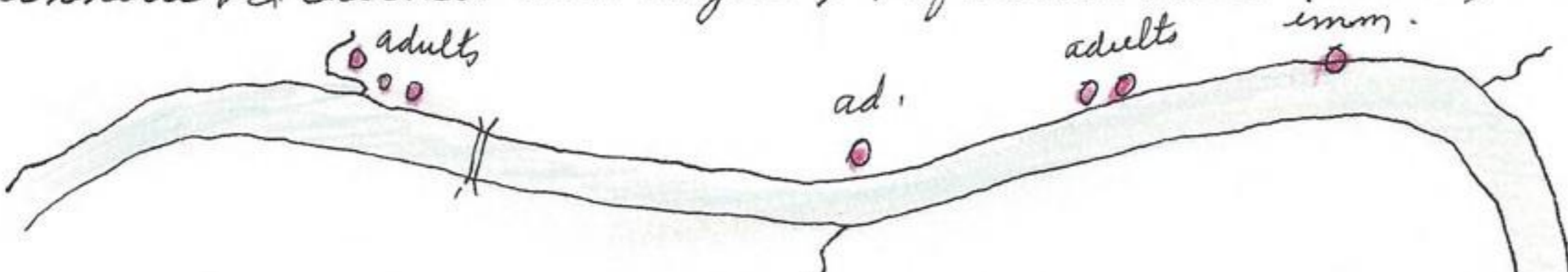
In Perry Reservoir area  
3 sparrow hawks &  
5 redtails also.



no waterfowl in Big Slough area or Walters Lake. 1 imm. bald eagle flew up east bay area. A total of eleven bald eagles were observed in Perry Reservoir bringing total to 20 birds observed today.

Leocompton, Kaw River, Douglas & Jefferson Co., Kansas  
Jan 21, 1981

Annette & I checked bald eagles, 7 of which 6 were adults) checked 7 places <sup>on river</sup>.



These were generally distributed. Only 2 Am. merganser on river, no other ducks. Fox squirrel fed top <sup>tall</sup> pycamore. Eagle watchers have made well beaten trail to river. Beaver trappers just starting line toward Delaware R. At Leocompton, paid for membership in historical society, also purchase new history of Leocompton and a house book. \$50.00 for 6 cup & tea set, gold. (demitasse)

Clinton Reservoir, W face dam, Douglas Co., Kansas

Jan 22, 1981

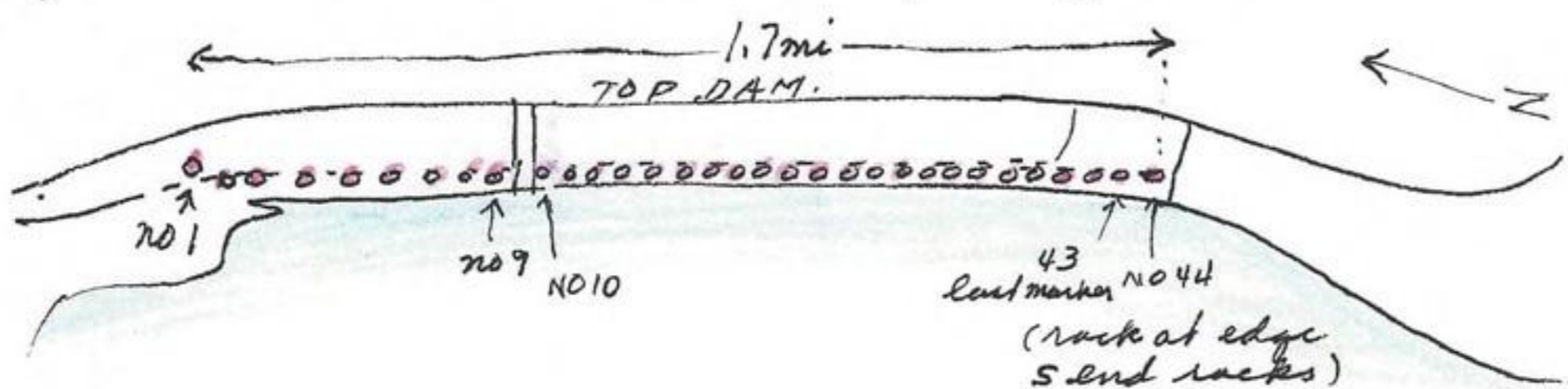
Left N end dam at station 1 at 2:20 P.M. Temp 57°F, slight wind. 2 crows flew E over dam at gates. Pond level leaves greenish. At station 34 a snowy owl left W. edge of roadway and flew W over ice about 3-4 inches above, to 30' from open water where it remained the entire time we were in the area. In dirt of roadway few rabbit tracks. At about where owl left were holes in road as if made by mammals although no sign other than holes.

Reached S end road at 3:35. Owl still on ice. No wind. Returned

4:40. Walking time at leisure gait

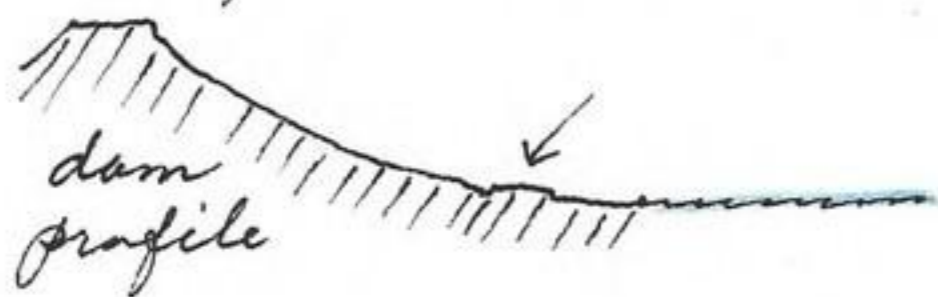
of the 3.4 mile round trip is <sup>aver.</sup> 2 hr + 20 min.

numbers are brown paint on rocks directly E of dam core markers (markers W side road, numbers E side road.)



Jan 23, 1981

made another census across dam on lower service road at base of dam. Left 2:12, temp 62°F, no wind. Snowy owl



left <sup>50' at</sup> edge road on right or lakeside at station 22 at 2:50 P.M. It flew SW out <sup>over</sup> ice and cleared by 3 inches and then returned to beach and flew

S to station 33 where it alighted on a rock. As I approached it left station 33 <sup>3:05</sup> when I was at station 31 or 400 away. It flew directly W and alighted among ice fragments on solid ice. It arrived on ice 30 seconds later. Cars and motorcycle

travelling on road at top of dam did not dislodge or effect the owl. A <sup>low flying</sup> Trans World aircraft (large) passes SW along S side Rock Creek but did not displace owl or ducks. A motor boat moved S thru open water and displaced all ducks but not the owl. Arrived S end dam 2:50 (or 1 hour trip).

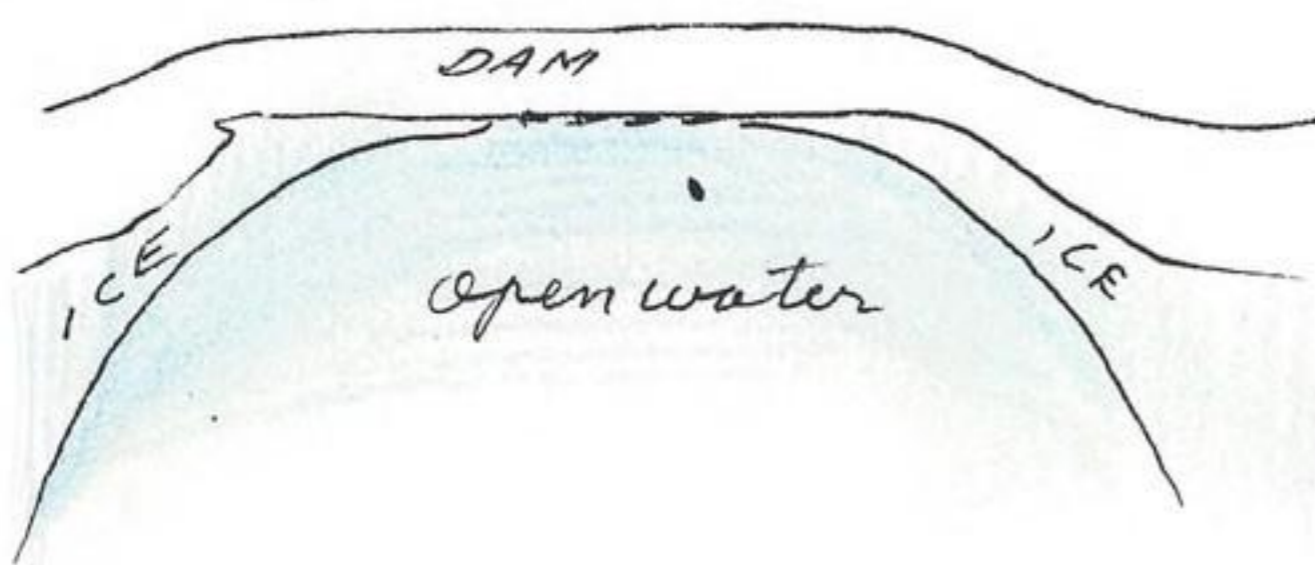
When owl is in direct line of sunshine reflection on ice, it is (the owl) a black silhouette.

At 4:50 P.M. loud shot gun report. <sup>12,000 ducks left head Rock Creek.</sup> At 5:32 a Cessna no. N704RQ flew low over ducks and displaced them. The ducks returned. 5:35 another shot.

These shots are from head of Luck Creek Bay. Another shot 5:45, ducks left and returned 5:55. Returned to N end dam and noticed the snowy owl still in same position on ice. It is misleading in judging position of objects on a lake. For instance when we were at S end of dam the owl appear opposite the outflow gates on dam but when at N end of dam the owl appeared opposite the S end of dam, no other bird on dam except snowy owl. Black spiders active, 1/4"

Jan 26, 1981

Left N end dam 3:00 P.M. and gained S end dam at 4:16 P.M. Open water to dam in middle, solid ice on N & S ends grading to slush where contacting dam. No snowy owl this trip. On return along dam, ducks started to leave lake area and fly E over dam about at center. First group of 350 ducks left at 4:18 P.M. next group of 190 left at 4:36 P.M. & in 3 minutes were



over and beyond the dam to E. There was no other ducks leaving this evening. 2 gulls over resting ducks in center of lake. No birds of any kind at dam census area although lake water open. Found lower track of road better walking and apparently more animals including man use the trail nearest to the down slope. Summary of measurements:

7.4 miles from 402 Yorkshire Dr. to N end dam.  
1.7 miles across dam from station 1 to 44.  
3.4 miles round trip on census transect.  
Station 10 just N of outlet gate support.  
2 hrs 20 min average walking time (both ways).

402 Yorkshire Dr. Lawrence, Kansas

Jan 28, 1981

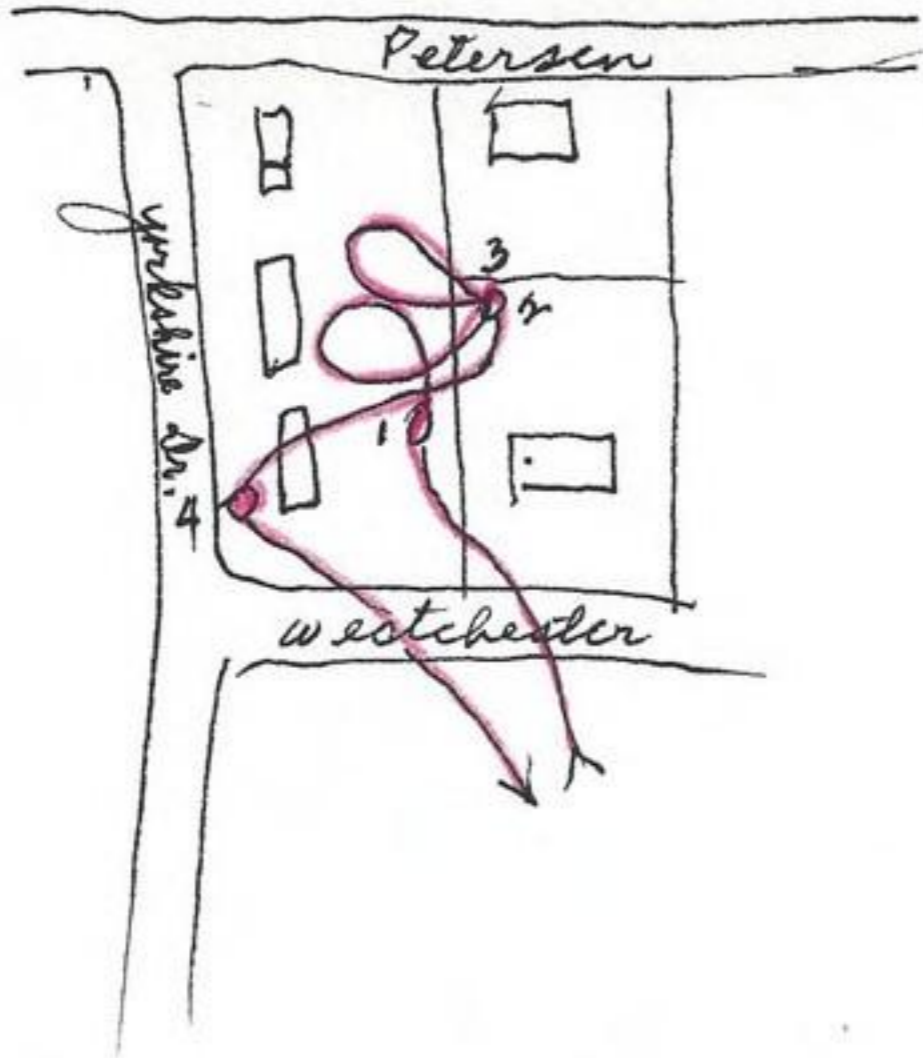
at 12:30 P.M. a cooper's hawk arrived at feeding area but was un-

successful in capturing a starling. The tail is definitely rounded and yellow legs about the size of pencils. These are good field markers. It remained motionless on ground and did not pursue the birds. All species of birds left feeder area and flew beyond out of sight. At the time the hawk struck there were 185 pine siskin, 8 goldfinch, 120 Eng. sparrows, 13 starlings (8-50) 2 juncos and one downy woodpecker.

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The Cooper hawk arrived from the S and attempted to capture a starling ① but without success. It then flew to a tree no ② after making on circle in the yard, thence another circle and then back to ③, thence across yard up over house to a tree, thence S from whence it came. All birds completely disappeared when hawk first arrived.

Later in the day there were 2 male and 1 female purple finch at feeding (one used by goldfinch & pine siskin, but not the automatic feeders. They were accepted without competition. There has been a dramatic increase of birds today after 4 days of warm summerlike weather (temp to 70°F one day). Today is cold and promise of 2-4 inches snow which will relieve the winter drought. We have been watering trees and roses the last 2 days.

Jan. 28, 1981

Mr. Steve Warren, a neighbor who lives at end yorkshire on W side to N, reports: Runs 6-8 miles 3 times a week in the general area of Martin Park & Lakeview, generally in late afternoon. At about sundown one sees deer, coyotes and red foxes, several deer, 3 red foxes and 2 coyotes for instance at Martin Park. One large buck white-tailed deer left deciduous forest onto the road and proceeded him 1/10 mile about 90 feet ahead of him after which the deer ran into the forest again. The forest coyotes may be at Martin Park because of the refuge from picnickers.

Clinton Reservoir, W side dam, Douglas Co., Kansas

Jan 30, 1981

made survey of W side of dam. First snow yesterday afternoon and evening, about 3/4 inch, temp at 7:00 A.M. 27°F, 14°F last night. The new snow, although slightly wind drifting snow to SSW. Recorded most tracks made last night. No wind at start of survey, sky clear. Left station 1 at 8:15 A.M. <sup>Peromyscus.</sup> (see insert Feb. 3, 1981 for <sup>Peromyscus</sup> tracks of one set of 2 ways that is across and back on same trail or

near enough (up to 2 or 3 feet) to suggest that it was the same individual. Coyote tracks to N up road. They in fact gave top of dam along road & thence across dam to E, juncos tracks.

Station 2. Coyote W to E across road, Peromyscus set (over & back), Peromyscus 2 tracks (set, over & back), Peromyscus 4 tracks (2 sets), Peromyscus 4 tracks (2 sets), Peromyscus 2 tracks (1 set), P. l. 2 (set), P. l. 2 (set). Coyote tracks continuous in Station 1 & 2. The hind foot of the coyote measured 66 x 42 and front 76 x 47 mm. Snow on ice is in patches blown by wind.

Station 3. 2 Peromyscus (1 set), 2 Peromyscus (1 set). A set is over & back <sup>across road.</sup>

Station 4. 2 crows from E over dam to edge of ice.

Station 5. Coyote has been continuous since Station 1.

Station 6. At 8:30 a snow owl left <sup>6+150'</sup> rocks 10' from lake and flew out over ice, thence S, then E up slope of dam to black and yellow post at station 10+100' or 2,300' (each post & cement round marker is 200' apart). This flight (<sup>down dam</sup> linear) was 750'. Car passing on top dam did not disturb the owl in this position half way up slope.

Station 7

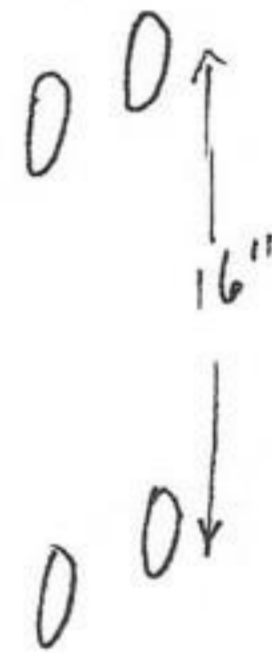
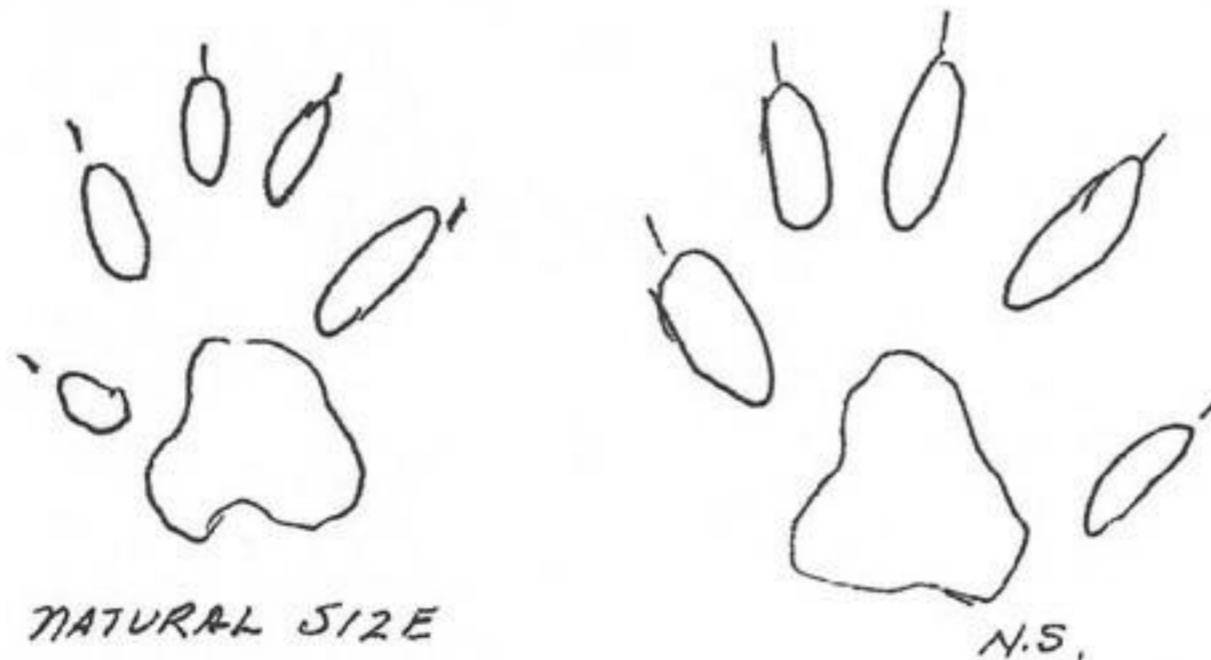
Station 8

Station 9 Crow flew W over dam. The coyote that have been in road all this distance makes entrance onto road here.

Station 10 Snowy owl left position at 10+100 feet (100 feet beyond) and flew out over ice and thence S to station 13+100 and alighted 2 feet from wedge road on rock.

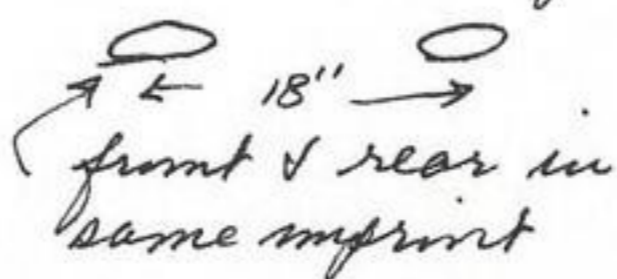
Station 11

Station 12 mink tracks from rocks to E.



The mink moved S back a forth across road, leaving road for 5-10' at places.

Station 13 above mink exit from hole in road and no tracks leading to hole, continued S. Coyote left to E. Its tracks three 13 did not respond to mink tracks although crossing them or following overprint several times.

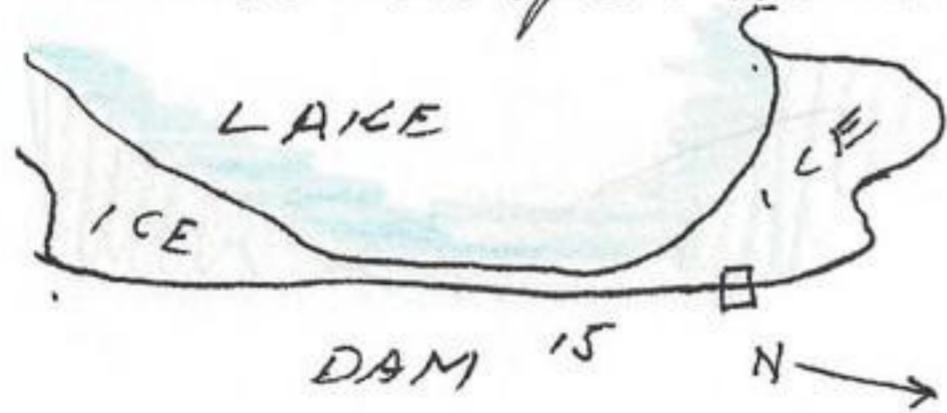


Snowy owl left to 19



The coyote would follow one side of road for some distance and then move to other side (road tracks) several times as it move N along road. Its tracks indicated that it was passing through and not hunting.

Station 15. Another mink entered road from W and checked two holes in road then left to W. Tail mark in snow. At this station the open water comes within 20' of shore



Station 16 Snowy owl left station 19 at 9:08 and flew to station 21+100 first flying down road then over ice and water to alighting position. Coyote from E and moved S down road. Track of this Coyote measured 67 x 44 front and 60 x 40 hind foot.

Station 17 Peromyscus 2 tracks (set), at 17+100 coyote from W onto road from ice along lake.

Station 18

Station 19 Peromyscus at 19+40' one way across road.

Station 20 Mink crossed road W to E, Snowy owl left 21+100 as I came into station 20 or 300' ahead of me. It flew out to ice, then S to a rock (at 8' from edge lake) at station 25+100.

Station 21 and 22

Station 23 mink E to W across road at 23+20'

Station 24 Owl left 9:33 at ~~24~~ 25+100' when I was at 24+150'. It flew out over ice & water and alighted on rock 8' from edge lake at station 18 to N. While it passed by its wings touched the water several times. It gained 15' elevation at times but sailed or glided 3 inches above the water & ice with alternating wing beating at high elevation. First lateral road E at 24+150'.

Station 25

Station 26 Cannot see or hear ducks or geese nor see them.

Station 27 & 28

Station 29 Coyote to E across road, has been following on ice at edge of lake. (ice here 30' wide).

Station 30 Poro out of hole in middle of road, no entrance so must have moved among rocks of road bed or used hole before snow.

Station 31 Second E lateral up slope road. Coyote from main road from S followed up this lateral road to top of dam & over. Stride 18", each imprint in snow of both front & hind foot. . . . . Imprints measured 69x61 front, 61x47 hind foot.

Station 32

Station 33 Peromyscus 2 tracks (1 set) over & back. Peromyscus single track to E. Coyote left E at 33+100.

Station 34 At marker with enlarged 3' high cement cap.

Station 35 & 36

Station 37 70' beyond to S is the 3rd lateral road going E up slope.

Station 38 Mink from W to E. Tracks concentrated among boulders on E side. Another mink 20' beyond S on road converged to same area of track concentration mentioned above.

Station 38 + 60' mink crossed road to W.

Stations 39-40-

Station 41 fourth lateral road & last one about 100' S of Sta. 41

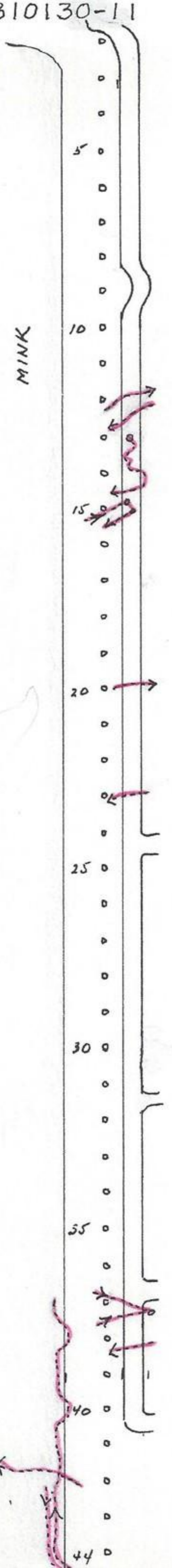
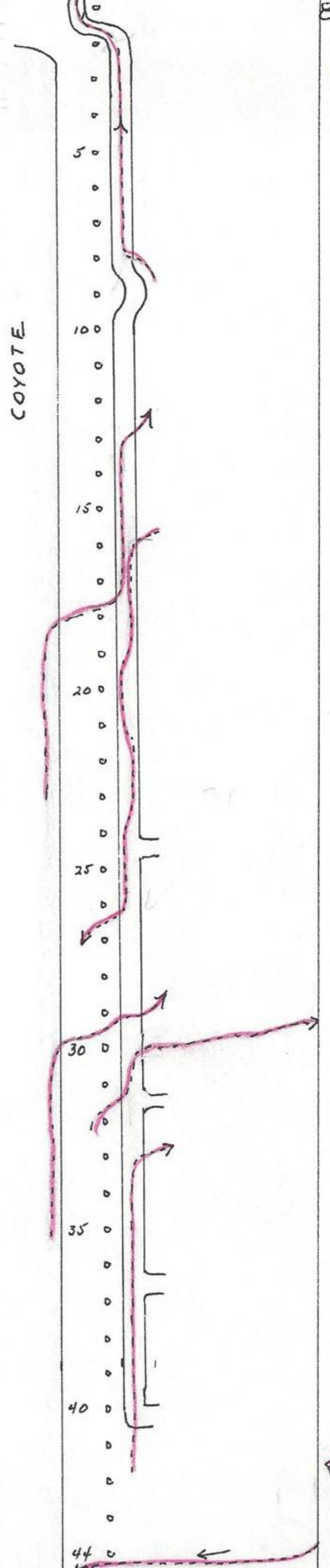
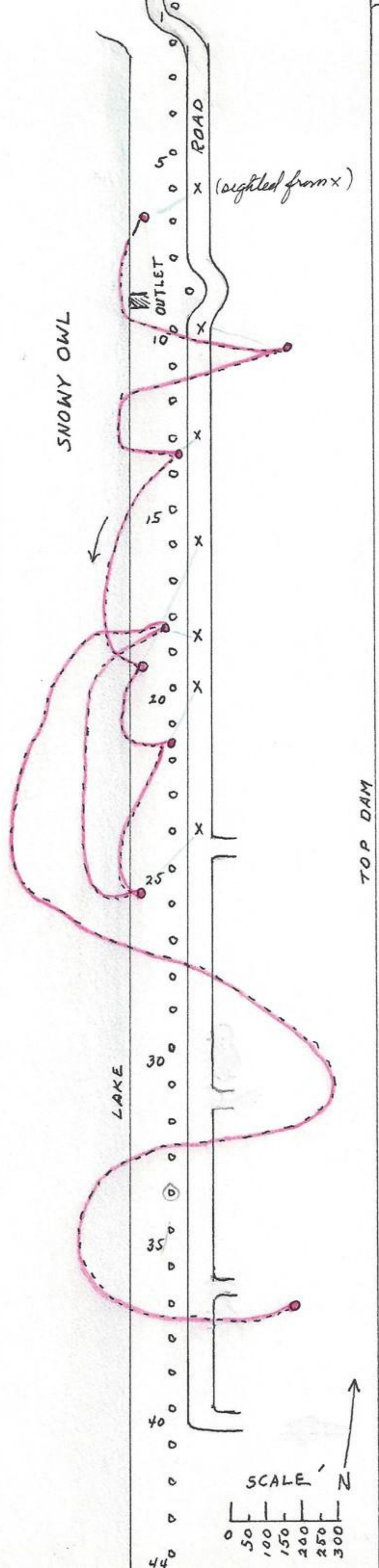
Station 42 mink left edge of lake and went W onto ice for at least 250'. water another 50' beyond but could not tell if it left ice for water. On ice at edge of lake mink a scuffling marks (1 sq. yard) on snow by legs as if fighting or playing with another mink. Set tracks from S along ice.

Station 43. mink actively arcing logs on beach and indicate exceleration of activity as if ferreting a Peromyscus. Another log on ice showed mink at pressed head into snow along log as if looking for water.

Station 44 mink tracks from 42, <sup>all</sup> along ice & snow at edge of lake and finally into grasslands beyond 44 marker. Trail from <sup>S</sup> wedge rocks of dam in grasslands with 2 Coyote tracks from top of dam down to lake to point 600 to SW. These two tracks measured: 81x67 front, 67x50 rear foot for largest Coyote and ~~66~~<sup>77</sup>x52 front, 53x40 rear foot for small Coyote. Along trail thru grasslands at edge of lake to point (600') 1 Poro & 1 Reithrodontomys tracks, no mink.

On return to car followed shore line on ice from 44 to 3rd lateral (from N) and found continuous mink activity of 1 and 2 mink. Nothing between 3rd & 2nd lateral road. No fish activity. at sta. 18 snowy owl left when I was only 55' to S of it at 11:00 A.M. & flew past me over ice to lakeward. It gained altitude 150' high and flew first S over rocks of dam then W onto lake area and finally east to alight 1/2 way up slope of dam at sta. 37

The sun was straight in back of me and the owl had its eyes almost closed but facing me. The nearer I got the wider its eyes were open and at 55' they were circular. It turned its head lakeward, then back to me & then left. I had noticed that when the owl alights either on rocks, logs or ice it does not change position until displaced. Height water 874.8. Most holes in road not used but mink had investigated several. Returned to station 1 at 11:47 AM. Temp at end of trip 27°F. See movement diagrams next page. In summation: Average distance snowy owl left ground on my approach on trip 7-5 on dam was average 459 feet (200-800). On return trip with sun at my back and difficult for owl to see me I was able to approach within 55' before it left. Only one time for about 50' did it use the road but always flew to the lake before moving up or down. I have never seen it more than half way up slope of dam. It used are between road & water where most of the logs & debris is located. The coyote tracks seemed very fresh but could have been made any time last night. I would guess there to be from 5 to 7 coyote represented in the area, most of them travelling north and finally E over dam. The edge of the lake that supported ice and some snow and the road seemed to be the routes travelled most of the time and these the walking was direct with minimum deviation. The mink were represented by probably four individuals, some concentrated in an area around station 15. Most of the mink were confined to area between water (ice) and roadway and just beyond 15-20 feet. I saw no evidence of mink among rocks on upper reaches of the slope of the dam. There was movement on ice and lower rocks that I was not able to conveniently identify but these cases were in the minority. The area of activity, especially the one that travelled over 250 feet toward the open water beyond the ice would indicate that the animals were indeed accustomed to and dependent on water. I had noticed that as they followed the shoreline on the ice, they would pay special concern for large logs or masses of debris and would show increased activity as if searching for small mammals that might be using the protection of the logs. In one instance it skidded to an opening at the end of a log as to surprise an occupant.



JAN 30, 1981

Clinton Reservoir, W side dam, Douglas Co., Kansas

Feb. 1, 1981

(see p. 810203-15 for *Peromyscus*)  
(see p. 811230-137 for *gambelii* - naturalist)

Checked W side of dam along service road. Temp at home at 7:00 AM 20°F. Enroute, highway 40 observed 4 sparrow hawks.

Left station at N. end dam at 9:15 A.M. Shadows off dam slope. A coyote had followed upper road to gate and then over main road dam to timber on E side overflow canyon. At 100' down from gates at head of service road, the coyote left (entered) the service road from the E. (Just a note about snow conditions, snowed in afternoon of Jan 31 (yesterday) and continued to 4" by evening then slight flurry during night. This is the main snow storm of the winter drought). Down road at first culvert 3 sets *Peromyscus* tracks down drainage and under three culvert. A second culvert at station 1 also had 3 sets *Peromyscus* tracks down drainage and three culvert to grasses beyond. Wind extremely cold and gusting from N, white caps on lake and good shore action. Between station 1 and 2 were 4 *Peromyscus* tracks. Between 2 and 3 were 1 set 4 tracks and 7 individual tracks going across road.

Station 3. marsh hawk

Station 4 one set 4 *Peromyscus* tracks, 3 individual tracks acrossing road.

Station 5 2 individual tracks of *Peromyscus*.

Station 6 End of *Peromyscus* track. I am surprised that the mink are not hunting this area.

Station 7 Waves influenced action of 60' of ice shoreline.

Station 8-9-10

Station 11 mink crossed road <sup>from</sup> W then travelled S on road for 85' then W off road to reenter 175' beyond, thence S.

Station 12 2 mink crossed road to W.

Station 13 1 mink from W across road.

Station 14-15-16-17 mink left and reentered, thence S

Station 18 2 mink left E from travelling from S, + N.

Station 19 above still from S.

Station 20 2 mink converged, one from S & one from N, a third left to W. all converged at hole which had been used to enter & leave, at E side road 2' from edge among rocks. A 2 yard area compacted with tracks as if scuffling or playing adjoining hole.

Station 21 One mink from S left, one from N, <sup>continued</sup> off road, a third from S.

Station 22 1 set mink tracks from S to E, <sup>then</sup> another from S.

Station 22 (continued) 2 *Peromyscus* feed on seeds of weed, mink also checked weed stack above snow and deviated 18" from a straight course in road. There will be places where mink travel 60' without deviating from straight course of normal gait.

Station 23 mink to N. 2 *Peromyscus* tracks.

Station 24 This station is 100' N of first lateral road that grades up slope. mink to N. 3 *Peromyscus* tracks.

Station 25 at 25+60' mink E to W then N up road.

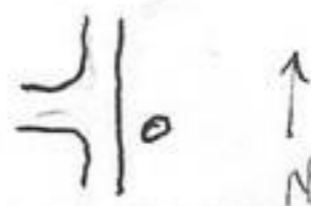
Station 26 mink off road to E from travelling N. Tracks N along beach.

Station 27-28

Station 29 Can see tracks near edge of dam of mink travelling N

Station 30

Station 31 at 2nd lateral road.

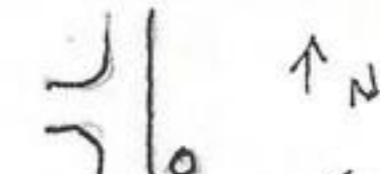


Station 32 -33

Station 34 Can see tracks going N along beach, marker capped with cylinder

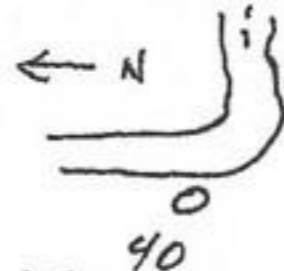
Station 35 2 *Peromyscus* tracks.

Station 36 Lateral road to E, 2 *Peromyscus* tracks.



Station 37-38-39 ← N

Station 40 Coyote to E. 70 x 53 and 63 x 47



Station 41 *Peromyscus* track.

Station 42 Coyote from S

" 43 " " "

" 44 " " "

Arrived at 10:25 or 1 hr 10' trip.

Continued S along edge of lake to first point. Wave action best here placing fragments of ice on beach by an individual wave and then subsequently eroding it back.



along this trail to point from station 44 were 6 *Peromyscus* tracks some following gullies.

On return trip followed upper cement markers on E side of dam to get out of wood & to see if mink had crossed over dam to gain Wakarusa River. They may be congregating on W side of dam as if the dam might act as a barrier in the movement of mink down stream. 3 deer tracks cross W end dam and followed E down slope to fields. Tracks 72, 64, 64, used cement markers as stations but these do not correspond to

same position as on W side. numbers starting from 1. Redtail at juniper point to SE. Bald eagle 10:50 AM flew over middle of dam from E to W at about 50' higher than dam. Deer continued N to no 10 stake then E. At station 3 a coyote urinated on cement marker and then scratched grass and snow toward urination spot but not accurately. Examined roosting cup in snow 4 inches wide + 3 inches deep with grass partly covering above. The coyote mentioned above entered route of markers from the SE at 1+100'. Stride most of the way 18 inches. It continued to 3, then to ditch below where it followed N the entire distance observed, walking first on one side, then the other and sometimes in middle <sup>urinated</sup> at 4+175' it again urinated but this time on top of ditch and again scratched grass & snow but ineffective in covering urination spot. This is a distance of 275 feet since last urinated. It left at station 5+100 and went to top of dam but I could not tell whether it continued N or S on upper dam road. At station 10 and 11 the marker is in middle of drainage ditch, no 11 is also no 11 from the marker at outlet. There are 8 markers N of this one (which is capped with cement cylinder) to end of dam to N. On return home via parkway, noted 3 sparrow hawk. (see next page insert for distribution on dam)

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
Feb. 1, 1981

First tree sparrow at feeder. Single individual,

Feb. 2, 1981

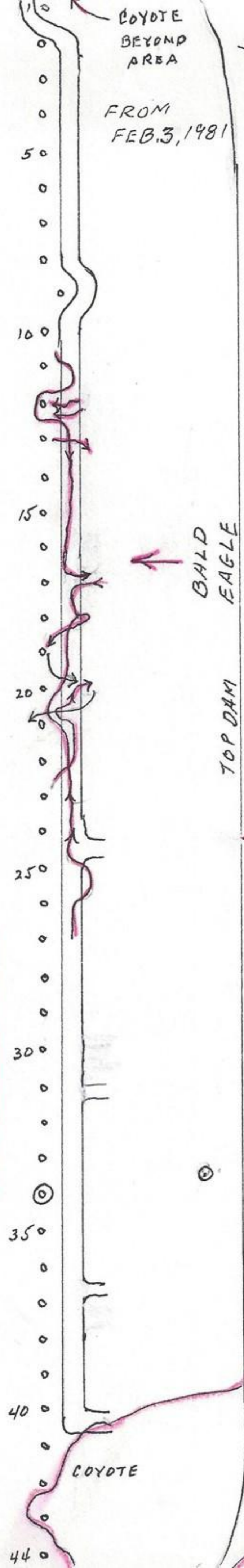
Another tree sparrow at feeder. The house finch visits feeder a short period each day. In the last week there has been an increase in goldfinch and a slight decrease in pine siskin. <sup>(2)</sup>

Clinton Reservoir, W side dam, Douglas Co., Kansas  
Feb. 3, 1981

checked tracks along service road at base of dam. The snow that came Jan 31, 1980 is still on the ground and the cold weather has kept the original cover with not much depreciation of the snow. Tracks still visible of Jan 31. Will record these tracks plus new ones made since that time which

MINK (RED) EXCEPT DEER AND COYOTE

ICE OF LAKE WATER



[INSERT FEB 3, 1981] SEE JAN 30 & FEB 1 1981

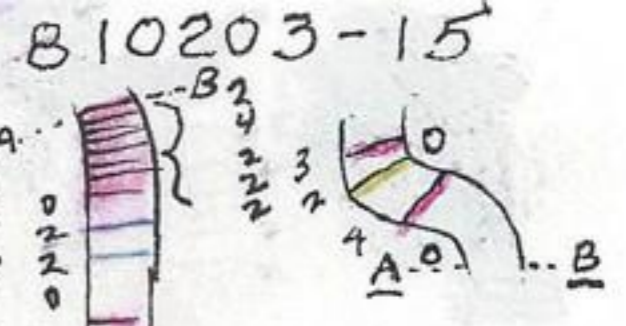
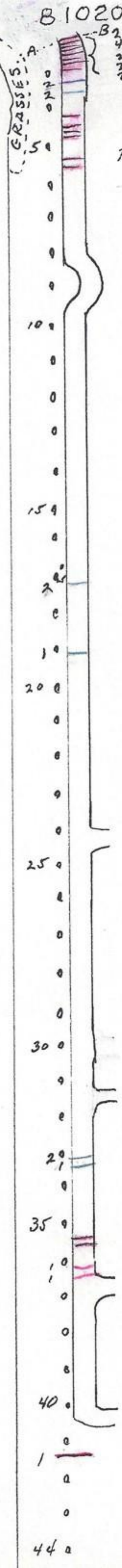
BALD EAGLE  
TOP DAM

COYOTE

3 W.T. DEER

COYOTE

PEROMYSCUS MANICULATUS  
RED = FEB 1, BLUE JAN 30, 1981



not 30  
not 3  
still 1



represent the additional tracks of night & day of Feb 1 and 2. Left car 4:17 P.M. Snow had drifted at the point but tracks still visible. 2 sets deer tracks in front of gate as well as a coyote trail following same direction. Beyond gate some coyote tracks as Jan 31. at 4:20 station 1. 30 sets of Peromyscus in concentrated paths back & forth across road. 2 long-tailed weasel, 2 Coyotes (new). Sta. 2 15 Peromyscus tracks, 16 trails in one crossing. Sta. 3 9 Peromyscus Stations 4 11 Peromyscus. Sta. 5 12 tracks averaging 3-4 tracks per crossing. Sta. 6 2 Peromyscus. There is grass to W associated with these Peromyscus stations 1-6. Sta. 7. Ice along shore covered with smooth ice from spray.



old piles  
of broken  
ice fragments covered with smooth ice from  
spray of waves to 6' up shore.

Sta. 8. Sta 9. Sta. 10. The open water of Jan 31 now refrozen except open lead from S end dam to about north end of dam about  $\frac{1}{3}$  distance across lake. The lead has approx. 5,000 ducks and 18 Canada geese.

Sta 11. first mink to S on road to 50' then W off road (tracks of Jan 31).

Sta. 12. 2 mink E to W (old). One mink onto road from W then S at 12 + 150 (old).

Sta 13. mink continue S (old) and one W to E (old). Peromyscus 13 + 100' of 3 tracks. One mink S from W then E 20' (new)

Sta 14. mink going south (old). one 14 + 180 to W back at Sta. 15 then S. (new)

Sta. 15. 15 + 100 mink to W. <sup>(new)</sup> one from S (old)

Sta 16. Crow, Crow.

Sta 17. 1 E, one W (old) 1 E (new). mink from N to E + returns to S.

Sta 18 one E, one E, one W (old old).

Sta. 19. 3 mink in rd one of which is (old). 19 + 5' now 4 mink 19 + 160 now 5 mink 1 from W (all new)

Sta 20. 1 N, one E, 1 E (all old). 16 new tracks of mink all radiating to old den at edge of rd. (all new).

Sta 21 2 mink N (old.)

Sta 22 2 mink N (old), one mink from W to N then E.

Sta 23 1 mink N (old), 2 mink N (new)

- Sta. 24 Peromyscus tracks, mink to N (old), 1 mink to E up first lateral road to base of <sup>large</sup> rock on last steep grade then N. It did not go over road on top dam.
- Sta 25 25+50' mink W to E (new) one from road to E (old)  
25+100' mink from S and out to E (new), 25+110' mink E to W.
- Sta. 26. mink to N (old)
- Sta 27. crow, mink to N (old). mink N at edge of ice.
- Sta 28. Sta 29. Crow
- Sta 30 mink W to E, (new)
- Sta 31 marker low in racks + difficult to see.
- Sta 32. Sta 33.
- Sta 34 mink E to W (new). This marker capped by 1' x 3' cylinder of concrete. The large copper marker near top of dam is about at 33+110 ft. and may correspond to one on E side dam
- Sta. 35 mink going along beach from here to at least marker 27 (old + new).
- Sta 36 The lateral (3rd) is at about 36+100'. at 36+50' mink E to W (new). at 36+100' mink <sup>(new)</sup> crossed lateral S to N about 40' E of main N-S road so they use slope up that far but even to top ice some cases. Most tracks however are <sup>not more</sup> less than 20' E of road up grade.
- Sta. 37 37+100' mink W to E (new)
- Sta. 38 Crow, crow, crow.
- Sta 39 Crow. 39+100' mink onto road from W then returned same way (new)
- Sta 40. mink W to E (new). 40+100' 4<sup>th</sup> and last lateral. crow,
- Sta 41-43 along lowest debris level just 3'-4' from edge 2 coyote (one old) and (one new). Crow almost continuously and concentrated actively, mink tracks numerous and concentrated
- Sta 43-44 Coyote (old), Coyote (new). Arrived Sta 44 5:37 P.M. at about 10<sup>min</sup> before sundown which is gorgeous on <sup>new</sup> ice covered lake.
- Trail beyond to point with no mink or coyote trails. Sundown at approx 5:47 P.M. 200 mallards over dam from E. 5:52 P.M. 300 mallards over dam from E. Both groups to head in lake. Arrived mink den at Sta 20

but no activity (sat nearby for 5 min) nor did I see any other action along the way. Trails in snow still visible, arrived sta no 1 at 7:20 P.M. Trail not discernible in faded lights. Car 7:23 P.M. It was determined that there was a decided increase in activity at den site, Sta 20 and increase in activity between #0 & 44 where there was little Jan 31 but an active spot on Jan 30, 1981

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
~~in summer~~, ~~winter~~, ~~spring~~, ~~summer~~  
 Feb. 5 1981

Cooper hawk flew thru yard at 9:15 A.M. about 4-5 feet above ground. Entered SW between house & pine, thence to NW corner Thompsons and alighted in bushes, thence NE & E thru 3 yards and then 50' high to NE & then N. There were no birds in yard at the time but earlier at 8:30-9:00 A.M. there were 92 pine siskin, 8 goldfinch, 2 tree sparrows, 4 juncos. 50 Eng. Sparrow & 23 starling.

Feb. 10, 1980

Snow started yesterday afternoon and continued all night and today with high winds (up to 40 MPH) drifting snow in all directions with freezing wind index of about 45°F. A dramatic increase of birds at feeder. Goldfinch have been increasing since a week ago but do not compare with pine siskin population, now at 12 Goldfinch and 60 pine siskin. Tree sparrows increasing and now 4 or 5 at feeder but nothing compared to previous years. Juncos increased, same ♀ 2 ♂ purple finch, 2 downy, 80 Eng sparrow. 25 starling. Some reactions:

juncos, Harris sparrow scratch.

Following rest on right foot and draw left up under body: Eng sparrow, tree sparrow, juncos, cardinal, Harris sparrow.

Birds that do not draw up feet & legs but squat down on both feet held on the ground: goldfinch, pine siskin.

When birds all leave feeder on impulse the pine siskin, tree sparrow and juncos will remain as a single individual & continue to feed.

Pine siskine when left along stretches body and makes body smaller. head held higher.

Juncos displaces goldfinch, pine siskine displaces goldfinch.

At 4:00 P.M. a sparrow hawk ♂ arrived and alighted on woodpile 10 feet away. All birds left area and did not return for 25 minutes. Hawk left after 1 minute and flew 300' as if hunting.

402 Yorkshire Dr., Lawrence, Kansas

Feb. 11, 1981

This A.M. temp  $12^{\circ}\text{F}$ , chill index  $-24^{\circ}\text{F}$ , no wind, <sup>clear.</sup> This morning both goldfinch and pine-siskin drawing up feet, one at a time into feathers of body. This is done while bird on belly and done awkwardly in contrast to other birds. Most of the morning birds spent sunning themselves facing sun.

Clinton Dam, Douglas Co., Kansas

Feb. 12, 1981

Survey W side dam full length (see previous survey + maps) Left sta. 1 3:25, temp  $30^{\circ}\text{F}$ , wind from SW. Sparrow hawk at gate where I park the car and 2 flying together at sta 7. 150 ducks, mainly mallards in open leads in lake. Sta 44 at 4:25 P.M. Wind that forced snow drifts on lake ice and from shore up rock slope to <sup>Survey</sup> road on dam from NNW. On return noted concentration of snowy owl feathers between 36-38, especially 37+100'. One group of 3 feathers, <sup>body</sup> together as if pulled from body (3" long). The rest of feathers about 1 per 15' and generally distributed. As on faces south there is no snow visible among rocks on slope (rarely sign of snow). As one faces N the snow drifted on lee of rocks occupies approx. 50% snow. Melting today has reduced snow by 30%. Returned to car 5:20. Because of winds on lake + dam the snow had been removed from survey road in all places except one or two places that it remained in road for 10-15' feet. This was a surprise to me as I had planned to check tracks in the snow today.

Lawrence

402 Yorkshire Dr., Douglas Co., Kansas

Feb. 14, 1981

Immature eagle noted soaring at what would be Petersen Road and Iowa. A small plane moved in above it by 100' or so and the eagle set wings and glided straight over our house and on to the SW. This afternoon another eagle flew E over same area.

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas

Feb. 15, 1981

James Robert took the remaining minerals to Mary Bee in Casper, including some 20 boxes. These are all catalogued specimens and

many has accountability in here catalogue (except 12 specimens which I retained), These are;

no.	mineral	greatest diameter (length)
13	pyrite	86.5 mm
105	Calcite	72.6
129	Calcite	190.0
149	pyrite	82.0
176	Copper	72.0
182	Calcite	110.0
244	calcite	72.5
403	pyrite & quartz	69
404	pyrite	71.8
427	pyrite	71.0
437	pyrite	188.0
648	pyrite and quartz	49

Specimen 437 in of museum quality, both in size and structure.

402 Yorkshue Dr., Lawrence, Kansas.

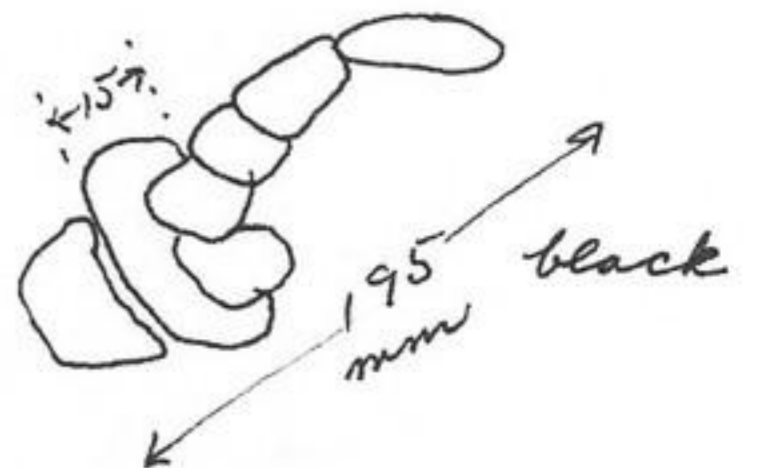
Feb. 15, 1981

13 cedar waxwings fed on red berries of the bromberry bushes. These berries have been relatively untouched this year. Stayed for approx. 30 minutes.

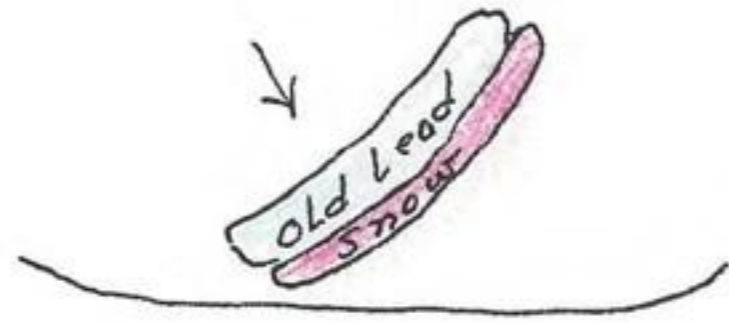
Clinton Dam, Douglas Co., Kansas.

Feb 17, 1981

Sky clear except few high clouds. Wind from W. Left gate on main road at 2:39 P.M. Sta. 1 at 2:43. Lake open around edge of bay and base of dam for 300', rest lake frozen except middle. Snow gone from dam, some few spots on ice in lake at north part of reservoir, more to S. Few spots open around outlet especially on warm S side. Water level 879.8. 3:05 55 ducks (mallards) from middle lake to E. over dam. A strip of open water overcraging 5 feet but discontinuous about 20% of way. Except in a few places where the water is open to bottom of shore, the water is standing on ice. Shore ice of ice fragments piled and sealed with spray (old ice 6-8 x 3' high) is now reduced 75%. Several good holes in road between Sta. 15 + 100 and sta. 16. Coyote dropping <sup>(dark)</sup> measured 16 wide & 175 mm long. Scratch lines associated. This is at sta. 17 + 175 at sta. 19 + 180' measured scat of mink, dark black, some Sigmodon-like hairs. At this same place is the first pioneer Andropogon on dam (3" high) in middle of road. Have noticed snowy owl feathers about 1 per 200' but rare.

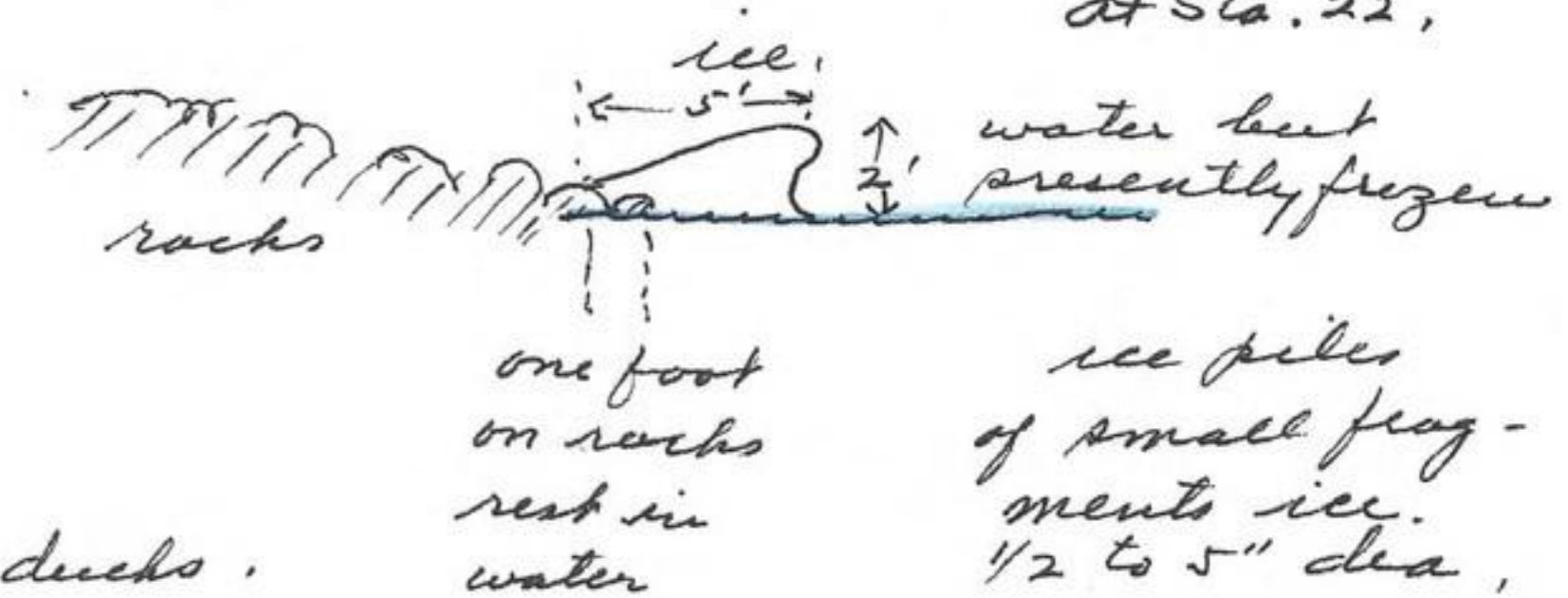


at sta. 20 examined mink den (4 feet 5 of rock with same no. In hole protected from sun was smooth ice. It did not seem to be used and may have been a temporary den while mink were in dam. Placed 5 sticks in front of hole to see if animals might still be using den. no odor. Coyote tracks in muddy soil all along road, both vac. Some long drift lines of snow on ice and have accumulated as a result of lead freezing and thus allowing snow to easily drift to old ice. also there were snow drifts on ice where rough ice had accumulated on sides of old leads now refrozen. The rough areas capture moving snow. Examined ice piles along edge of lake against dam




at Sta. 22,

at Sta. 24 2 crows flew over dam to ice and after drinking left to W to where ducks were resting. 3 gulls also with ducks. Snowy owl feathers still every 200' or so.



at Sta 25 2000 ducks (mallards) flew over dam to E. at sta. 25 + 60' good digging on W side of road, mink scat at sta 31 + 30', largest diameter 12, 60 length, end curled. At 32 + 150 mink scat 15 wide & 150 mm in segments, at sta. 34 began open water but still 500' out from shore, then open all across lake to W side. at 36 + 150 snowy owl feathers (3 together as if pulled from skin. Some ice and snow in deep recesses of rocks. From sta 36 to 38 snowy owl feathers <sup>(single mainly)</sup> every 20 feet. These feathers have been stopped by <sup>dry</sup> weed stems mainly on W edge of road. I examined the rocks between the road & lake between 41 and 34 sta. but did not find any concentration of feathers like a prey kill. I am of the opinion that the small down feathers are from preening of owl and the area of concentration is place where owl mostly stayed during the winter. However it would have been a precarious for the owl to have remained with the increase in mink activity on the dam.

Logs along the beach have been abraded by action of waves during ice-free periods of fall and look like beaver gnawing in many cases. Returned to N end dam starting at 4:20

4:22 8 mallard to E over dam. measured dead shad 70 stand. length. Water 39°F, air 68°F at 4:30. Water moving N along shore in fracture leads at 1/2 foot every 6 sec.  
 4:44 60 mallards to E. 4:46 18 mallards to E, 4:47 14 mallards to E. 4:48 2 mallards to E. Of the 2000 ducks in lake when first observed on survey, only about 20 ducks and 45 Canadian geese remain. Coyote track in mud measured 75 x 48, 83 x 50; another set 70 x 44, 80 x 52 rear and front respectively. Another mink skat at 24 measured 14 greatest width, <sup>(dia)</sup> 190 mm total length.  
 5:05 gulls calling. at sta 14 another mink scat 10\* dia + 150 mm length.  black no deer tracks. Its peculiar that mud forms from otherwise rock environment. From my position at sta. 1 at 5:32 P.M. notice geese left center lake and flew E over dam gradually organizing formation. Sun about 1/2 before setting. Ducks generally leave around sundown but today started early and left gradually throughout afternoon. Car 5:40 P.M.

Bonner Springs, Kaw River, Wyandotte Co., Kansas

Feb. 18, 1981

Checked sand bar 1/10 mi. E Bonner <sup>Spring</sup> highway bridge, S side. more rocks here than in Lawrence area which is almost all sand and small gravel. Great Horned owl left from under bridge and flew N across river to alight in tree. Considerable noise on this bridge. Beaver tracks common and 4 places where they had left river, moved across sands to bank and returned. 21 other tracks on and off sands to 10' from water where there was considerable track imprints localized at put-in and take out. 8 dead shad, one 6 inches long. Collected:

810218-1 Fat (flint) scraper. may be early man. 72.1 mm greatest width

810218-2 Tarsal or metatarsal bone. 48 mm g.w.

810218-3 Productus fossil. 64.3 mm greatest width

402 Yorkshire Dr., Lawrence, Kansas

Feb. 20, 1981

There have been approx 6 pairs of Eng. sparrows males + females in pairs and 1 pair of starling competing for a nesting place in an 8 chambered martin house. I have not noticed any courtship among the species but today the starling have been singing or chattering. Cardinals have been singing the last week but especially the last 2 days.

Perry Reservoir, Jefferson Co., Kansas  
Feb. 22, 1981

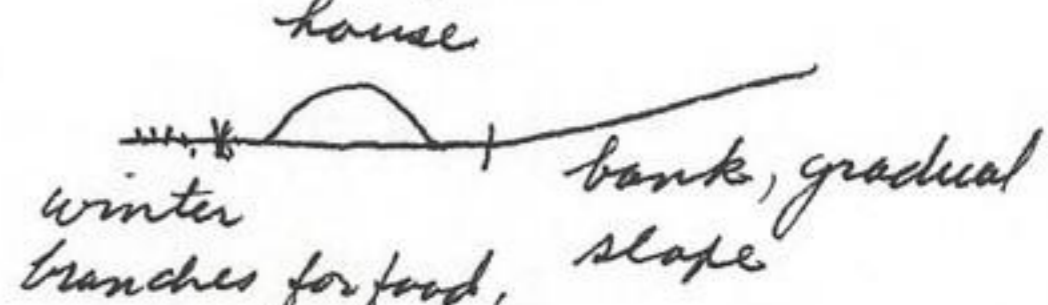
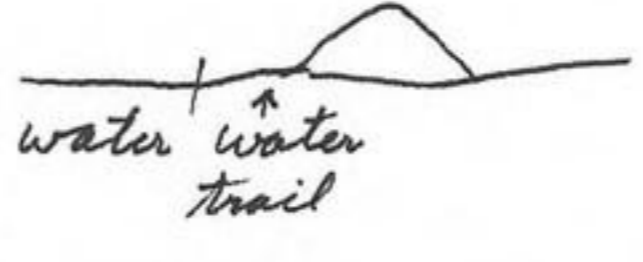
Annette and I to reservoir to check on bald eagles. Enroute from just up Kaw River from Kansas Power and Light, made binocular survey of river at 6 places up to Leecompton we did not see eagles. At junction of road to Perry Reservoir at highway 40 noted an immature '110 mi. N of 40 on Delaware River. It dropped down to within 10' above river and then continued N.

The most dramatic thing about Perry Reservoir were the numbers and distribution of the ring-billed gulls. I would estimate 2000 and generally distributed throughout the lake with a tendency to congregate in bays and S end of shorelines. Wind strong, temp. in 40's and when exposed to it the hands became chilled and uncomfortable. Although I did not see many fish captures, I presume they were feeding on winter kill shad and other kinds of fish. The gulls were definitely using the winds to survey the lake. At times I thought I could see a tendency for the gulls to move N but this may have been a factor of wind. There were always more gulls at S ends of bodies of water and overall more were observed at S end of lake than at Paradise Point area, while most of them were in the air there were at least 10 rofts of them, each roft varying from 10 to 80 gulls. Of specific numbers, from Gap Point at boat ramp counted gulls in swing of binoculars from point NNE from Gap Point to E end of boat ramp as 196 gulls. From dam from W side of lake to marina as far as glasses 7x could carry, 360 gulls. In Bay E of Slough Creek bridge (from bridge) 210. many more up bay to N where we observed the greatest congregation of gulls.

Photo 810222-1 of Bay S of Gap Point  
Noted 82 Canada geese flying N over Gap Point, very few ducks of any kind and no bald eagles. at boat ramps on W side lake at second peninsula took 4 photographs of wave action on rocky shoreline, nos 810222-2, 810222-3, 810222-4 and 810222-5. usual birds around lake but rare, included-

in red tails 3, sparrow hawks 3, meadowlark, bluejay, robin, slate-colored juncos, 1 horned lark, cardinal and yellow-shafted flicker. The two beaver houses on W side of Bay Slough Park, one in pond at Gap Point and the other in first bay to S, are both associated with the bank.

House typical of houses that stand alone in water in contrast to bank house.





1/10 mi down Kaw River from Oakley Creek, Douglas Co., Kansas  
Feb. 23, 1981

Annette and I to sandbar to check for artefacts and bald eagles. At 10:45 A.M. an immature <sup>bald eagle</sup> circled down river about 150' high over our position. It continued down river. From sandbar which is uncovered more than I have ever seen it was exposing larger gravel and rocks at receding sands adjoining present river. As was true of yesterday, strong winds blew sand on sandbars and in bottomland field. The Brune property is blowing seriously and covering several acres with drifting sand. S banks still muddy from winter moisture.

Collected 3 bones from here:

- 810223-1 Apis fused with 3rd Cervical vertebra - Pleistocene or very old moose.  
 810223-2 Cannon bone, Metacarpal or metatarsal.  
 810223-3 distal end of radius.

3 ring-billed gulls resting on sandbar but left when eagle flew overhead.

14/10 mi. down Kaw River from mouth Oakley Creek, Douglas Co., Kansas

Feb. 24, 1981

Checked sandbar for bones and artifacts. Remarkably few bones on a sandbar that is exposed more than it ever has been before. Collected one leg bone no. 810224-1.


The outer edge of sandbar had been greatly modified by ice action, some places as far as 60' inland by smoothing sand irregularities, grading banks, pushing mud & sand into ridges and creating an unusual design on the surface.

Some deep grooves created by small objects that by their own weight



could not have created the groove so explain it by object being held securely in ice sheet and with the added weight made the deep channel. Only one mass of ice 3' x 3' by 1 inch thick on bar in protected part of river on S side. No other snow or ice in area. From this sandbar can see 5 bald eagles, 3 adults 5/10 mi. down stream from mouth of Stone House Creek, <sup>on N side in trees</sup> 1 immature on S side some distance down from mouth Stone House Creek and 1 adult 1 mi. down <sup>Kaw</sup> on S side in trees from Stone House Creek. They remained in same position from 1:00 P.M. to 3:00 P.M. 18 golden eye ducks in river in one group, 30 ring-billed gulls in one group. Tracks of beaver, mink, coyote, muskrat, raccoon, geese and crow on sandbar.

402 Yorkshire Dr., Lawrence, Kansas 810305-25  
 March 5, 1981

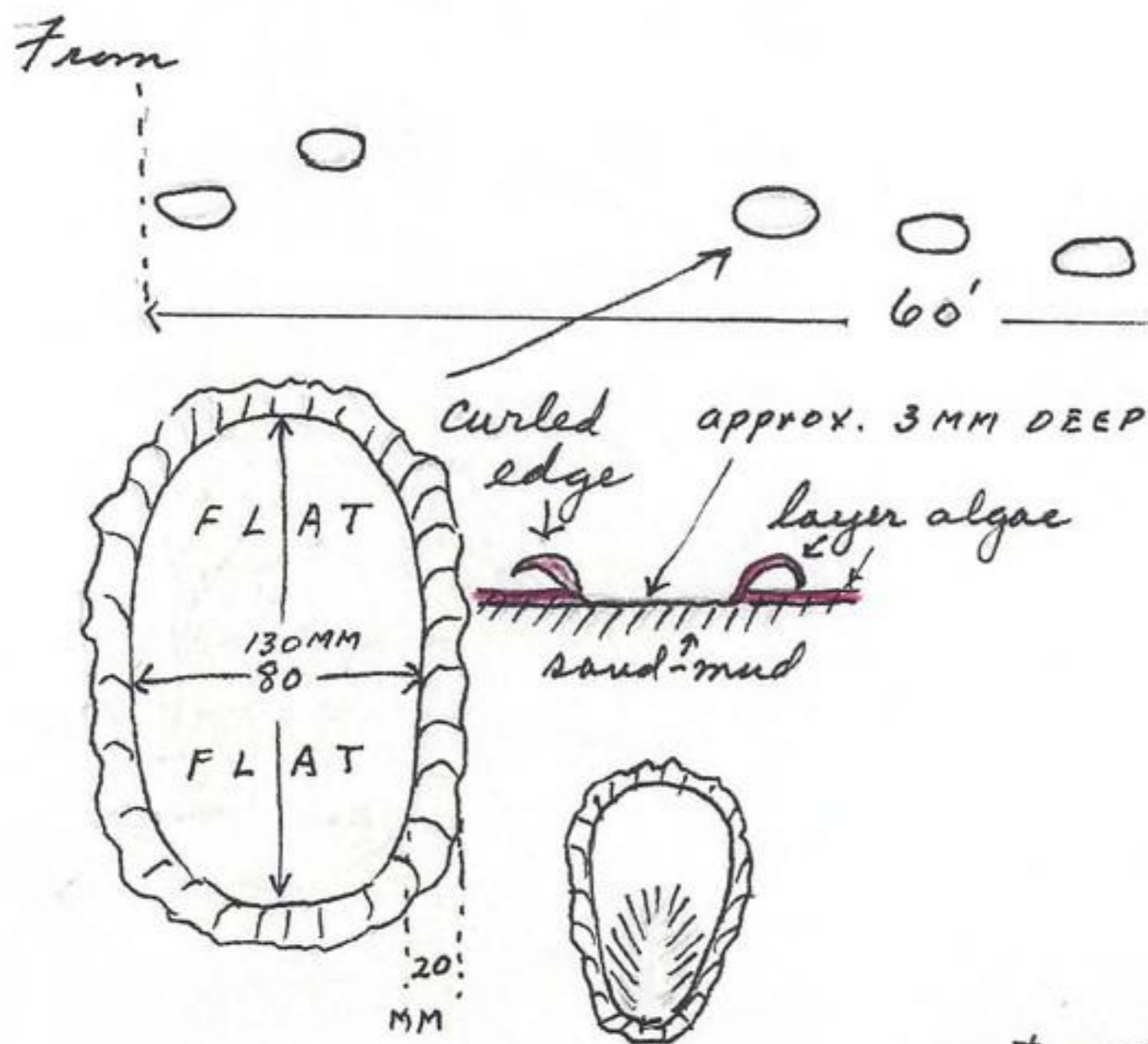
16 Cedar waxwings fed on cranberries at home. Ordinarily these berries are about gone by this time of year. There also were 18 pine siskin and 10 goldfinch. In the last 3 days there has been an increase in activity of birds. Last week the goldfinch were in the majority, today the pine siskin are predominate. also at feeder were 20 starling, 11 Eng sparrows, 1 slate-colored juncos, 2 downy woodpeckers. The robins seem to be pairing and there is considerable fighting among males. Pairing of English sparrows has been going on for the last 2 weeks, copulation last week and active nest building since last week. One starling with stub leg at junction tarsus and toes . It was capable of moving around without difficulty.

1/10 mi. E mouth Oakley Creek, Kaw River, Douglas Co., Kansas  
 March 11, 1981

Inspected extensive sandbars on S side Kaw River from at least 1/10 mi. W to 1/10 W of above locality and at its widest point 4/5 way across river. Collected:

- 780311-1 buffalo cervical
- 780311-2 " rib
- 780311-3 cannon bone
- 780311-4 Cannon bone
- 780311-5 skull bone
- 780311-6 phalange.

most of the bones were from recently exposed sands and muds along river. Leampton measurement <sup>of river</sup> was, as I remember 1'6" deep at bridge.



Algae of green, red, orange, blue and all exposures of the river bottom + ponds or pools of water except where there is moving sands on bottom where fast currents or obstacles disturbs flow of water

water clear.

current

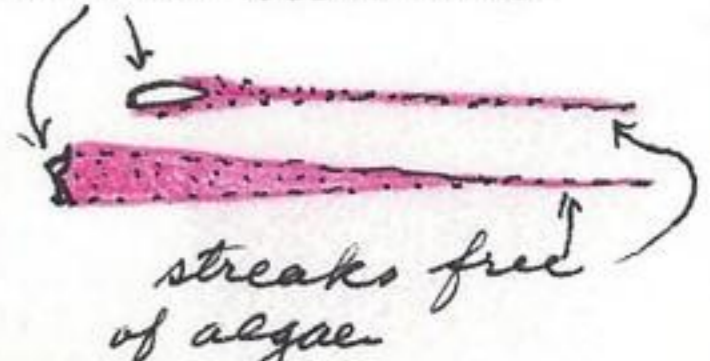


Photo 810315-1 end or lee of large sandbar at above.

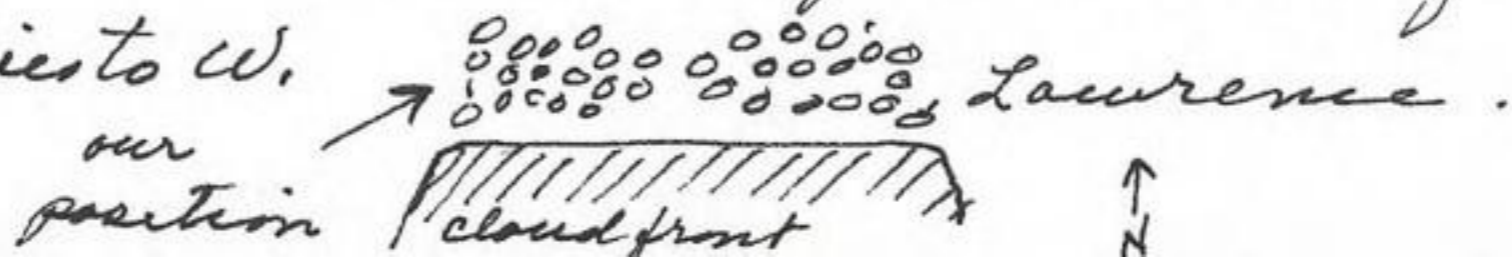
Lawrence, Douglas Co., Kansas

March 28, 1981

Left for vacation to Provo, Seattle, Casper. at mileage 29557.2 at 12.00 P.M. noon, <sup>Temp 58°F</sup> High wind. Completed check of equipment last night. Annette and I made trip with mercury marquee and Starcraft trailer. Will keep complete census on entire trip which includes all recognizable road kill and all birds and mammals within viewing area which for practical purposes is areas 150' along each side of road and beyond in case of some raptors. Each observation is correlated with mileage and in case of more than one observation for a particular mileage reading will infer that other observations were continuous and usually would extend not more than  $\frac{1}{10}$  to  $\frac{2}{10}$  mile beyond the original mileage given. It is not practical to give mileage for 2 or 3 consecutive observations that are more or less continuous. Focal points such as county lines, rivers, junctions and town are given to more exactly place the point of observation. Mileage for town if not exactly specified mean the middle of town (these are for small towns where the center is defined by several commercial buildings or at cross-roads. City limits, Post office, and other prominent buildings are used. No birds are recorded from within the city limits of towns nor are starlings or English sparrows recorded except as summation observations. All raptors are recorded by mileage so that distribution can be plotted to + or minus less than  $\frac{1}{10}$  mile. This also applies to all other observations. Time and other weather conditions are periodically given. These observations can be used to determine population and distribution of animals. It is recognized that time of day, wind, etc is a factor that must be adjusted in the census results. It is hoped that one day I will have a recorder that automatically registers mileage, time, temp, wind etc with each observation.

Sparrow hawk at farmers turnpike and turnoff to Lake View road. also opossum road kill. Cultivated lands all in green grass or vegetation mainly 2" to 3" high. Browns of winter grass still dominant color. Winter wheat 5-6" high many fields plowed. native trees are without leaves but only slight greenish cast. 3 crows in trees find it difficult

to balance in trees because of high winds. 574.2 Shawnee Co. line. On W side Topeka on Wanamaker exit a pintail duck flying down interstate about 60' high, and flying with difficulty against the wind. Mission Creek sky changed from 90% clouds to 20% clouds to W. 348 m.p. now entering Flint Hill area. Birds rare because of high winds. Eroded areas now becoming stabilized with grass. 601.3 Wabunsee Co. line at 1:10 P.M. 603.3 = 344 on mile post. Birds rare today. 607.1 striped skunk road kill. There is an unusual amount of slippage on road cuts. Open sky was just an interlude to more cloudy skies, now back into 98% cloud cover at 608.1. At Vera cut off or exit the valley S into Flint Hills is green, the valley walls are brown. 609.6 redtail hawk. 614.5 Papies turnoff. Off road to lunch and back again at 2:22 P.M. No blue in sky to W and darker base to cumulus clouds than earlier today. 620.3 striped skunk road kill. Farm ponds still low. 622.3 2 meadowlarks. 625.2 2 crows flying with W to E at great speed and maneuverability. Few drops rain on windshield. Field to N with juniper over 100-200' apart and 2-4 feet high. 626.2 prairie reddish brown with green grass emerging thru old stands of grass. 631.8 Geary Co line. (2:50 P.M.) 633.4 2 mourning doves. 639.8 3 crows at Mc Dowell Creek. Except occasional tree with greenish east, most trees are without color or leaves. 644.1 opossum road kill. Hill E of Marshal Field that always was brushy and good grass is now overgrazed & brush disappearing, may have been burned. 648.3 Crow at Frank's Creek. 649.4 Smokey Hill River, low. Junction City turnoff a striped skunk road kill. 658.6 Hickinson Co. line sky of low cumulus clouds and dark. 663.3 meadowlark. 666.5 ring-billed gull. 668.7 redtail hawk and first sunshine in a long while. Localized area with leaves on trees, mainly willow. 682.2 Saline Co. line. 4:00 P.M. Ellsworth Co line, 723.1 Elkhorn Creek. 5:15 P.M. First grackles here. Meadowlark. State-colored juncos. Ponds dry or nearly so. Crow. 728.2 meadowlark. The front that extended W from Lawrence to the S has been continuous and we are now at point where front ends with clear sky to W.



733.1 now in constant sunlight. at 5:25 P.M. 738.0 meadowlark.  
 738.6 210 turnoff to Selvan Grove. 743.6 meadowlark,  
 743.7 Russell Co. line. 745.4 dark phase redtail hawk  
 748.3 first flock of starling (3,000). 757.3 mourning dove.  
 as we approached Russell there is increase in tumbleweeds.  
 762.0 cottontail, 8 grackles. Sundown at 8:00 P.M.  
 and took 4 minutes to cover diameter of sun. Arrived  
 Ellis and camped along channel 5 of town in  
 traditional place. mileage 29 806.6 or 249.4 mile today.  
 To

Ellis, Ellis Co., Kansas

March 29, 1981

Left Ellis 8:00 A.M. Sun-up 6:28 A.M. and <sup>approx.</sup> 3 min to cover its  
 diameter. min temp. 33°F. Fish active in channel. Crow  
 Photo 810329-1 of cottonwood trees along channel at above camp,  
 and starling & robin in area. Also fox squirrel. Sky clear.  
 29809.8 Trego Co., redwing blackbird. 809.9 redwing,  
 811.8 meadowlark, redwing 3/10 mi. beyond (males only).  
 815.4 meadowlark, redwing. 816.2 redwing. 816.9  
 redwing. 818.9 redwing. 819.7 meadowlark. no  
 wind today. Redwing. 2 meadowlarks singing, redwing.  
 822.6 meadowlark, redwing, ring-necked pheasant  
 road kill. 823.5 2 redwings. 825.0 redwing, meadow-  
 lark. 826.5 great blue heron flying S. (this at MP 127).  
 827.8 meadowlark. 828.7 meadowlark, redwing.  
 829.0 2 meadowlarks, redwing, redwing, redwing.  
 829.7 redwing, redwing, meadowlark. 830.2 redwing,  
 meadowlark. 831.4 redwing. 831.7 redwing. 832.2 2  
 redwings, redwing. Recent badger digging. 833.3  
 2 redwings, meadowlark. 833.5 Vadd Rd overpass  
 833.9 2 redwings, meadowlark, ponds nearly dry. 834.7  
 redwing, redwing. 835.4 meadowlark, redwing, meadow-  
 lark, redwing. 836.6 redwing, redwing. 836.8  
 meadowlark, meadowlark. 837.5 redwing, meadowlark.  
 meadowlark. 837.8 2 meadowlarks. 838.6 redwing.  
 redwing. 839.3 meadowlark, redwing. 839.7 redwing.  
 840.0 redwing. 840.5 Geave Co. at 9:00 AM 841.4  
 meadowlark. 841.7 two male pheasants fighting. 842.4  
 2 meadowlark 843.3 redwing, redwing. 844.5 2  
 horned larks, badger road kill, pheasant road kill.  
 845.9 meadowlark. 846.8 3 horned larks, meadow-  
 lark. 847.3 meadowlark, redwing. 850.1 redwing.

850.9 redwing, redwing. 851.3 redwing, 851.5  
 redwing, meadowlark. 851.7 striped skunk road kill.  
 853.7 exit to 211 854.7 pheasant road kill. Country flat.  
 robin. 858.3 2 redwing. 861.2 meadowlark. 863.3  
 striped skunk road kill. 864.1 2 horned larks,  
 meadowlark, cottontail road kill, redwing. 866.0  
 horned lark, horned lark. 868.3 Grinnell. 870.0  
 meadowlark, more thistle in area, <sup>am. roughleg</sup> redtail, hawk.  
 873.0 roughleg hawk. 873.4 roughleg with very dark  
 band on belly. 874.7 3 meadowlarks. 877.6 3  
 horned larks. 878.6 Logan Co. 879.4 Thomas Co.  
 bufflo grass whitish, <sup>against</sup> brown, <sup>of other vegetation</sup> clipped to roots. 882.3  
 meadowlark. 884.3 meadowlark. 886.7 redwing.  
 887.6 striped skunk road kill. Since Oakley there  
 are more badger digging than elsewhere along the route,  
 897.8 meadowlark. 899.6 striped skunk road kill and  
 2 meadowlarks. 901.2 striped skunk road kill.  
 903.8 meadowlark. 908.5 redwing, redwing, redwing,  
 redwing (all within 1/10 mi.), 2 horned larks. Snow bank  
 increasing and almost continuous along road with  
 some snow on N exposure and also in field away from  
 main road. Drifts by wind from NW. to NNW. 909.9  
 \*malfunction to 991.7 (lost 113 miles)  
 Crow <sup>↑</sup> 991.7 horned lark. Left main road at Vona  
 and checked where Chris had car in garage years ago.  
 now going W on highway 24. 994.7 3 crows and  
 3 horned larks. Snow drifts increasing. 995.7  
 flocks of 60 horned larks and first flock formation  
 meadowlark, 2 horned larks. To N land 80% snow, to  
 S less so. West of Seibert snow drift onto road.  
 30001.2, horned lark, 2 horned larks, horned lark,  
 horned lark, horned lark. 002.0 horned lark,  
 2 horned larks, horned lark. no water in creeks, horned  
 lark, horned lark, horned lark 006.1 horned lark. 008.1  
 4 meadowlarks and 2 horned larks, 2 horned larks,  
 meadowlark, horned lark. 10.7 horned lark. 014.3  
 marsh hawk, 016.4 Lincoln Co. 017.9 marsh  
 hawk and approx 150 horned larks in one group. 019.8  
 hawk redtaillike. 020.3 am roughleg hawk.  
 020.8 am. roughleg hawk. They stand almost horizontal  
 in wind. 026.6 horned lark. 028.4 am. roughleg hawk.  
 First sparrow hawk since Lawrence. 031.7 am roughleg.

Kansas border approx 954.4

033.1 Am. roughleg. 034.3 exit 371 to Genoa. 035.4  
 now going down grade from plateau. 036.6 horned  
 lark, horned lark. 038.8 2 meadowlarks. 040.0  
 horned lark. 041.1 4 horned larks. 050.8  
 Elbert Co. 053.3 meadowlark. In Lyman they had  
 a heavy snow yesterday and all the water in the  
 streets are the result of this storm, 2 horned larks.  
 056.8 2 redtail hawks. 057.8 overpass and now  
 on 86 W. To Kiowa, (3:00 059.0 2 meadowlarks  
 061.3 2 meadowlarks, horned lark, horned lark.  
 062.4 horned lark, horned lark, meadowlark. 065.0  
 horned lark. 069.8 horned lark. 072.2 meadowlark,  
 2 horned larks, horned lark. 073.6 meadowlark. 080.1  
 horned lark, meadowlark, horned lark 084.9 W Bijou  
 Creek, meadowlark. Ponds all low. 088.5 redtail.  
 090.3 3 meadowlarks. 094.6 Kiowa at 4:00 P.M.,  
 meadowlark. 104.8 Douglas Co. at Chatfield first  
 magpie on trip and (at sundown) discontinued census.  
 Chatfield Res. not open so drove thru area, then we  
 phoned Bill & Betsy to leave present for pending baby  
 but they had a choir practice <sup>so</sup> we continued to K.O.A.  
 Camp E of Fitzgimmons Vet. Hosp. & N of Calfor Avenue  
 where we camped that night. High wind. Travelled  
 392.8 miles today.

Denver, Colorado

March 30, 1981

Left K.O.A. Camp & headed N. This A.M. a cold front  
 passed onto plains E Denver with rain, hail and  
 high winds but soon ended and skies clear to W.  
 Left 8:30 A.M. Got Butane gas on Calfor and mailed  
 presents to Betsy. Mileage 30 199.4 at K.O.A. Stopped  
 E end airport and watched a cottontail feeding  
 and did not flinch when jet flew over at about  
 100' above rabbit. a sparrow hawk also hovering  
 just 100' to side of runway and was not disturbed  
 by planes. Sparrow hawk at north Glen on high-  
 way 25. 284.1 turnoff Poudre Canyon but  
 continuing N on 287 to Laramie. Did not keep list  
 of animals on interstate 25. but at 284.1 will continue  
 census. 284.9 redtail. 306.1 20 antelope in  
 swale on right hand side of road. 307.2 nest drainage

to N at bridge. 308.5 Virginia Dale, some snow on  
 N exposures but scanty. 313.2 Wyoming State line.  
 315.4 area to W is hummocky as if a Pleistocene surface.  
 316.5 to right 25 antelope one group. 317.7 15  
 antelope across valley to right, moving uphill as a  
 compact group. 318.5 top and now down slope to  
 Laramie plains. 321.3 Tie Siding. 322.7 24 Antelope  
 no young. 6 ♂♂ and 19 ♀♀. 323.0 raven. All  
 antelope have been on right hand side of road, last  
 group only 200' from road. 329.5 horned lark. Most  
 birds low because of high wind. 331.9 24 antelope  
 approx. 200' from road, right side and all hornless.  
 no young. Smoke from chimney almost horizontal.  
 333.6 30 horned larks in one group. 338.7 middle  
 of Laramie. Camped K.O.A. NW Laramie. 145.8 miles  
 today.

Laramie, Wyoming.

April 1, 1981

min. temp. last night 26°F. Wind changed from E to S  
 last night. Left 8:40 A.M. Sky clear + blue 30 345.2  
 mileage. Snowy Range completely covered with snow, to foothills.  
 Range E of Laramie has snow on upper half. 346.0 8  
 crows in cattle pasture. 348.2 horned lark. Can see  
 to S that snow lower in S end of valley and on  
 hills down to Tie Siding. Field to N as we travel on 80  
 W are pure grass (no shrubs), 349.6 raven. 350.1 2  
 horned larks. ~~Birds~~ Snow rare across plains and  
 snow there are old cornices. 352.0. 5 antelope lying  
 down on plains and very conspicuous. Alkaline lake  
 to N with water. 353.1 prairie dog on mound and only  
 one in field. 353.8 3 more prairie dogs. 355.0  
 horned lark. 355.3 At SW extension of a large  
 lake, few ducks and alkaline shores. Some  
 revelettes into lake. 356.1 horned lark 357.1 muskrat  
 on lake to right, ice around edge. 357.3 25 antelope  
 N side, some males, 4 horned lark. 358.4 2 horned  
 larks. Crossing fuel river. 360.4 horned lark,  
 horned lark. 361.1 15 antelope N side 200' from road.  
 362.1 horned lark. 60 ducks on ponds so far from  
 Laramie. 363.2 2 horned larks. 363.4 8 antelope N  
 side. 366.8 13 antelope N on ridge beyond valley.



Small in ice. 367.5 horned lark. 367.8 crossing  
 drainage divide base of hill. 369.8 horned lark.  
 370.9 Swale to S with 12 Brewer's blackbirds. 7700 ft  
 is level of snow on mountains to S. 372.7 5 crows  
 on road. W exposure slopes are highly wind blown.  
 373.7 at a grove marker. 375.6 Carbon Co. line 9:30 A.M.  
 jackrabbit road kill. 377.6 2 crows, 3 crows -  
 378.3 horned lark. 381.2 horned lark. 383.3 hawk  
 like a marsh hawk. 384.0 Rock Creek at Arlington  
 turnoff. At divide aspen trees along slope to S.  
 Trees on W side ridges show effect of strong winds  
 378.0 15 antelope, all resting, as has been the <sup>usual</sup> case of  
 antelope observed this morning. no young antelope so  
 far. more wind here and good view of Elk Mountain.  
 389.8 photo 810401-1 of Elk Mountain from NE. This  
 mountain is relatively isolated and consists of arctic  
 alpine, Hudsonian, Canadian and high plains  
 access from N by easy grade to top. Plan to trap  
 here some day. Road not in good condition to  
 circumnavigate at this season. there is definitely  
 more wind after passing over divides at N end of Elk  
 mountain toward Walcott. 391.0 crow. 7 antelope.  
 on most protected spot on hillside from wind. Crow:  
 392.3 61 antelope on lee side of small ridge, <sup>to S</sup> winds  
 strong today. Good panoramic view of isolated mts to  
 S. including Elk Mountain. 392.9 creek, dry. Some  
 domestic sheep in area. 393.5 20 crows and travelling  
 great speed with the wind. Some of the strongest winds  
 we have ever encountered across Wyoming (highway 80).  
 393.8 30 antelope, 8 males 1/2 mile to N. Above crows  
 in loose flock and took approx. 2 minutes to all pass  
 by. 394.6 divide into another valley. 395.1 5  
 antelope to S. Crow. 395.9 402 Co road turnoff.  
 jackrabbit road kill. now in good valley of cotton-  
 wood trees. E Fork Medicine Bow river. Good  
 riparian group. Slight amount water in creek. Cotton-  
 woods tall and large in diameter. mileage <sup>to</sup> 396.8 ?  
 397.6 medicine Bow River, 2 crows. Rocks in river bed  
 and water flowing between them. Antelope (2). 397.2  
 10 antelope on hillside to right. Good view Elk mt. to S.  
 Crow. 399.4 4 antelope to N. Strongest wind so far.

estimated at 45 (30-60 mpr). 30400.1 4 antelope to S  
 beyond pond all moving. 400.6 Turnoff to Elk mt.  
 and Hanna highway 72. 402.4 horned lark. 405.1  
 15 antelope just beyond pass. 408.4 4 antelope to  
 N. 408.7 32 antelope bedded down in sagebrush.  
 most of them males. (7100 ft.). 409.6 = 247 mile post  
 411.5 7 antelope to N. 412.7 1 antelope. 413.1 7  
 mule deer near top of ridge to N. 10 antelope 1/10 mi.  
 E of deer. 414.1 5 antelope (groups 2 + 3) to S. 415.7  
 2 antelope 415.9 6 antelope to N. 416.1 24  
 antelope, most of them bedded down. 418.3 exit  
 Peterson Road. 418.8 51 antelope in loose group,  
 one of which is small but not young of this year, to  
 S. 420.2 Crossing railroad. 421.1 Walcott exit.  
 421.4 overpass of 287. at 11:05 A.M. 422.9 3 antelope  
 N side. 424.6 6 antelope to N. Majority of antelope  
 this morning in high wind have been bedded down.  
 426.3 6 antelope to N. 427.7 N Platte River. Water  
 green and high. 432.3 9 antelope 100' from road.  
 434.1 8 antelope 434.4 turnoff to Sinclair  
 where we will get gas. Station next to refinery and  
 we paid highest price so far. Attendant says female  
 should have you by now and are farther away from  
 road than those seen along the road. 440.4 lake  
 to right without ducks which is unusual for these  
 lakes. 440.8 first exit to Rawlins at 11:45 A.M.  
 446.1 now back on 80. at 12:50 P.M. 449.2 40 antelope  
 455.3 road kill antelope. 456.6 <sup>(?)</sup> Daley Rd turn-off.  
 458.7 2 antelope by fence. 458.9 Sweetwater Co. line.  
 460.7 6 antelope and widely distributed, horned lark.  
 462.0 80 antelope to N. 462.8 42 antelope and  
 quite a few bucks along fence line by road, 2 Citellus  
 franklini, horned lark 463.0 15 antelope S side.  
 466.6 9 antelope to S. 468.5 5 antelope to N.  
 469.2 unusually flat country to N. 470.6 turnoff  
 to Boggs. 471.5 8 antelope to N. Color of antelope  
 changes according to angle of sun, one moment  
 conspicuous and the next moment they disappear.  
 473.7 Continental divide overpass. (7100 ft) 480.2  
<sup>ferruginous</sup> roughleg hawk. 483.4 <sup>ferruginous</sup> roughleg. (leg feathers  
 reddish brown). 484.8 Wamsutter turn-off at 1:50 P.M.

488.3 28 antelope. 489.0 Frewen Rd turnoff. W of Continental sagebrush more sparse than E side and there is less ground cover. 492.0 Red Desert (old original building) 499.9 Tipton turnoff. 505.2 Table Rock turnoff. 515.2 35 antelope N of road, about 200' off road. 2 males in group (horned). 518.8 Redhill turnoff. Beginning of general covering of snow on ground mainly on lee side of ridges. 527.3 Point of Rock exit. 527.4 Point of Rock underpass. 528.1 magpie. 535.7 Superior turnoff. 550.8 first exit to Rock Springs 553.3 junction 187-80. Elk Street. Ridge N town with snow cornice all along top and recent snow to base of ridge. 559.8 E Flaming Gorge Rd, highway 373. 563.4 magpie. 567.2 Green River exit. 570.8 along cliffs of Green River shales. Golden circled in one canyon and then continued E along face of cliffs. The common domestic pigeon nest in cliffs and were attacking the eagle at every point where pigeons had nest or young. Eagle without much white at base of tail. (4:15 P.M.) 572.6 red-taillike hawk. 572.8 Green River bridge, ice along shore all along. 575.9 turnoff to Fontenelle dam. 581.7 Black Fork River, water below normal (summer level). <sup>590.1</sup> ~~589.1~~ Turnoff Little America. at 4:40 P.M. Left 5:30 P.M. 596.2 seven antelope S side along fence. 597.8 turnoff Cedar Mt. Rd. 5602.6 Uinta Co. line. 604.9 26 antelope, 6 with horns. 606.3 turnoff to Church Butte Rd. Streams generally dry in area are now full of water. 611.1 Leaving 80 now to Lyman 6112.3 3 antelope 614.5 12 antelope. 617.8 red-taillike hawk. Lyman. Checked K.O.A. but not open. 2 Calif. gulls. Now back Lyman and on to Ft. Bridger at 622.4 3 Brewers blackbirds, killdeer. 627.7 melanistic red-tail. 628.4 Camp in field N across road from Fort Bridger (Old Fort)

Fort Bridger, Uinta Co., Wyoming.

April 2, 1981  
 Left 7:55 A.M. min temp <sup>26</sup> ~~36~~ °F sky clear to E, cloudy to W.  
 629.1 Black Fork River. water low. Robins + 2 magpie at camp and a few Brewers' blackbirds. 31.6 now on 80 highway. <sup>magpie</sup> 32.2 Union Rd Exit

42.2 magpie. Have been in juniper-pinyon forests. 44.6  
 top of hill. 67.1 Exit 180 to Kemmerer. 49.9 snow  
 on most exposures, mainly on N exposures. 51.8 Divide  
 road. 63.1 Golden eagle. 55.0 Painter Turnoff and  
 Eagle Rock Skiing area. 61.6 W side Evanston in  
 town at ~~8:55~~<sup>8:55</sup>. Six crows. 62.6 now back on highway 80  
 65.8 Utah. at 9:09 68.4 2 ducks flying. 72.0 magpie.  
 76.0 8 crows, few rain drops on windshield. 91.0  
 2 redtails at nest on N side in cavity in red cliffs  
 near top. 93.1 visitors center. Photo 810702-1 of  
 red cliffs N side from visitors center showing stratificat-  
 ion thin at base and wider or thicker at top. Note snow  
 on ridge on top. Vegetation (short) has seated some ledges  
 and talus below. Artemisia in foreground. Three  
 Eutamias minimus in area. Photo 810402-2 same area  
 as above but different foreground. Eutamias in this  
 area. Citellus armatus also in area and associated  
 with Eutamias. I would presume that in addition to  
 redtails nesting on cliffs that also the golden eagle, <sup>and</sup> prairie  
 falcon would nest in area. 2 magpies. water in  
 Echo Reservoir up to trees on shoreline and not too far from  
 overflow. 150 ducks in S end of lake. 99.7 Calville  
 turnoff. 702.0 2 redtails and 2 magpies at least  
 1000 above the valley. 2 magpies. many magpie  
 nests in riparian growth along river. Young of cattle  
 must have been born just yesterday as they can hardly  
 walk. 18 Cowbirds feeding around adult cattle but not  
 new borns. 705.2 mule deer road kill. Citellus  
 armatus numerous in fields and one can count  
 as many as 10-12 at one moment and apparently are  
 all over the valley. 705.8 magpie. 707.0 willows  
 a brilliant orange colored stems. Cottonwoods are  
 a lightish brownish grey. 719.9 junction 248 now to  
 Park City to check with <sup>W</sup>Chas. Adams' old studio. A Mr Jim  
 Aurbach now owns and operates the studio. <sup>main Street Photographer, 523 Main St., Box 161B, Park City, UT</sup>  
 individual who owned the studio a Mr Kendall V Webb  
<sup>801-649-9431</sup> had died last year (see previous notes of Mr Webb). Mr.  
 Aurbach said that after Webb died the building went  
 to the new owner and he inherited all the Adams  
 equipment, photographs, negatives that had accumulated  
 and belonged to Webb and they (the negatives and prints)

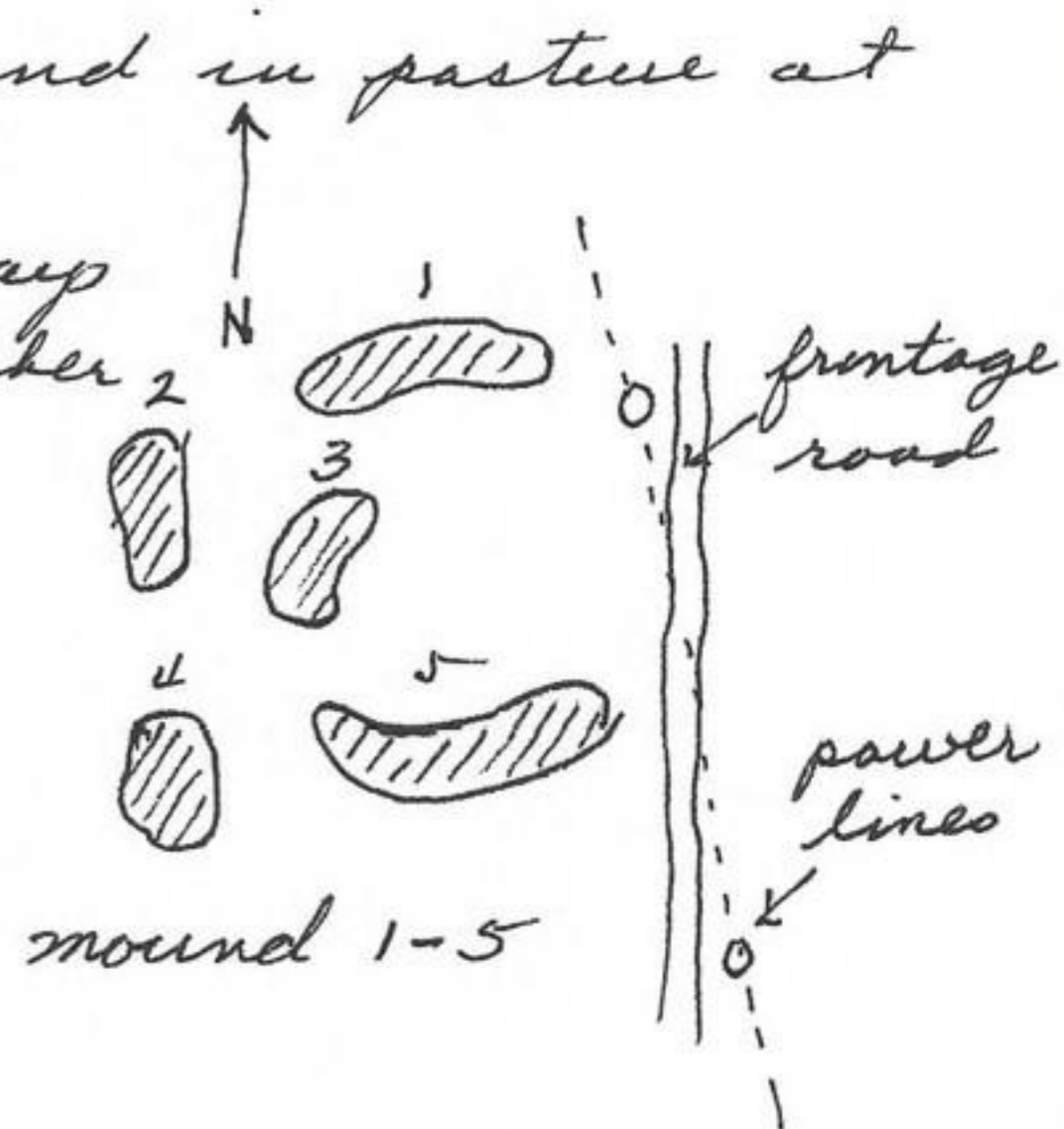
will not be available to the public until they have been inventoried and catalogued. Aurbach says there is no demand for Adams work as yet and Aurbach did not even know that he was a painter although he had seen pictures of the paintings. There is considerable agitation between Judge Litter of Salt Lake City and the new owner. Litter tried to get the large studio camera which is now stored in the studio as well as other properties of Adams, but he was not legally successful. Aurbach says the new owner had no intentions of establishing relations with Litter. Aurbach will keep us informed of the progress of the cataloguing of the negatives of Adams. I am not sure if Aurbach is the current owner of the studio. Left Park City and at 730.6 cross Wasatch Co. line enroute to Heber. I just remember that Aurbach says that it is difficult to identify the authorship of negatives and prints of Adams because they were not marked by signature or other information. He mentioned the name Currey as an associate of Adams. 734.0 redtail. 734.1 Keetley 737.0 Provo River. 740.8 magpie just as we left 40 for Homestead. Photo 810402-2 of mt. Timpanogos from Heber Valley just before crossing Provo River on way to Homestead-Charleston area. From in vicinity of Charleston took telophoto of mt. Timpanogos no 810402-3 Heber Valley is an ideal area to photograph Timpanogos with its interesting foregrounds of trees, creeks, open fields, however these places are becoming scarce because of buildings now in the middle ground. 741.6 3 magpies. 741.9 2 magpies. 745.8 this is the spot where last above photo was taken. 747.1 Provo River at head of Deer Creek Reservoir. <sup>approx.</sup> 2000 Calif. gulls resting on shore at N end reservoir, great blue heron, approx 80 ducks. Water higher than summer period. 748.6 back to highway 40-189. Photo 810402-4 of Deer Creek Reservoir of island. The water was almost across the dry isthmus at 749.2. Also from here took 4 photos of mt. Timpanogos 810402-5 of general view of Stewart's Curve to Aspen Grove terraces. Deer Creek ridge in foreground. Good Avalanche tracks off of Elk mt. Broad valley off

Deer Creek ridge may have been made by drainage from Timpanogas before N Fork pirated the east flowing drainage. Photo 810402-6 of Arsen Grove terraces & Elk Mt to Left. Deer Creek ridge is excellent place for photographing this mt. Photo 810402-7 of Stewart ~~the~~ Cirque. I believe that property should be picked up on Deer Creek ridge at vantage points. Photo 810402-8 of ~~Timpanogas~~ taken a few miles farther down the Provo Canyon (see 755.1) showing Stewart Cirque area. 750.7 golden eagle with some modelling underneath. On ridges E of Deer Creek Reservoir. 751.9 magpie. 755.1 a photo of mt. Timpanogas (see above). 755.6 Sand dam of Deer Creek Res. 757.1 Photo 810402-9 of Cascade Range shooting down Provo Canyon. 765.8 Photo 810402-10 of W side of Cascade Range from <sup>near</sup> mouth of Provo Canyon. Arrived Provo City at 771.0 at 1:00 P.M. Marys at 30774.1 at 1:20 P.M. having travelled 145.7 miles today. First night at Mary B Jensen's home at 15937, 1450 E, Provo, 84601.

Provo, Utah Co., Utah

April 3, 1981

This A.M. drove toward Springville and in pasture at edge of mud Lake rushes recorded the 5 large mounds that have always been there as long as I can remember and could have been made and inhabited by Indians (Pueblo). They are W of Interstate highway. The frontage road leaves Springville exit and goes N until it stops just beyond where the frontage road goes under the high power lines and also beyond Hubble Cr culvert.



In period when these mounds may have been used the mud Lake shoreline probably was just W of mounds. Today the waters of mud Lake are to mounds but there is a mile or so of bull rush between the mounds and the open water beyond. Mud survey of mounds but did not see evidence of the mounds having been inhabited. The remind me of mounds in SW part of Provo.

Returned to Don and Mary's home and photographed one of Mary's outstanding Leados no 810401-1 man and woman at pedestal. The camera corner, 380 E 4450 N Provo, Utah: owner Wendell Fletcher will buy old cameras  
 Provo, Utah Co., Utah  
 801-225-5225

April 4, 1981

Stayed at Mary's last night but left for Stewart Flat at sundown to stay at Don and Mary's cabin on moraine in conifer forest. Photos 810404-1 and 810404-2 of snow in front of <sup>(Little Chalet)</sup> cabin. Oaks + maples shown. Snow in patches

Birds and mammals in area:

*Tamiasciurus hudsonicus* called several times in afternoon. One made definite trail of bare soil between and pile of wood under a porch and a pile of tree branches 20' away (cabin on edge of moraine and Don's + Mary's second <sup>(moraine chalet)</sup> chalet), *Eutamias minimus* saw across road at the Little Chalet (name for cabin where Mary + Don are now living in contrast to moraine cabin above on edge of moraine which is now called moraine chalet for points of reference.

Redtail hawk flew S directly over Little Chalet and then after circling twice alighted in tree (dead) on top of ridge on S side of canyon.

Gray-headed juncos fed among maples the entire day. Occasional came up on lawn where it fed on bread. Robin fed in area most of day.

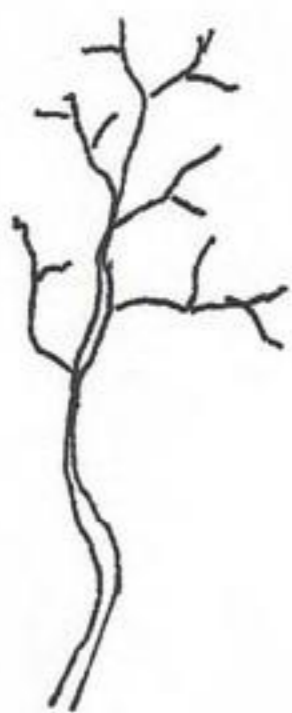
Stellar jay came to yard + porch for bread.

Mt. Chickadee fed on bread

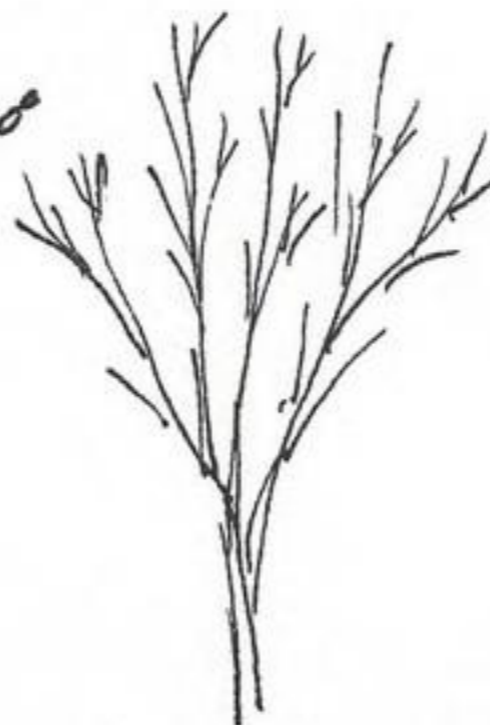
Little Chalet, Stewart's Flat, Mt. Timpangogus, Utah

April 5, 1981

Differentiation of mt. maple and scrub oak:



bare rough  
 branches leave 45°-90°  
 " lacelike  
 and latticelike  
 short branches



bark smooth (black fungus).  
 branches leave main trunk at shallow angle.  
 long + straight branches, + regular.

Oaks start like above but become oaklike due to controlling influence of fungus

In fact I have always wondered if fungi is responsible for small tree lifeform for both the oak & maples and maybe aspen as well.

This morning after lights were strong took 8 photos of Stewart's Cirque from Marie's moraine chalet at Sundance (one of Annette P Bee). Last of 8 taken at about 11:00 A.M.

810405-1 Stewart's Cirque (S of Elk Peak), telophoto showing part of face of Cheops (will call the cirque at base of Cheops, Cheops cirque for reference purposes) and convergence of two cirques. Cornices well developed, slope below right hand cornice has slipped and formed distinct wall on otherwise smooth sloping side of ridge.

810405-2 Cheops and Stewart's cirque. Sliding of snow at base of Cheops is from rocks heating snow which gives way for small avalanches. Most avalanches, generally minor surface ones start from this method.

810405-3 E side Elk Peak & part of Stewart's Cirque. Some surface slides off this mt.

810405-4. Terraces below Stewart's Cirque. Lowest snow patch is flat canyon below falls.

810405-5 Same setting as 810405-1.

810405-6 Same setting as 810405-3.

810405-7 General view Stewart's Cirque. Golden Eagle nest area can be seen from left hand side photo, middle.

810405-8 Annette P. at moraine chalet.

810405-9 Same general setting as 810405-3.

810405-10 Cheops & Stewart flat Cirque (3:00 P.M.)

810405-11 General view Stewart Cirque including Cheops and Elk Peak taken at 3:00 P.M.

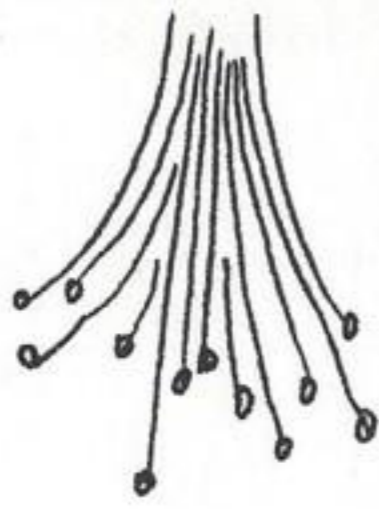
810405-12 Yellow lichen on branches of Douglas Fir at Marie's moraine chalet.

While surveying cirques from moraine chalet with Celestron in A.M. a goshawk flew up valley from E to W at height of top of lateral moraine on N side of valley.

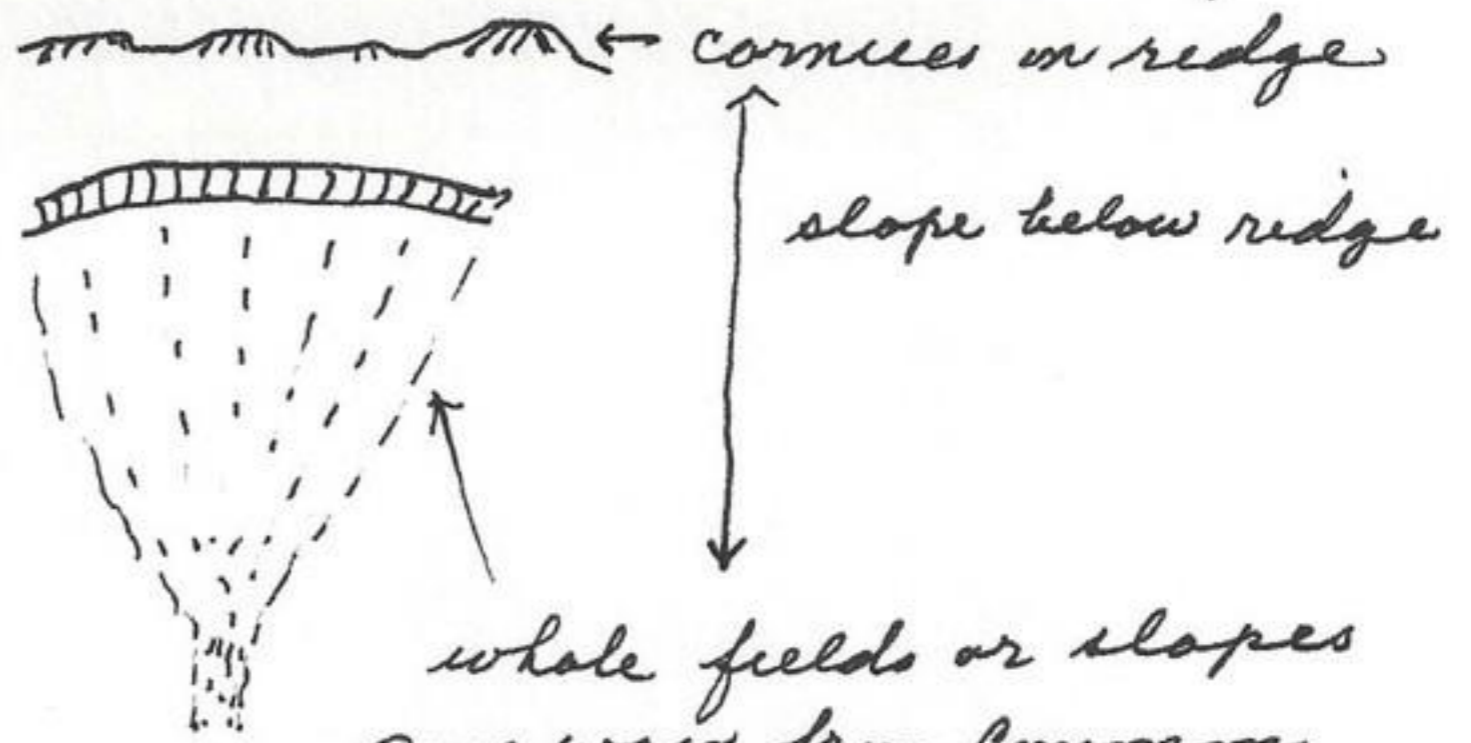
From approx. 8:30 A.M. to 10:30 A.M. there were many superficial snowslides on upper slopes of the cirques and bordering peaks. By the end of the period approx. 70% of the steep slopes of upper slopes were developed into snowslides. These avalanches were difficult to see except when they moved off flat slopes to gullies or when cascading over cliffs in drainage systems.



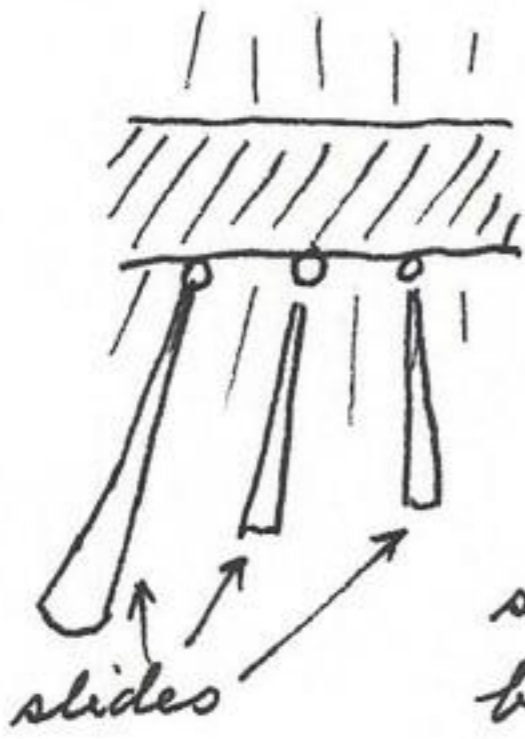
Some patterns recorded:



snowball tracks on alluvium or at mouth drainage below cliffs.

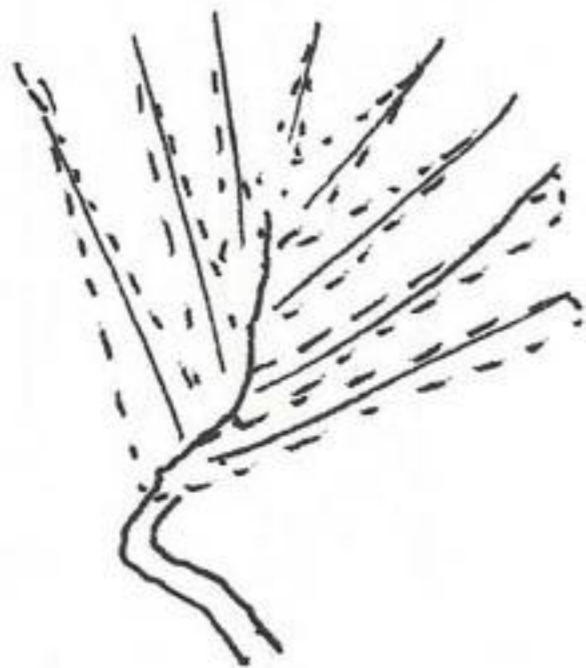
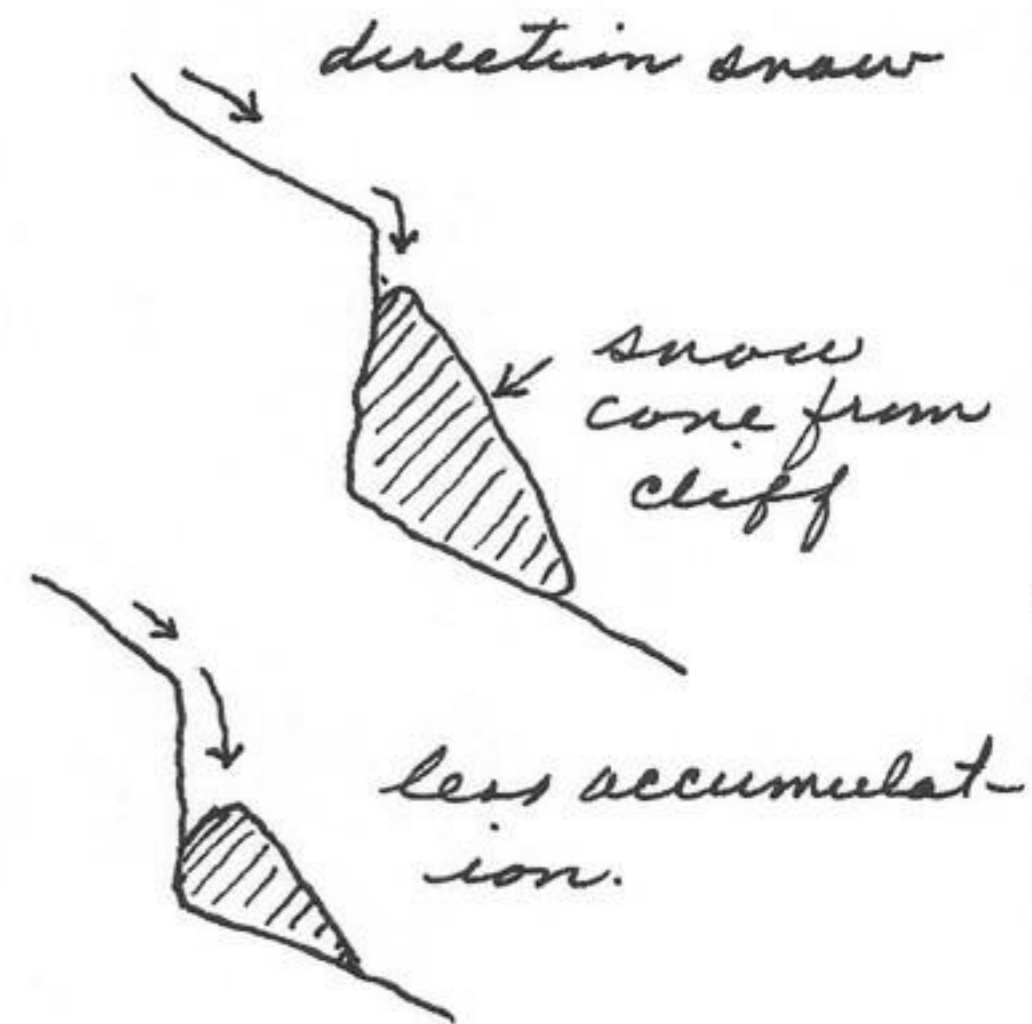


whole fields or slopes give way from common fracture below ridge and finally converge in in drainage below.



cliffs exposed and steep slopes above & below

slides start from base of cliffs from either ~~melting masses from cliffs~~ snow or rocks falling from or being dislodged from the cliff onto the snow slope at base of cliff



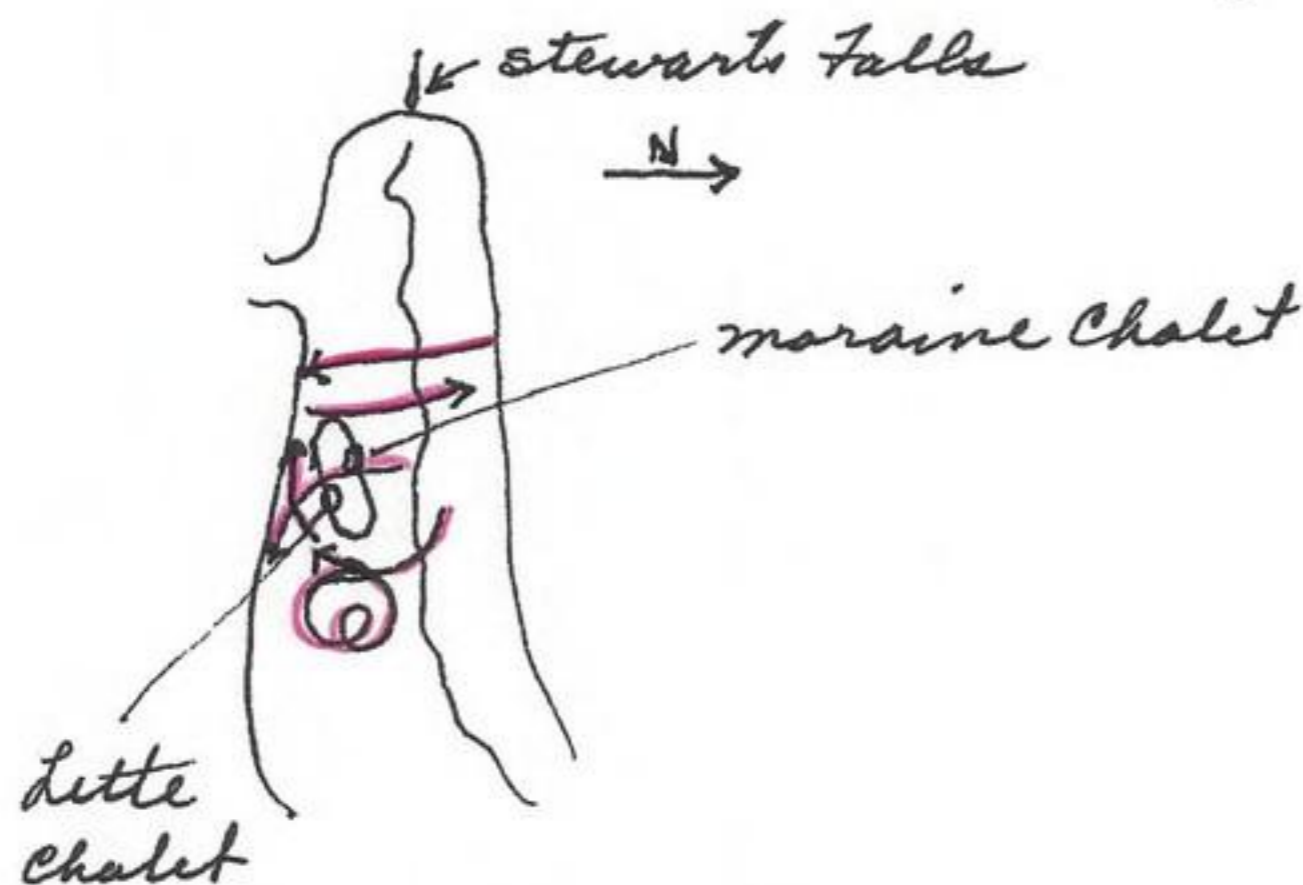
drainage slopes converge and produce a gully, avalanche track, or channel.

at the Little Chalet a brown creeper fed on scrub oak on w side of chalet. at the moraine chalet a small nuthatch fed in white fir tree (*Abies concolor*). at 3:30 P.M a house fly was active outside as was a large stink beetle (5/8 inches long). blood pressure then 104/58.

The white fir on or up thru S porch of moraine chalet is 10' 10 1/4" in circumference at 4' from down slope base of tree (actually the circumference was taken from level of porch floor. a maple tree w of Little Chalet (approx. 35') is 2' 8" in circumference (this tree immediately E of tank, fuel).

An oak tree (scrub), below Little Chalet on slope is 2' 7<sup>3</sup>/<sub>4</sub>" in circumference. Another one in same area (approx 80' below chalet) is 2' 7" in circumference.

Recorded sight records of redtail hawks (A.M. & P.M. Combined)



At the Little Chalet the frequency of birds (numbers) is from most numerous to least numerous: robin, gray-headed junco, mountain & black-capped chickadee, Steller's jay, brown creeper, red-tailed hawk, Oregon junco, nuthatch (white-breasted), Goshawk, ruby-crowned kinglet. Mammals: Eutamias, armatus, Tamiasciurus, deer tracks. The trees in area of chalets are cottonwood, Engelmann spruce, white fir, Douglas fir, willow and kinnikinnick.

This afternoon Jim & Don and Annette & I checked cabin 200' or so down stream from Boy Scout Camp (house on E side N Fork Creek). Jim was to buy for \$75,000, renovate and sell for maybe \$200,000. The owner said that originally the land was traded for a wood stove. The two homesteads in N Fork were owned by the Stewarts, one family owned N part & the other the S part of canyon.

Moraine Chalet, Sundance, N. Fork of Provo River, MT,  
Timpanogas, Utah Co., Utah.  
 April 6, 1981

at daybreak went up to moraine chalet from Little Chalet to photograph <sup>(Estimate 400)</sup> the lighting on cirques before and after sunrise. B.P. 150/85. Air temp outside 40°F

First photo 810406-16, 60 speed, aperture 22 light in candlepower 3.5 of Stewart's Cirque with diffuse light before sun-up. no snow banners. Time 5:50 A.M.

Photo 810406-17, 60 sec. speed, 22 stop, 5. candlepower. Stewart Cirque as above. Light seems less than above. Time 5:55 A.M.

- Photo 810406-18 Time 5:58<sup>AM</sup>, speed 60<sup>th sec.</sup>, stop 22, candlelight 4.5.  
Same as above 2 but more reflected light from E and sky.
- Photo 810406-19. Time 6:03 A.M., speed 60<sup>th</sup> sec., stop 22, candlepower 10  
Stewart cirque (all from moraine chalet) with first sunlight on top mt.  
Pink of sunrise confined to upper ridge. Actual being there  
with cold on your face and cool fresh air does something to one  
that is not produced by looking at the mt from a picture.
- Photo 810406-20 Time 6:07 A.M., speed 1/60, stop 22, candlepower 14.  
Stewart's Cirque, sun now down to base of Cheops, in upper cirque  
and on full peak to N (a good name would be Facet Peak, for  
the peak and henceforth will be known by that name.
- Photo 810406-21 Time 6:16 A.M., speed 1/80, stop 22, candlepower 75.  
Stewart's cirque with light now to Stewart Falls and at moraine chalet.  
Color of sunlit surface from pink of sunrise to white of full light on  
mt. Good gust of wind pass by moraine chalet.
- Photo 810406-22. Time 6:20 A.M. speed 1/80, stop 22, candlepower 80  
Stewart cirque as above with some cloud shadows from E.
- Photo 810406-23 Time 6:25, speed 1/80, stop 22, candlepower 90.  
Same as above but with more cloud shadows from E. Photo perpendicular
- Photo 810406-24. Time 6:30 A.M., speed 1/100, stop 22, candlepower 100  
Facet Peak bordering N side Stewart Cirque with wall of  
Stewart Cirque to left in background. Telophoto.
- Photo 810406-25 Time 6:56 A.M., speed 1/150, stop 22, candlepower 180  
Same as above but shadow in foreground.
- Photo 810406-26 Time 6:57 A.M., speed 1/150, stop 22, candlepower 180  
of Cheops with eagle nest in lower left corner, shadow in  
foreground. Light bright white. Perpendicular frame
- Photo 810406-27 Time 7:07, speed 1/150, stop 22, candlepower 200.  
S part Stewart Cirque and Stewart Peak to left showing major  
avalanche track (Overwhelm Tract.)
- Photo 810406-28 Time 7:15 A.M.; speed 1/250, stop 22, candlepower 250  
N end Stewart Cirque, with avalanche mt in middle and Elk  
Peak to right. Shadow on base of elk peak, N lateral moraine  
visible on lower right hand side.
- Photo 810406-29 Time 7:16 A.M.; speed 1/250, stop 22, candlepower 250  
Stewart Cirque with Cheops and Cheops Cirque to left. Fir  
tree bordering right side.
- Photo 810406-30 Time 7:18 A.M., speed 1/300 sec., stop 22, c.p. 250  
Same as above.
- Photo 810406-31 Time 7:19 A.M. speed 1/400 sec. stop 22, c.p. 300  
Stewart's Cirque bordered by fir to right.

Photo

810406-37. Time 7:20 A.M., speed 1/400, stop 22, Candlepower 400  
Perpendicular shot of Stewart Cirque, terraces and Stewart Falls  
to base.

At 9:30 A.M. went main N Fork road E of Sundance  
and from sidehill of Deer Creek ridge about 100' up slope at  
conifer tree took two photographs of Stewart Cirque.

Photo  
810406-37 Ashley Peak & coalunche tract, entrance to  
Cheops Cirque, Cheops and S part of Stewarts Cirque.

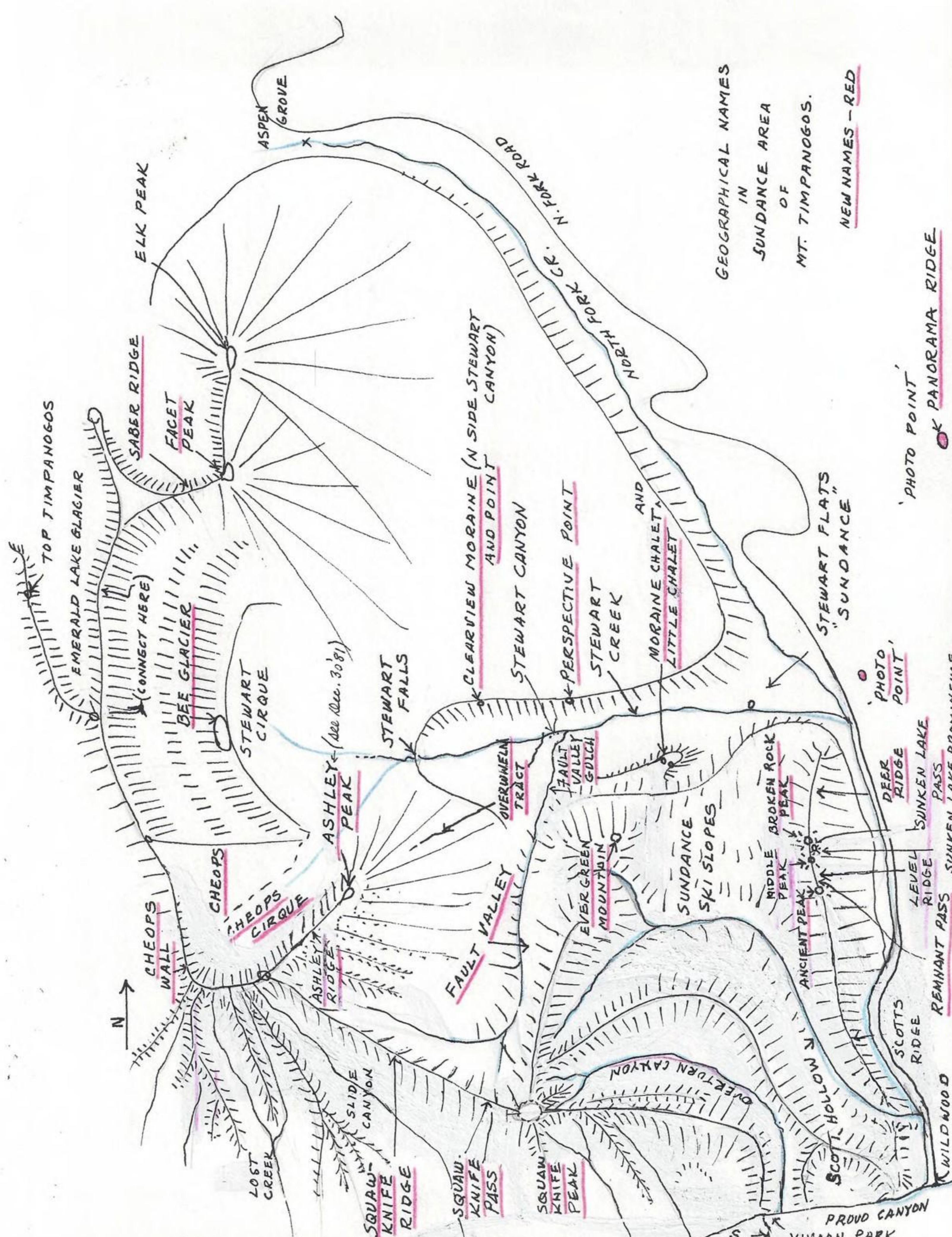
Photo  
810406-38 of Stewart Cirque. no birds at this station.

On way back met Wayne Hooker who was driving  
a truck pick-up to a building site S across the canyon  
from Mary's Little Chalet. Hooker is building several homes  
at Sundance and has property just below mortons bordering  
the ski-run. One 4 story house is being built for the  
movie actor de Vane (? sp.) of California. This house is a  
\$1,600,000 home with a rustic theme of rocks & supporting  
timbers. The structural timbers were collected by  
Hooker in the Utah mountains and are probably  
Engelmann spruce. He selected them from many hundreds  
of trees examined for proper whorl or twist and texture.  
(3+ dia)  
They are exposed in all the rooms that are intercepted on  
the 4 floors. Other massive timbers gone overhead  
support. Hooker was a photographer for Play Boy Magazine.  
He is considerate and interesting to talk to and is low  
key in dealing with other people.

Don arrived from Calif with a truck and Camper.  
This afternoon we hiked to the Morton Chalet above Hooker's  
home site and Don was supposed to talk with Mrs  
Morton for probable sale of her home but that same day  
the mortons took the chalet off the market. Mrs Morton  
is a jet setter in appearance. Her husband is a banker  
in Chicago. A security member having been in Alaska  
for some time remains at the chalet throughout the year.  
This house has several hot tubes and a swimming pool.  
Mrs Morton has a life size bronze statue of herself. The  
house in general is cluttered with too much furniture  
although she is supposed to be an interior decorator.

The house is at the edge of the sky slopes. Photo 81040639

is from the N side of the Morton home showing the view of  
Stewarts Cirque they get from their location. Aspen  
tree bordering left side of photograph. First shot on  
new roll of Kodochrome 64. made map with names used in notes



GEOGRAPHICAL NAMES  
IN  
SUNDANCE AREA  
OF  
MT. TIMPANOGOS.  
NEW NAMES - RED

PHOTO POINT  
OK PANORAMA RIDGE

PHOTO POINT  
PHOTO POINT  
DEER RIDGE  
SUNKEN LAKE  
PASS  
SUNKEN LAKE PROMINENCE

SCOTT'S RIDGE  
REMNANT PASS  
WILDWOOD  
PROUD CANYON  
VIVIAN PARK

Little Chalet, Sundance, Mt. Tumpaganas, Utah.

April 7, 1981

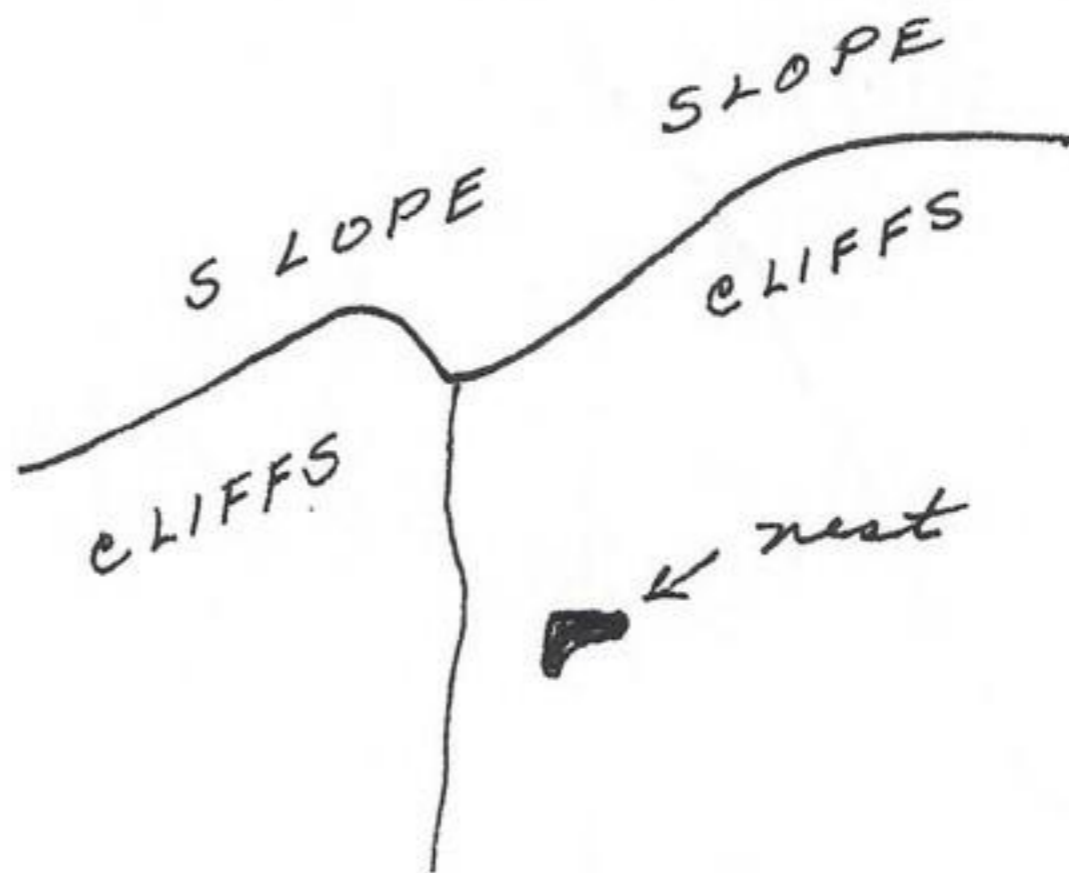
B.P. 150/88 46 pulse.

3 Steller jays consistently at feeding station shortly after feed was set out. A Goshawk flew past overhead. *Eutamias amoenus* at feeder.

Left for Heber this A.M. for supplies at 30943.6 mileage to Heber (incremental) main canyon road in Stewart Canyon .5 mi; lodge .5 mi; N Fork Road .2 mi; Wildwood 2.3 mi; Deer Creek Dam 3.9 mi; Heber 12.5 mi. or 19.9 miles from Little Chalet to Heber.

On return trip checked golden eagle nest from road at mouth of north fork. The nest is on S side of <sup>Prouse</sup> canyon in high cliffs. The birds were not seen but a nest was placed thus in cliff.

This nest had been used in previous years and eggs were laid then.



Returned to Little Chalet at Sundance and placed suet outside of kitchen window. In 1/2 minute 2 mt chickadees fed on suet. The Steller's jay consumed most of the sunflower seeds, the chipmunks next in order. Chickadee favorite food available is suet first and then sunflower seeds. Robins did not eat suet or seeds. juncos like small seeds.

At one time at feeder were:

- 3 Steller's jays (constant)
- 3 gray-headed juncos
- 1 Oregon junco.
- 3 chickadees (2 mt., 1 black-capped)
- 2 brown creepers
- 1 robin.

Today temp 40°F with clouded skies most of day, occasional snow but disappeared as soon as it landed on the ground. One red-tailed hawk passed W overhead. This has been the first day that there has been a full complement of food in feeder area.

Little Chalet, mt. Timpanogos, Sundance, Utah.

Checked arrival of birds from daybreak at the chalet  
 Temp 30°F. NO wind  
 feeding area. 5:48 Steller jays; 6:05 slate-colored  
 juncos; 6:12 robin; 6:18 black capped chickadee. Sun  
 up here at 6:18 A.M. 6:18 mt. chickadee; 6:27 Oregon  
 junco and gray-headed junco. 6:34 red-breasted  
 nuthatch. Then a lull. 6:45 Eutamias.

Drove to Provo. at Bridal Veil Falls in Provo Canyon  
 took 2 photos of falls.

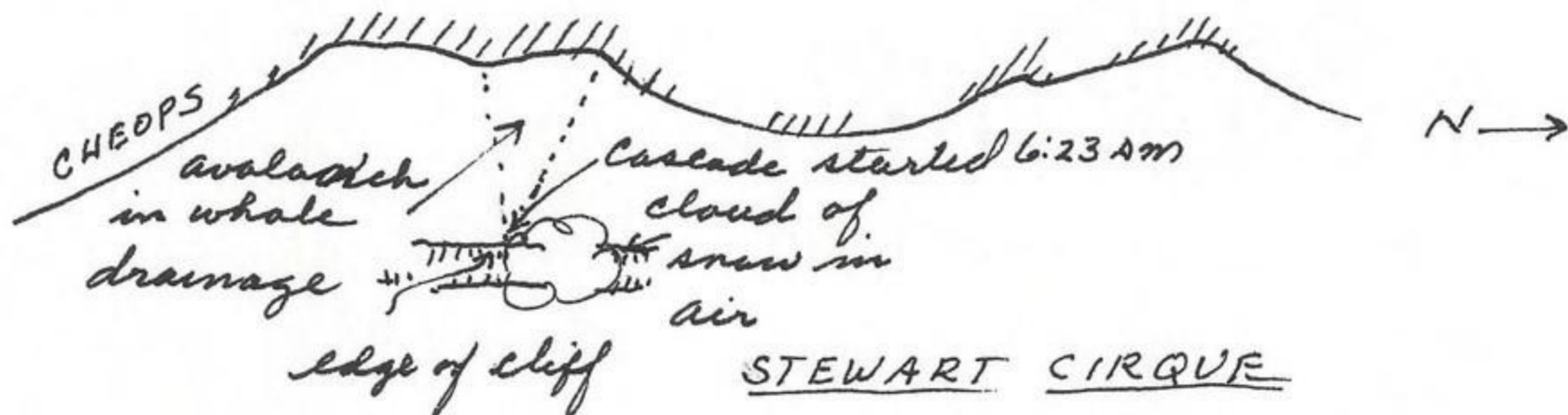
810408-1 upper falls of Bridal Veil. Form in Pennsylvanian  
 or maybe mississippian rocks. Occasionally snow slides  
 come over these falls to canyon below. These waters are part of  
 Provo's culinary water supply.

810408-2 lower falls of Bridal Veil Falls. waterouzel have  
 nested behind these falls near base.

moraine chalet, Sundance, mt. Timpanogos, Utah.

April 9, 1981

windy, Temp. 42°F. Sun on high clouds above Temp. many  
 snow banners, gusty winds. 6:08 A.M. sun just arrived top  
 ridge of cirque 6:23 avalanche from surface snows  
 falling over edge of cliff but instead of a cascade, blows out  
 into space and looks identically as an avalanche and is now a  
 cloud in appearance.

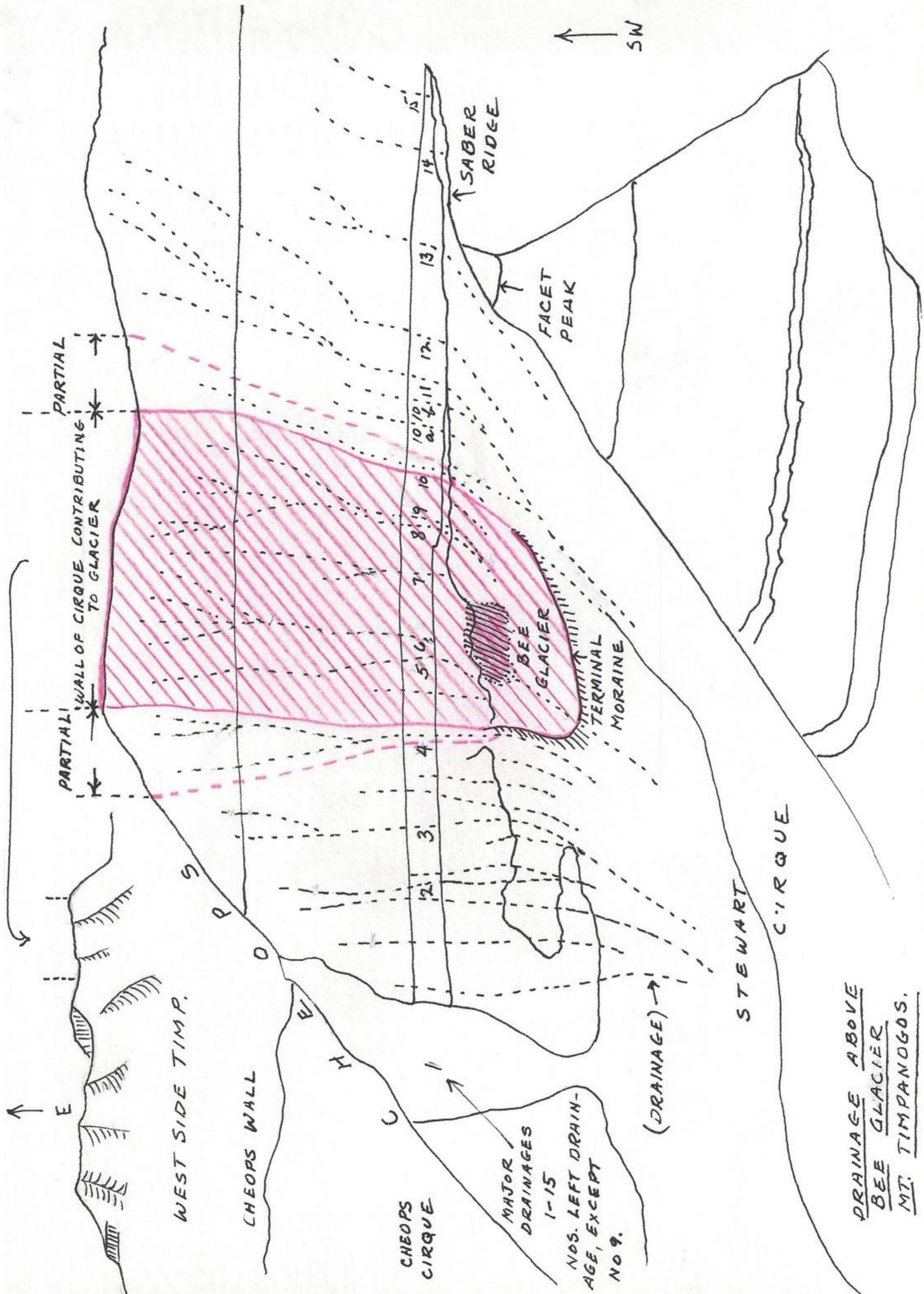


6:45 A.M. Increased surface wind caused 2 or 3 dozen avalanches  
 and cascades over cliffs for a period of 1 minute. These snows  
 are surface snows moved by wind.

6:48 A.M. Best display of banners and snow still blows out into  
 space as they drop out over edge of cliff.

7:02 A.M. Photo (tels) 810409-9 of cirque and ridge banners, cloud  
 shadow on lower floor of cirque. The avalanche that started  
 at 6:23 A.M. has been running continuously for the 39 minutes.  
 It is now decreased in size and at the moment intermittent.  
 The slides on cirque walls are weekly synchronized in time.  
 This is drainage no 4 on map. Above 3rd knoll in snow field.







810409-48

This is the eastern-most drainage contributing (partial) to Bee Glacier.  
7:10 A.M. West wall of Stewart's Cirque synchronized and biggest falls over cliffs so far. Lasted 30 seconds and poured over cliffs as a falls rather than blowing out into space which has been the form up to now. All snows forming avalanches are superficial.

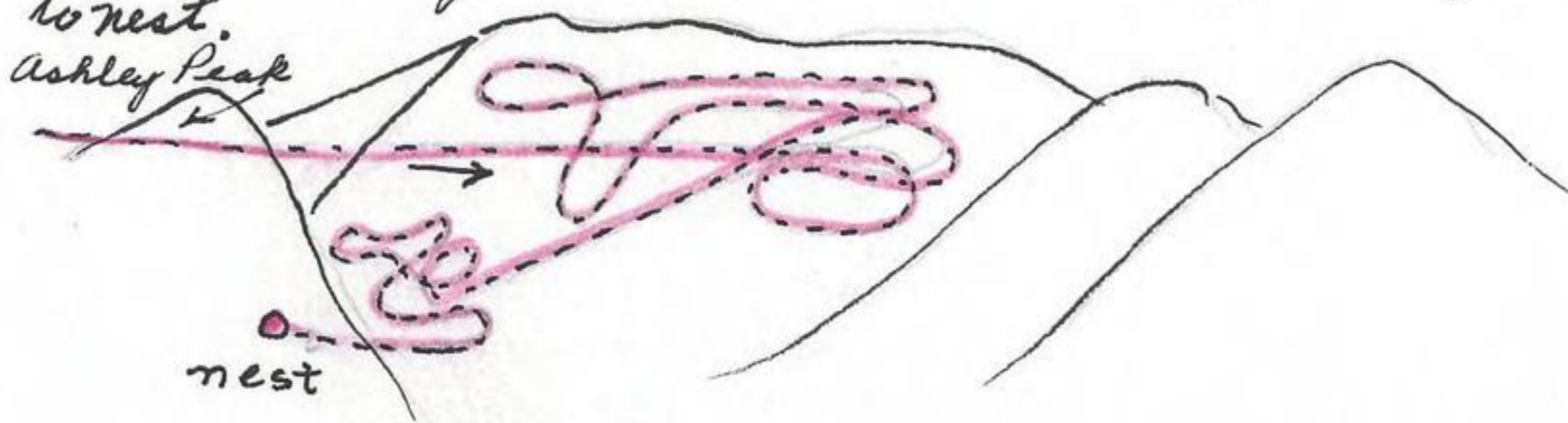
7:20 A.M. Photo 810409-10 showing snow falls to right of picture. This drainage system has produced some of the largest avalanches. Snow banners not as large as earlier this morning. This is drainage no 10 on diagram and is at the western edge of Bee Glacier. This drainage may partially contribute to the glacier, some to glacier, some outside limits of glacier. No 6 and 9 both have deposited considerable snow below the wall and within the limits of the glacier. If these glaciers are developed from accumulation of snow slides and cornices, it is conceivable that wind could be the major factor in snow accumulation in capture basins. It would not necessarily take deep snows but movement of snow from surface of great areas. This would also apply to snow accumulation of Emerald Lake Cirque and glacier. W. half of Bee Glacier receives snow from a divide and the E half from a high ridge.

7:21 A.M. Southern part of Stewart's Cirque and upper part of Cheaps. Photo 810409-11

7:23 A.M. Photo 810409-12 Avalanche cascading over cliffs in NW corner of Stewart's Cirque. Facet <sup>Peak</sup> slope to right. This avalanche is from no 11 drainage. Drainages no 12-13-14 and 15 are to right of no 11.

7:24 A.M. Photo 810409-13 of Cirque wall (Stewart's Cirque) showing avalanches out of drainages nos 8 and 9, double from right hand edge no 10, narrow flow out of 10a (the next one to right of 10)

7:30 Golden eagle arrived high from SE, circled <sup>outer</sup> edge of Stewart's Cirque using entire width of Cirque, then dived in direction of nest, circled near nest (to W) for 1 minute then to nest.



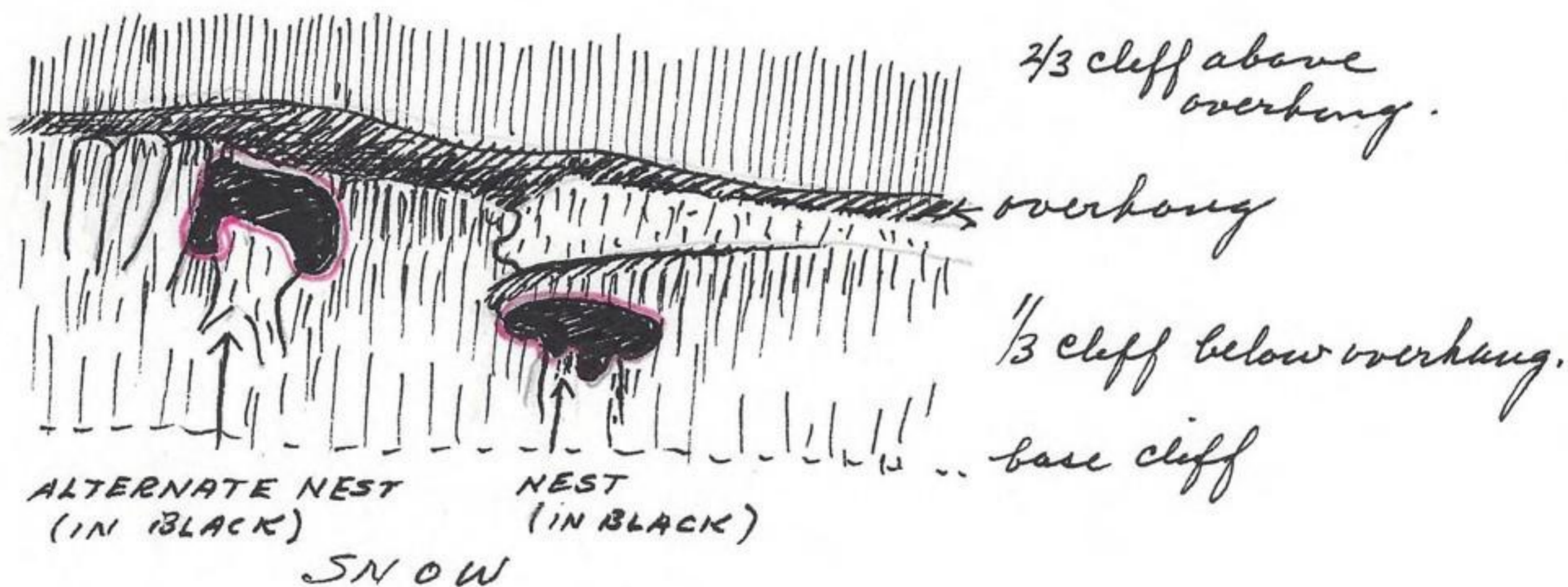
7:35 photo 810409-14 S part Stewart Cirque, upper Cheaps and eagle cliff (lower left corner) in shadow. Some snow banners on upper cirque ridge.

7:36 photo 810409-15 Stewart Cirque with few snow banners on ridge S end cirque beyond (W) Cheaps peak. Eagle nest lower left hand corner.

7:36 photo 810409-16 S end Stewart Cirque, upper Cheaps, eagle cliff and some terraces. Some clouds forming.

7:37 photo 810409-17 *ibid.* banners and snow banners wind and avalanches inactive at 7:38. 8:10 occasional avalanche. It is interesting that eagle arrived at about time clouds forming & wind subsided.

8:10 A.M. Set up Celestron for eagle observation.



The actual orientation of the cliff slopes more downward toward the right.

8:50 A.M. 2 redtail hawks circled above Stewart's Falls in valley.

Left observation post at moraine chalet at 9:00 A.M. and returned to Little Chalet where I photographed the Little Chalet.

Photo 810409-18 NE corner Little Chalet with slides on patio. Clumps of trees are maples.

Photo 810409-19 NW corner Little Chalet. Few snow patches remain on grass lawn.

Photo 810409-20 S. end Little Chalet. new renovation is to open this side to windows from top to bottom. Color of wood from weather and sun exposure. Oaks in foreground. This part of chalet needs to be extended out and up so cirque can be seen.

Photo 810409-21 W side Little Chalet with oaks in foreground.

Returned to observation post, <sup>at 11:40 A.M.</sup> on porch of moraine chalet and continued recording golden eagle activity.

11:42 A.M. eagle arrived at nest and after 13 wobbles or movement back and forth settled on eggs and then quiet. At this time there are no snow banners or avalanches in Stewart Cirque.

12:05 Eagle left.

12:29 Eagle returned and then repeated the behaviorism as of the 11:42 period.

12:45 P.M. left observation station.

Hairy woodpecker worked on Little Chalet the A.M. Red-shafted flicker called nearby. Temp today in 40°-50°F range.

This P.M. left for Mary's in Provo. It is 16.0 miles from the Little Chalet to her home on Bonneville Terrace S of Rock Canyon. Had dinner with Frank Scholler's home in Provo. He reported nesting pair of golden eagles at the regular eagle site at the <sup>(?sp)</sup> Dam in Utah. Returned to Little Chalet at Sundance.

Little Chalet, Sundance, Mt. Timpanogas, Utah.

April 10, 1981

Sky clear and forecasts to 70°F today. up at 5:30 A.M.

Steller's jay and Oregon junco already active at chalet.

a Steller jay will consume or at least carry away a lb of peanuts in a morning's time.

Left for moraine chalet (200 feet away) at 7:30 A.M. a goshawk alighted in the tall white fir that comes thru the porch on the S side of chalet. It remain until I exposed myself at which time it to w up Stewart Canyon. From observation station on porch checked golden eagle.

7:30 Eagle on nest. main, <sup>upper</sup> Stewart Falls approx 8" across and 4" deep, whereas the lower falls is 8 feet wide. The one above is 3'8" wide. It looks like there is additional water that is unseen that enters into the lower falls to make it so much larger than the upper falls. 2 robins flew thru porch on N side and nearly knocked my hat off. No snow banners or avalanches this A.M.

8:07 golden eagle stood up and adjusted eggs. Faces to N on nest.

8:17 eagle left to E.

8:28 A.M. eagle arrived from SE, circled N side of valley at lower falls level then up<sup>(N)</sup> and back S at second falls level to land in tree at 8:30 between falls & nest. At 8:30 it left to E around base of Stewart Peak. It did not go to nest.

8:35 a goshawk (irregular primaries) circled valley and then to Clearview moraine on N side valley, then returned to middle of valley & then E down canyon past the moraine chalet, at which point it was approx. 200 ft above the trees.

8:48 a small snow avalanche plunged over eagle cliffs 10' W of nest.

8:59 redtail circled in canyon then to E over moraine chalet.

9:00 golden eagle arrived from E near base of Ashley Peak at nest level and alighted on nest. Most approaches are from E around base of Ashley Peak and can be nest level or generally higher. It made forceful sideward movements of the head (4" or so) and at the same time settled on the eggs.

9:41 2 small snow avalanches, one on each side of nest and each about 3 times width of nest dropped over the overhang but did not disturb the eagle.

9:45 redtail hawk flew S overhead above tree tops, another flew W along Clearview moraine to N.

9:50 redtail to N.

10:00 redtail and Coopers hawk circled over Clearview moraine. The redtail continued, the Coopers circled higher and then trended N out of sight.

10:10 eagle left nest & flew E.

10:15 3 redtail hawks flew circled high overhead then moved N beyond area.

10:24 short snow falls at nest 5' away. It seems that the only place that surface snows are moving is at the eagle nest.

10:30 blue grouse flew E along outer edge of Clearwater moraine.

10:35 Red-shafted flicker called from top of Douglas fir to W.

10:35 eagle returned to nest and went thru same mannerism of adjusting eggs. Solid front moving in and no sun. Records this morning show eagle on nest 47 min; off nest 43 min; on nest 1 hr 10 min; off nest 25 min or 1 hr 57 min on nest and 1 hr and 8 mins off nest.

11:50 a coyote was first seen on upper edge of Clearview moraine N of moraine Chalet in clearing. It then walked thru clearing into oaks & maples and finally disappeared as it moved E down moraine.

Returned to Little Chalet. *Citellus armatus* at chalet at 12:00 noon for first time today.

Left Sundance and drove to Provo where I called on Mr. Salisbury's daughter, <sup>(Mrs. Gerrie S. Kelly married J. K. Kelly?)</sup> now married and living at 361 E, 4380 N, Provo. She stated that there is no catalogue of Salisbury's paintings or art. He painted over 1000 pictures but not many watercolors. Returned to Little Chalet at 10:30 P.M. Rain.

Moraine Chalet, Sundance, Mt. Timpanogas, Utah.  
April 11, 1981

Temp 40°F early this A.M. no wind. BP 150/70

From observation station on porch of moraine chalet noted that from sunrise to 7:30 A.M. the sun shone on outer edge of alternate nest in eagle cliff.

7:15 A.M. eagle off nest. new snow on upper slopes of Stewart Cirque. Slightly more water in Stewart Falls.

7:40 clouds dropping down into cirque. Can see the old conifer bows on upper nest, apparently used last year. Clark's Crow flew across Stewart Cirque from S to N. about 1/2 way up cirque walls. There has been considerable snow surface sliding either last night or early this A.M.

7:45 a goshawk glided N across valley at chalet at a low straight angle.

7:45 few snowball paths base cliff below eagle nest.

At 8:00 A.M. this morning can see breath in the air. The base of second waterfall has a flow 20-30 times more water than comes from the falls proper. The last of the snow to remain on moraine chalet which is on the NW side or exposure left today. The side of the house 2 feet above porch is soaked <sup>down</sup> to porch level.

8:24 eagle arrive to nest.

Returned to Little Chalet and noted a bluejay stop at feeding area, drop a mouth full of building material for nest, feed for a few seconds then picked up the building material in its beak and flew away.

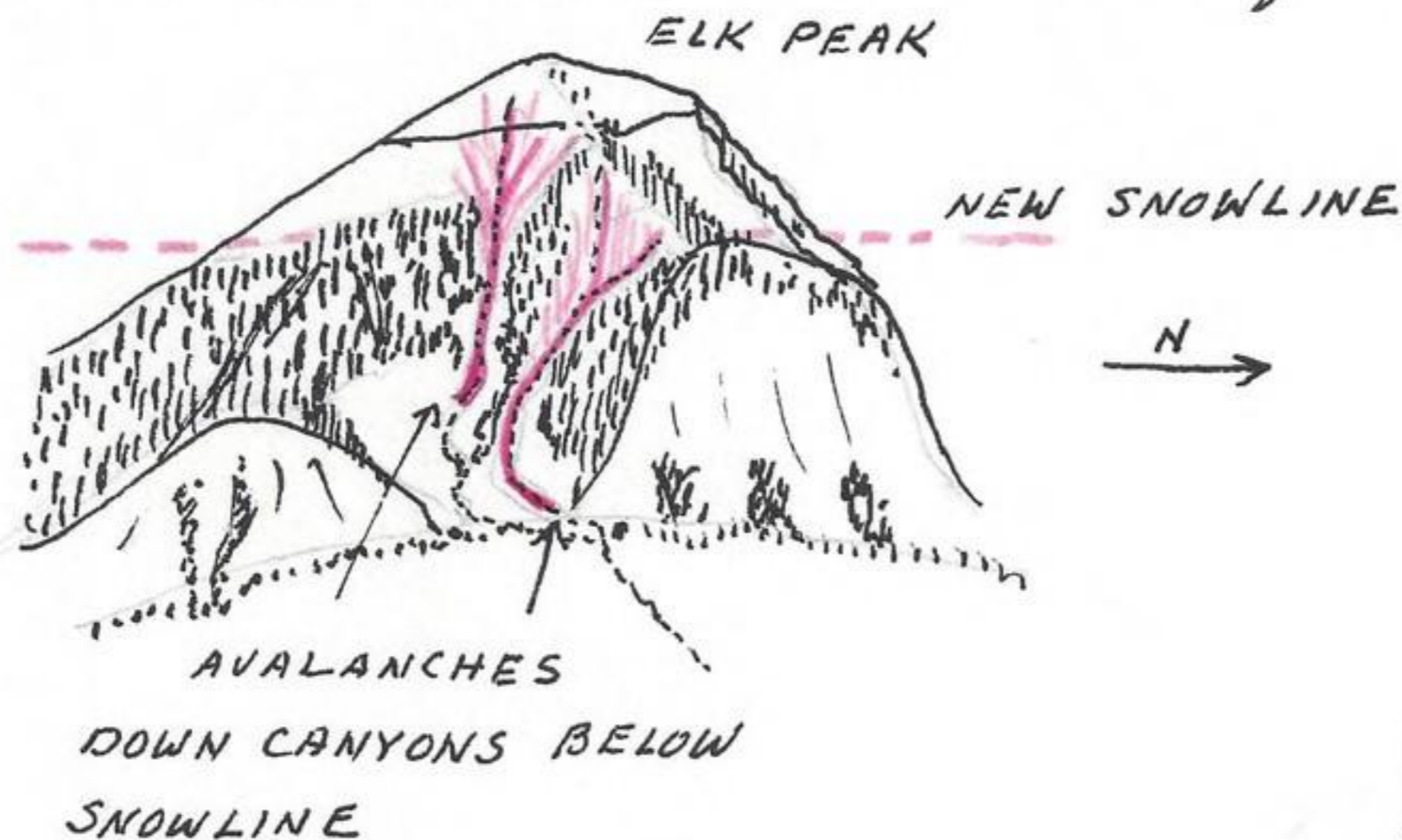
10:15 yellow-bellied sapsucker feeding on series of holes it had

made in bark of tree. It then flew to a white fir where it inspected a similar set of preestablished holes. Fed by backing down tree trunk rather than ascending trunk. A *Eutamias minimus* put 9 pinyon nuts into his cheek pouches and then left feeding area.

Little Chalet, Sundance, Mt. Timpunogas, Utah  
 April 12, 1981

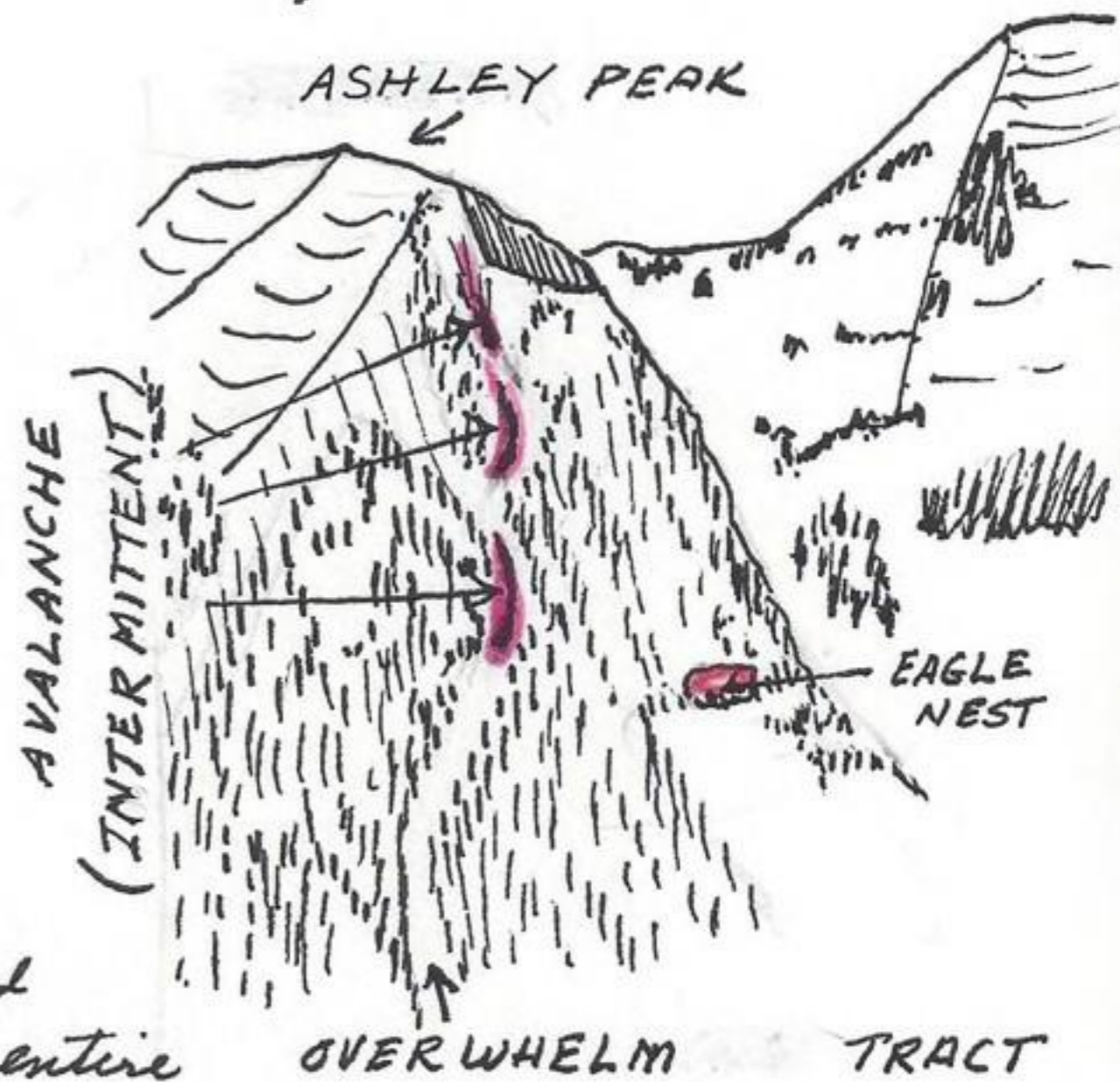
Temp. 40°F, Clear, no wind early this A.M.

7:32 chipmunks (only one species at feeder *E. minimus*) just after sun arrived in feeding area. most extensive snowslides since our arrival. Clouds yesterday on upper 1/3 of mountains, this morning snowline down to base of clouds. The avalanches descended for the first time beyond the spring snowline, mainly in large drainage systems. For instance on E face of Elk Peak, avalanches to base or near base of mountain slope.

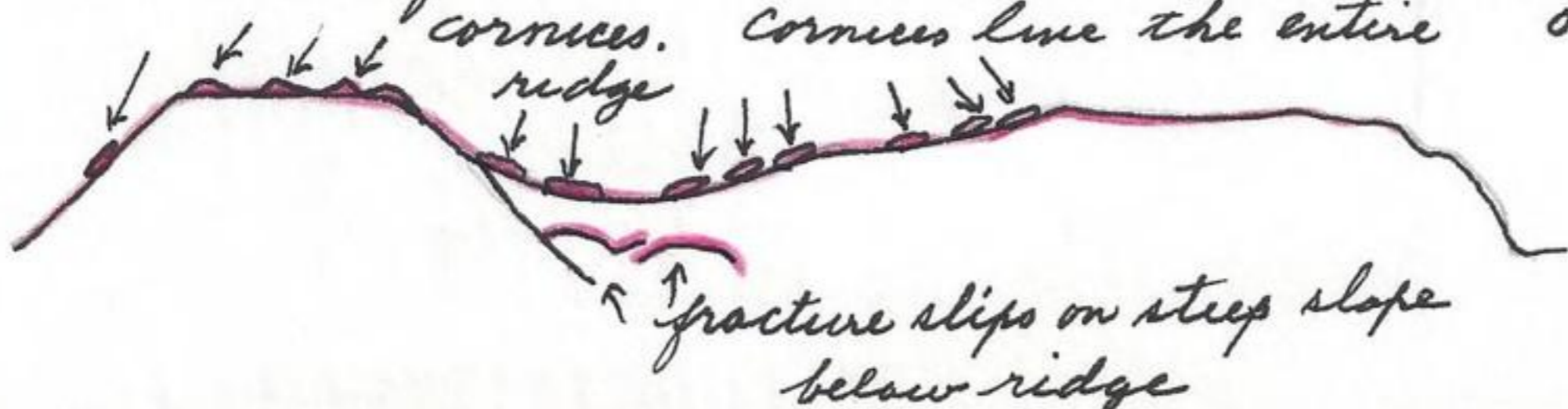







In canyon there was considerable build-up of snow cones below cliffs in canyon floor.

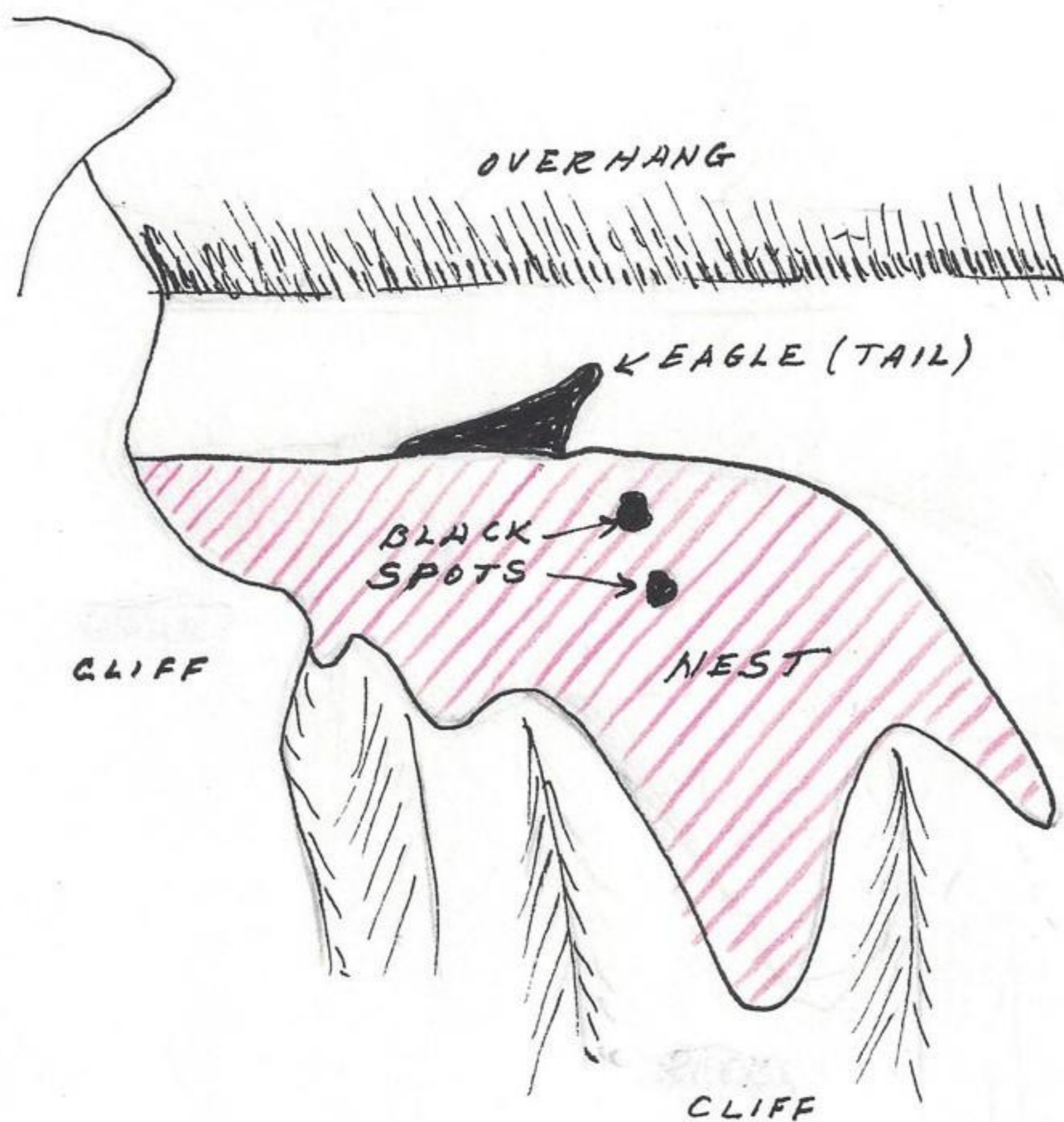
Intermittent slides on Overwhelm Tract. There is more evidence that slides start from snow melting on faces of cliffs and dropping down onto snow at base of cliff that starts the slide.



Principal areas on ridge above Stewart's Cirque that have well developed cornices. Cornices line the entire ridge. fracture slips on steep slope below ridge



10:00 A.M. observed nest of eagle and no bird present on nest.  
 10:25 eagle arrived and alighted on left side of nest for 1 minute, then to center of nest where the bird became  $\frac{1}{2}$  normal size and faced the W.  then turned and faced the S or back of cliff , then 2 minutes later stood upright , then after 4 minutes gradually settled down with head out of sight and tail high  and only a <sup>small</sup> part of the body exposed, mostly tail.  
 10:35 For 4 minutes tail & wing up and head moving from side to side 



Eagle left nest at 11:00 A.M. I left observation station on porch of moraine chalet at 1:00 P.M. and at that time the bird had not returned (2 hrs). This is the longest the bird had been off the nest.

I can make a general statement that there are more avalanches after a new snow. Some butterflies at station.

11:25 redtail hawk circled to N. up to 11:30 no avalanches since first observations this A.M. It is the hottest and clearest day we have had so far. Occasional snow banner.

12:01 goshawk flew NE at low angle descent.  
 12:10 first clouds from W.  
 12:20 goshawk flew E down Clearview moraine. a  
 redtail pursued and caught up with goshawk and both  
 then dropped down at a terrific speed with neither  
 making contact. Another redtail circled higher at some  
 time.

This afternoon, Annette, Mary, Don and myself drove to  
 the Homestead in Weber Valley for a meal. Before leaving  
 took photograph 810412-27 from porch of moraine Chalet  
 of Timpanogas. Photo 810412-29 of cabins east of Little  
 Chalet and skiing slopes beyond. Movie stars rent these  
 chalets for \$150 per day when invited by Robert Redford for a  
 week-end of skiing. Photo 810412-31 from porch of  
 moraine Chalet with stronger lights and clouds on Stewarts  
 Curve. On way to Homestead the Allen development  
 area (below dam on W side canyon) (just N & E of Crispies  
 knoll). In this area of old river valley benchlands noted  
 18 *Citellus armatus* per 100 x 100 square feet. The entire  
 area was saturated with this ground squirrel and the  
 movement on the grounds was continuous.

On return to Provo took photo <sup>810412-32</sup> of a rock slide that  
 I have photographed practically every time I have made  
 a trip west. There is very little change from the first  
 photo taken years ago.

In Provo Mary invited Helen Morgan, a retired  
 attorney, age 75, and an authority on Paul Salisbury,  
 both as an artist and a man, to appraise the three  
 Salisbury paintings and the 5 Charles Adams paintings.  
 He was not acquainted with Adams but knew his art  
 and some history about him. It is my opinion that he is  
 the most knowledgeable individual about Salisbury paintings  
 He <sup>(Morgan)</sup> was a close friend of Salisbury and they had a band  
 called the Filmore Group. Salisbury played the clarinet.  
 In the early period of Salisbury painting his colors and  
 tones were light, as example in the "Destiny" and Morgan  
 advised him to paint with stronger tones and color. "Taking  
 a Breather" is an example of his later change to brighter  
 colors. One of his best paintings was a group of turkeys  
 painted for Tanna from Indiana. The paintings at  
 Springville Central Bank are for security on Salisbury loans.



Harwood of the bank gave him the loans. The Central Bank of Provo also has some of Salisbury paintings. After checking the paintings, both at a distance and with magnifying glass his final appraisal was as follows:

Destiny - 20 - \$22,000. He said however that the paintings of equivalent size and quality are insured for \$35,000 in the Central Bank in Springville and that a recent painting stolen in Orem was insured for \$35,000. When I mentioned that I would like to sell for \$40,000 he <sup>said</sup> that it would not <sup>be</sup> unreasonable because of the fact the the painting is one of his earlier ones and therefore not as common and available as his more recent ones. He said Destiny is an early technique and light in color. Monument valley and horses extremely good especially the light colored one. Salisbury had a lot of experience in Southern Utah and the Navajo country. A painting about same size of Destiny but landscape of Timpanogos in spring is appraised as \$11,000 but figures in painting always carry a higher price. The composition of <sup>most</sup> Berg's painting is so that it is hard to get into the picture.

Harvester - 12 - \$14,000 This again is one of his early paintings and is light. Morgan knows of only 2 other paintings of draft horses; one with 3 in field and one painting where a draft horse is at a barn with cattle near by, but Harvester is better. One area seems incomplete (left side of machinery) man is subdued in favor of the draft horses. As Salisbury did not paint much in watercolor and so water color paintings are rare and because the Harvester is an early painting + different technique, one could set his own price and ask whatever the public will pay. He believes you might get a take at \$30,000

Taking a Breather - 20<sup>th</sup> - 22,000. This painting is a more recent one than Destiny with brilliant colors and bold animal. man good and not dominating. Although smaller than Destiny the painting is as valuable as Destiny and could compete price wise, although Destiny has the added value of being an earlier painting. \$30,000 would not be unreasonable.

People who might be interested:  
metropolitan and national museum as well as  
nelson museum + Spencer Museum.

Barnes Gallery at Scottsdale, Arizona have some Salisbury.

Calif. and Texas good states for Salisbury.

Farrar Junior High School in Provo has some Salisbury,  
some watercolors.

Public Library in Provo has one.

B.Y.U. not buying because they have no space, need  
an art museum.

Morgan gave BYU 4 paintings by Salisbury and got a  
\$11,000 tax write-off.

Dealer in Provo: Leeds Gallery, 398 N University Ave, Provo, Utah  
801-374-2735. Owner Carol DeWegele

Salisbury reproductions are valuable. Prints are not  
as profitable as selling the painting outright. Salisbury  
did not copyright. Copyright is a circle with © near name  
of painter.

Commissions are usually 40% but may be as low as  
25%. 10% is unrealistic. In buying you have  
only to satisfy yourself.

In the last 3 years of his life he was plagued with heart problems and in that period never produced as good a painting as when in good health.

Salisbury was always good to the people of Provo and sold his paintings at inexpensive prices. Later he withdrew many paintings from the market here and sold them elsewhere where he could demand higher prices.

Paintings purchased in 1977 or earlier will not be questioned by IRS. Must justify current price if donated and this is done by comparing with equivalent painting that have been sold. IRS is concerned about when pictures were purchased + price when sold and price appreciation.

Agreed that 15% appreciation per year is not unreasonable.

Morgan praised Adams paintings and said that Judge Ritter of Salt Lake City had many of Adams paintings in his office in S.L. but presently does not know where they are. He expects they may be in the Univ. of Utah Art Collection, while in Provo 2 photos 810412-33 and 810412-34 of apple blossoms.

Little Chalet, Sundance, mt. Timpanogas, Utah.

April 13, 1981

Sun arrive on lawn of Little Chalet at 6:12 A.M. Temp. 36°F  
Eutamias at feeder at 6:46 A.M. went to Moraine Chalet  
and at 7:35 A.M. found eagle off of nest. no clouds, sky dark blue, no wind. Snowslides as of yesterday without change. more water coming over Stewart's Falls. View thru Celestron exceptionally good. All cornices on ridge above Stewart's Cirque in tact but ready to go.

7:55 Eagle arrived and alighted on E side of nest where it remained for 4 minutes during which time it was adjusting the nest or feeding young.

7:59 settled on nest for 1 minute of gyrations and then all quiet.

8:55 off nest and I do not know when it left.

11:20 second falls below spread across falls and more water than yesterday by 2/3.

11:35 first delicate clouds arrived. and as they passed over ridge, <sup>to E</sup> they disappeared.

12:35 eagle arrived and now on nest. Day now hazy.

Left observation station and took 4 photos.

810413-34 Photo Sundance Parking Lot at sky left. Quite a change since early days when the area was unused.

810413-35 Photo of W side of moraine chalet showing full length windows. Taken from below.

810413-36 Stewart Cirque from porch of moraine chalet.

810413-37 Photo of reflection of Stewart Cirque from windows of W side moraine chalet.

Drove car to main road in Stewart's Canyon and hiked up Clearview moraine to photograph moraine chalet from N side of canyon. nearing top of moraine a Goshawk glided down canyon about 150' above trees and at 1:50 P.M. and in 1 minute later another Goshawk glided by in precisely the same route and speed. noted few

morning clock butterflies. On Clearview moraine took series of Kodachrome shots for Don and Jimmy. Put new Kodachrome 64 in and took pictures:

810413-38 Highlighted shot Cheops and part of Stewart Cirque.

810413-39 Stewart Cirque, Cheops and Terraces.

810413-40 Lower slopes of Facet Peak.

810413-41 same as no 810413-38

810413-42 Stewart Cirque from Clearview moraine with scrub oak in foreground.

when I left the ridge I left my binoculars on the ground so will plan on returning tomorrow to pick them up. As a result of this trip caught a good cold. Returned to Little Chalet.

Little Chalet, Sundance, Mt. Tumpunogas, Utah

April 14, 1981

B.P. 140/70, pulse 50, weather temp. 36°F. Because of cold did not exert myself.

10:00 Goshawk sailed down canyon directly overhead. The chickadees (mt. and black-capped), red-breasted nuthatch and jays are the main insect consumers. Striped skunk odor at chalet last night.

3:10 P.M. made single check of eagle nest and no bird on nest. when 5 Steller jays are at feeder they get along together when 4 there is usually antagonism. Three is usual number.

6:05 one observation only and no eagle on nest.

There is a major snowslide out of canyon between Elk Peak & Facet Peak but it did not go beyond base. Color yellowish brown as if it might have been a ground avalanche instead of the usual surface snow avalanches.

6:05 *Eutamias* still active.

6:10 Steller jay, gray-headed junco, Oregon junco & brown creeper still active. Temp. in 70's today.

6:40 P.M. Chickadees & Steller jay still active.

6:50 most birds inactive except hairy woodpecker. Sun now off all slopes. Could not retrieve binoculars today.

Little Chalet, Sunclance, mt. ~~Timpanogas~~, Utah.  
April 15, 1981 at 6:00 A.M.

Rained last night. Temp. 42°F this A.M. BP 150/78 42  
Steller jay active 5:40 A.M. Cabins among fir trees in rain more visible than without rain. 6:47 A.M. *Eutamias*

has taken several loads of peanuts from feeder.

From moraine chalet at 7:15 can see eagle on nest, but sitting so low it might be questionable whether she is on nest or not. About same amount of water in Stewart's Falls as yesterday. Clouds to base of Cirque.

Back at Little Chalet, a *Citellus armatus* rests on top of a pile of r.r. ties.

Made trip to Heber and enroute at Allens development area photo 810415-1 of Cascades shooting down <sup>Provo</sup> Canyon. 2 redtails circled above fields. Usual number of *Citellus armatus* which at this time is at an explosive population stage. They are all over the fields. At the State Park NW of Charleston observed an Osprey.

April 16, 1981

Made trip to retrieve binoculars I had left on Clearview moraine. Since April 13 when I left them it has rained a couple of times and as they are exposed to rain and sun I am wondering if there is damage to the glasses, by either the elements or animals. Enroute saw hermit thrush.

While on Clearview moraine with glasses heard a loud bang and saw snow sliding down from E side of Ashley Peak. The entire upper slope had broken away, leaving a fracture ridge in upper part of slope. The avalanche was confined lower to drainage canyon where it shot over irregularities of the drainage floor & ran up sides at turns.

In just a little over 1 minute it was at the base of the mountain and flowing out onto the flat area beyond the base or mouth of the canyon. For 3 minutes (to 9:30 A.M.) it maintained full force & volume, building up a huge delta of what would appear to cover several acres. This mass was in an area used by skiers during the winter season. The avalanche in the gully looked like water falls but was dirty and had some tree debris, many small trees were bent down in path of avalanche but were not uprooted. noise continuous until slide stopped. at 9:36 a golden eagle flew <sup>S</sup> past the upper limit of the avalanche at precisely the breakaway point. It did not stop to check it out but continued soaring <sup>S</sup>, (see photos (810416-16, 810416-17, 810416-21, 810417-2) for this avalanche, and 810417-3 and 810417-2).

Annette and I drove car to Aspen Grove to check on golden eagle nests. In lowest set of cliffs on S side of canyon toward falls are two nests, one of them an alternate nest site. From Aspen made 2 photos of terraces <sup>and mt.</sup> above falls to W. Nos 810416-12 and 810416-13

From a point on road just down road (N Fork) from Aspen made photograph 810416-14 of Stewart's Canyon area showing Stewart's Cirque, Cheops, entrance to Cheops Cirque, Stewart's Peak and broad platform E of Elk Peak in foreground.

Photo 810416-15 of part of eastern ski run (Sundance) with Evergreen mt to left. 810416-16 extension of above showing ski slopes to base of Ashley Peak mountain. Already they have constructed roads in this natural landscape. Why cannot they be satisfied with present area and not gouge out the background slopes to a rather beautiful setting. From a point between Robert Redford Turnoff and Sundance took several <sup>(6)</sup> general shots. No 810416-17 of Ashley Peak, entrance to Cheops Cirque to right and basal platform of Elk Peak to right foreground Eagle Cliff lowest center cliff. Upper reach of Overwhelm Trest on Ashley Peak on Stewart mountain. Cheops Cirque wall in distance.

Photo 810416-18 of Stewart Cirque with base (SE) of Elk mountain. Snow pattern shows extent of melt of season. Photo 810416-19 Stewart Cirque & Cheops to left. Position has changed from above photo <sup>being</sup> nearer to Sundance. Photo 810416-20 ibid but tel. Photo 810416-21 Elk Peak showing avalanche tract that was made 9:27 April 16, 1981. <sup>this AM</sup> Extent of break loose at top of slope near peak can be seen in photo

Photo 810416-22 part of Stewart Cirque and Cheaps to left.  
 Photo 810416-23 of Sundance at parking lot. Compare with 1925  
 photographs.

At Sundance Skiing area made several photos to  
 show change from original condition in Stewarts Flat area.  
 Photo 810416-24 of cut channel along parking lot that was  
 once a beautiful meandering stream bed. My suggestion is to  
 recreate original stream bed thru skiing area. Up road  
 along Stewart Creek are cabins now built out over stream,  
 road beds pushed into stream & vegetation removed. At  
 road where gate barrier in canyon forces road to hillside  
 is a creek that has old trees removed and man's debris  
 contaminating the creek bed and bank. This condition is  
 in no Photo 810416-25 Photo 810416-26 same area as  
 above. Photo 810416-27 Choked Creek bed in same area as  
 above. Photo 810416-28 shows garbage and debris being  
 forced into already choked creek bed. Same area as above  
 at sharp curve where road leaves canyon. Photo 810416-29  
 same as above.

From Little Chalet, watched <sup>with Gleston</sup> an eagle soaring and hunt-  
 ing over Wallsburg ridge at 6:50 P.M.

Some new genealogy - Linda Myers engaged to Jimmy,  
 Ken Myers Civil Engineer, Tom Meyers, Doctor, Lon Meyers  
 Contractor. Mike Smith married a Myers (Idaho).

- Developed <sup>(taken April 12, 1981)</sup> a roll of Kodocolor for Mary & Len and include:
- 810412-50 E side Little Chalet.
  - 810412-51 N side Little Chalet.
  - 810412-52 Fireplace, Little Chalet.
  - 810412-53 Cabins to E of Little Chalet.
  - 810412-54 Little Chalet.
  - 810412-55 Moraine Chalet NW of Little Chalet and owned by Mary & Len.
  - 810412-56 ibid
  - 810412-57 ibid
  - 810412-58 Stewart Cirque area from windows of moraine chalet.
  - 810412-59 Elk Peak from windows of above
  - 810412-60 Annette at chalet moraine.
  - 810412-61 ibid
  - 810412-62 ibid
  - 810412-63 "
  - 810412-64 ibid
  - 810412-65 Annette W side Little Chalet.
  - 810412-66 Stewarts Cirque from moraine chalet.
  - 810412-67 Stewart Cirque from Moraine Chalet.
  - 810412-68 Citellus armatus - Little Chalet.
  - 810412-69 Deer Creek Res & Timpanogos in background.

Little Chalet, Sundance, Mt. Timpunogas, Utah  
 April 17, 1981

Temp. 40°F at 7:00 A.M.

From moraine chalet at 7:30 A.M. observed 3 does and 1 faun of the mule deer. These are the first deer observed this trip and I have searched the ridges daily as far as open grounds prevails on ridges. They must just now be coming into area. The deer were on the lower part (E) of Clearview moraine straight N across the canyon from the chalet. One doe + faun kept together whereas the 2 other does kept together. They feed on open slope of moraine then travelled W up moraine & finally over ridge into timber. no new avalanches so far today.

drove down to N Fork road and at first bend to W parked car, Annette stayed in car, and at 8:40 A.M. ascended Deer Creek Ridge to Panorama Ridge reaching ridge at 10:35 or 1-hr + 55 min trip. Deer tracks (mule deer) were everywhere and must have spent the winter on this slope. Three imprints measured 56, 65, 70 mm and most trended downhill. At top<sup>(NE)</sup> of Panorama Ridge took six panoramic shots across Timpunogas as follows.

810417-1 To S from N. Fork Ridge to Squawknife Pass, Cascade peak in background.

810417-2 S. from Squawknife Pass to near top Ashley Peak.

810417-3 SW from Stewart Peak to + including Stewart Cirque.

810417-4 W from Facet Peak to beyond Elk Peak.

810417-5 NW from Aspen Grove to E edge Timpunogas.

810417-6 N from E edge Timpunogas to Lubert Redford property,

Thomomys on this ridge. also 4 holes made by lodger! although I did not see deer, their tracks were common, many old droppings, hillside bedding spots. One well used trail angles off from Redford fields and crosses Panorama Ridge where ridge contacts main mountain. Returned via this game trail to Redford property, thence S along base mt along old trail to car. I am more and more impressed with the idea of reserving most of Timpunogas for viewing only, which could be accomplished by vantage points, say one on Facet Peak and gained by helicopter + station package or better by tunnel, with viewing station completely in harmony with vantage point to the extent that it cannot be differentiated from vantage point. viewing station equipped for sleeping and subsistence and used by reservation. Ideally accommodation for one and not more than 2.



Little Chalet, Sundance, mt Timpanogos, Utah.

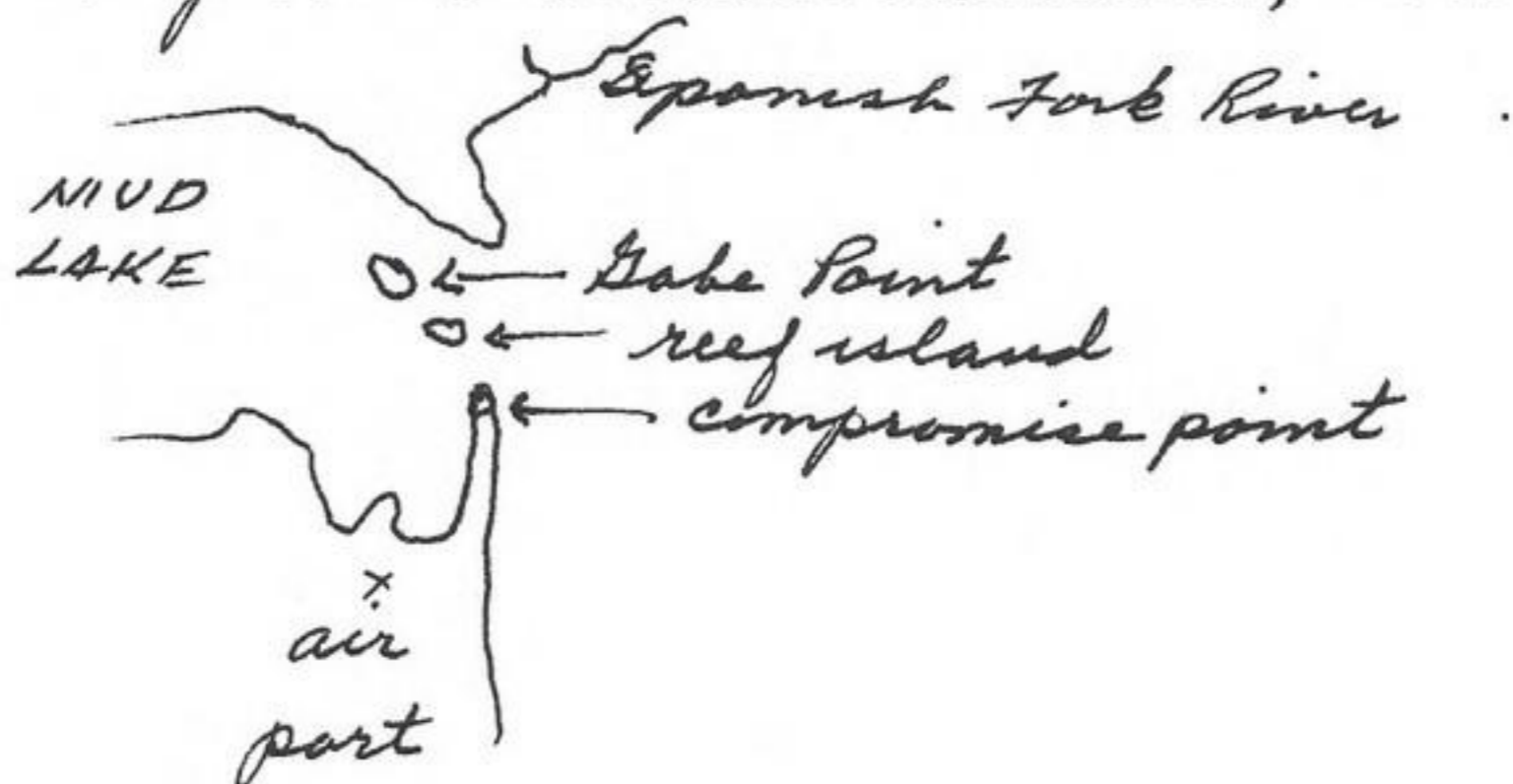
April 17, 1981

Left Sundance and visited Mary & Don in Grovo and at 6:45 P.M. left for Seattle. mileage 31300.0. Arrived Saratoga at N end Utah Lake at 8:00 P.M. closed so camped near front gates near the lake. no hot bath in springs tonight.

Saratoga, Utah Co., Utah.

April 18, 1981

min. temp 39°F, no wind. Birds in area, black-necked stilt, California gull, 2 cinnamon teal, Canada geese, 4 magpies, 30 redwings, starling, Eng. sparrow, pheasant (ring-necked), am coot. no birds on lake proper. water to road a gates to Saratoga, water in fields all along Utah Lake. noted yesterday at Mary on the Bonneville level, that mud Lake was high.



57°F

Left Saratoga 8:00 A.M.. Lehi 8:15, gas then back W. 100 white-faced ibis in pastures W of Lehi. also black necked stilt, coot, pied billed grebe and sparrow hawk. at Jordan Creek meadowlark and Horned Lark. Continued N thru narrow between SLC & Utah Co. and continued on Redwood Road to as far N as we could then main Interstate. Did not keep track of birds in the residential part of the valley. at Farmington Bay area noted 20 white-faced ibis, group pelicans and 2 long-billed curlew. From here to Sedney Bayles at Logan Utah. Visited with Ted and Rowena (they were preparing to fly to New Jersey to see one of their children. Ted doing much better than last year. Left 5:45 and W to Tremonton. The Logan Valley is extensive and has a low bank river meandering thru sloughs & wet meadows. Ducks, gulls and Killdeer here. Arrived at Snowville at 31521.4 and set up camp.

Snowville, Utah.

April 19, 1981

Temp inside 50°F. Rained all last night. Left at mileage 31523.1 at 7:10 A.M. Clear to S and cloudy to N. no wind. Robins and Brewer blackbirds on lawns in city. This town has horses & cattle barns in middle of town. meadowlark, meadowlark. Last night clouds on top of mts, this morning are now at base of mountains and tops are clear. meadowlark, 2 meadowlarks, 524.2 redtail hawk, meadowlark. 526.3 sparrow hawk, meadowlark, horned lark, meadowlark. 31529.2 Idaho. at 7:27 A.M. Good pygmy forest beyond state line. many of the juniper are flat topped and unusually so. Isolated trees are flatter on top than those trees in groups or in forest. 8 Brewer blackbirds. at 531.2 at mile post 273 is 531.9 on car speedometer dial. 32.3 redtail hawk on fence post. 33.5 roven. 35.2 4 Brewer blackbirds. 35.6 7 Brewers blackbirds at rest area. 36.2 roven, meadowlark. 37.0 roven. 37.3 sage thrasher. 37.8 roven, some old jackrabbit road kills. 38.8 roven nest on utility pole. 39.5 meadowlark & horned lark. 39.8 redtail Low clouds and storm area beyond. 263 exit to <sup>juniper road</sup> at 42.1 Good pygmy forests along mts, meadowlark. 43.9 Cassia Co. 47.3 sounds like Sweetair. 48.8 Brewer blackbird. 20 Brewer blackbirds. Exit 254, Sweetair Road 51.1 mileage. 2 Brewer blackbirds. 52.7 sparrow hawk. 53.8 5 Brewers, 5 cowbirds together, meadowlark. 58.8 2 horned larks exit 245. Sublette Road at 59.9 mileage 62.0 17 Brewers blackbirds. 62.3 roven. 63.0 3 horned larks, 2 horned larks, 2 horned larks. 63.5 meadowlark. 64.1 live jackrabbit, not too many road kills but occasional one. 64.8 jackrabbit road kill, horned lark. 65.1 horned lark, meadowlark. 66.6 roven. Exit 237 Idaho Home Road at overpass at 69.4, sparrow hawk. This valley is rapidly becoming wall to wall cultivation for wheat looking more like Potouse Prairie in Washington. It is time they think about preserving natural islands of vegetation. 70.2 Brewer blackbird. 70.3 Raft River 70.9 8 Brewers blackbirds. 72.0 roven. 73.7 rabbit road kill. (jackrabbit). 74.1 short-eared owl, characteristic wing flaps and wings carried high above the body. Exit 228 Declo Idaho at overpass 77.1 78.6 Calif. gulls. weather all

all weather to N and clear to S so far. now at divide and  
 overlooking Snake River Plains and unusually polluted  
 for this part of country. more like Salt Lake and Utah  
 valleys. Exit 222 to Pocatello at 82.7 mileage, also  
 raven. The overpass to Pocatello is 83.3 mileage. 3 Brewer  
 blackbirds. 87.2 2 horned larks. the valley more and  
 more developed with people, houses etc. duck on Canal  
 Brewer blackbird. Exit 216 to Oshosh. Overpass beyond at  
 88.9. 89.3 Snake River bridge. River full. 3 Brewer  
 blackbirds. 89.8 Franklin gull, yellow-headed  
 blackbird. ducks in barrow pit. there are more birds  
 in the Snake River Valley proper. Good sail. Canals all  
 full. Two ring-necked pheasants in short cut wheat field.  
 91.2 meridian road overpass. 2 Calif gulls. Exit 211  
 Burley at 94.3. at 8:55 A.M. Cormorant flew over Snake  
 River bridge. Stopped in Burley, now on 84 at milepost  
 208 at 601.5. Ducks in barrow pits. 602.5 80  
 Calif. Gulls and 2 crows. at 9:45 A.M. 04.0 pheasant  
 04.3 sparrow hawk. 14.0 Milner Dooding Canal.  
 Killdeer, 2 Brewer blackbirds. On N side Canal  
 approximately 300 gulls. 626.0 first magpie. 36.4  
 shrike, some magpie nests in area. 31.0 have been in  
 lava flow road cuts. Exit 173 at 36.4. at 10:25  
 magpie. 38.4 robin 39.5 magpie, 6 cowbirds. 41.1  
 meadowlark. 42.7 meadowlark. 43.9 meadowlark.  
 45.7 2 crows, sparrow hawk. 46.3 sparrow hawk.  
 47.0 meadowlark. 48.8 sparrow hawk, pheasant road  
 kill, pheasant in field. 50.8 ferruginous rough-leg hawk.  
 51.1 Lincoln Co. line. Am. roughleg hawk? and sparrow h.  
 55.6 meadowlark. 56.3 raven. 57.4 Shoshoni, 2  
 California gulls, 4 Calif. gulls, sparrow hawk. 48.5  
 meadowlark. 59.5 magpie, 61.4 2 Brewer blackbirds,  
 2 Brewer blackbirds. 62.4 8 Brewer blackbirds and  
 a yellow-headed blackbird. 73.5 redtail. Just beyond  
 Ice Cone considerable lava flow and very extensive.  
 75.5 Big Wood River. dry except for puddles, meadowlark,  
 76.2 Blaine Co. line, 11:25 A.M. 78.7 4 Brewer blackbirds  
 79.8 8 Brewer blackbirds 81.0 redtail hawk. at MP 100  
 my mileage = 83.6. 83.9 meadowlark. 85.7 junction 20.  
 at 11:45 A.M. 86.6 2 golden eagles soaring 1000' above  
 Calif gull. 89.9 Valley to W looks like it has been filled

with lova, 2 robins, 93.8 redtail hawk, 705.5 2  
 red-shafted flickers, 05.9 Bigwood River, hillside to w  
 with approx 50 diggups by badger, 07.5 Conifers and  
 aspen and riparian Cottonwood. River showing gravel  
 bars, sparrow hawk at Sun Valley, 719.8 highest point  
 reached near warm springs where there are many beaver.  
 at 6,000 feet. made short trip up highway 93 then returned.  
 Photo 810419-1 of ski runs at Sun Valley. Skiers still on slopes  
 but runs wet and slushy, not impressed with Sun Valley  
 at least for this time of year. Left Sun Valley 2:30 P.M.  
 at mileage 728.6 and returned highway 93. Snow off  
 grounds except certain exposures on hills. but a lot of  
 snow on n side of houses piled against the n side.  
 threatening skies to S & W beyond mouth of canyon. 2  
 ducks flying by at first. wooden bridge (river). now  
 raining. Grasses on sidehills whitish green in upper  
 reaches of canyon but green as one approaches mouth of  
 canyon into valley. 47.3 now out of canyon. Cottonwood  
 Catkins blowing into road. 750.7 sparrow hawk in rain  
 75.0 at junction 20 W, 56.2 8000 gulls in field (Calif).  
 waiting for storm to pass by, 18 Brewer blackbirds, 5  
 cowbirds. all sitting in field for rain to go by. Big Wood  
 River 65.9 67.3 13 Brewers blackbirds, rain letting  
 up. Cottonwoods & willows in river valley, sparrow hawk.  
 River 30% pebbles, 2 Brewer blackbirds. 58.8 15 Brewer  
 blackbirds. 60.6 60 Brewer blackbirds, 62.4 24 Brewer  
 blackbirds, 62.7 farm pond & 100 ducks & 20 Brewers  
 blackbirds. 65.0 4 Brewer blackbirds, meadowlark.  
 68.0 Kansas Co. line 69.9 60 Brewer blackbirds  
 70.1 sparrow hawk. 73.1 12 Brewer blackbirds. 74.1 Town-  
 send ground squirrel ran across road first one observed,  
 also 5 Brewers blackbirds, 2 Brewer blackbirds. 75.3  
 3 Brewer blackbirds, 1 crow. 77.0 junction 46.  
 at 3:40 P.M. 79.2 raven. 80.0 2 Brewer blackbirds,  
 Calif gull, Brewer blackbird. 81.0 middle Fairfield, Brewer  
 blackbird, 2 Calif gulls. 82.3 2 crows. clouds passing  
 to n have put down snow on mts. Brewer blackbird,  
 meadowlark. 83.5 3 Brewer, 1 crow. 84.3 18 Brewers.  
 85.3 sparrow hawk remained on road as trailer passed within  
 3 feet, (snow marker). 85.4 sparrow hawk. 85.9 60 Brewer  
 blackbirds, horned lark 87.8 16 Brewer blackbirds. 88.4

*Citellus townsendii*. 18 Brewer blackbirds. 90.1 15 Brewer  
 blackbirds. 91.3 sparrow hawk, 4 Brewers blackbirds,  
 31796.8 just beyond Heli City on highway 68. 96.9 20  
 Brewer blackbirds. 97.5 5 Brewer blackbirds. 804.3  
 crow, 18 Brewer blackbirds. 06.5 sparrow hawk at  
 5600 ft. 08.6 5522 at divide in Boise Natl Forest.  
 09.8 crow. 13.2? 18.2? Camas Reservoir at milepost 120.  
 14.0 crossing outlet of reservoir, Redwing, redwing. 15.0  
 Brewer blackbird. 17.6 6 Brewer blackbirds. first  
 mourning dove. 18.4 redtaillike hawk. now raining  
 and bad weather settling in. 27.9 20 Brewers blackbirds  
 30.2 bottom canyon. Leaves out on willow trees. Good  
 catkins on cattawoods whereas high up canyon trees bare  
 of winter. 30.8 60 Brewer blackbirds. 31.8 sparrow hawk,  
 meadowlark, 35.0 raven. 37.5 middle dam of Mountain  
 Home Reservoir, going W. Killdeer, mallards, sandpipers  
 and several species of ducks (300). Checked W end of dam  
 of wet muddy road and then returned to overflow of dam  
 at mileage 31838.0 where we camped for tonight. at 5:30  
 P.M.

Dam Overflow, Mt. Home Reservoir, Idaho  
~~near~~ ~~mountain~~ ~~reservoir~~  
 April 20, 1981

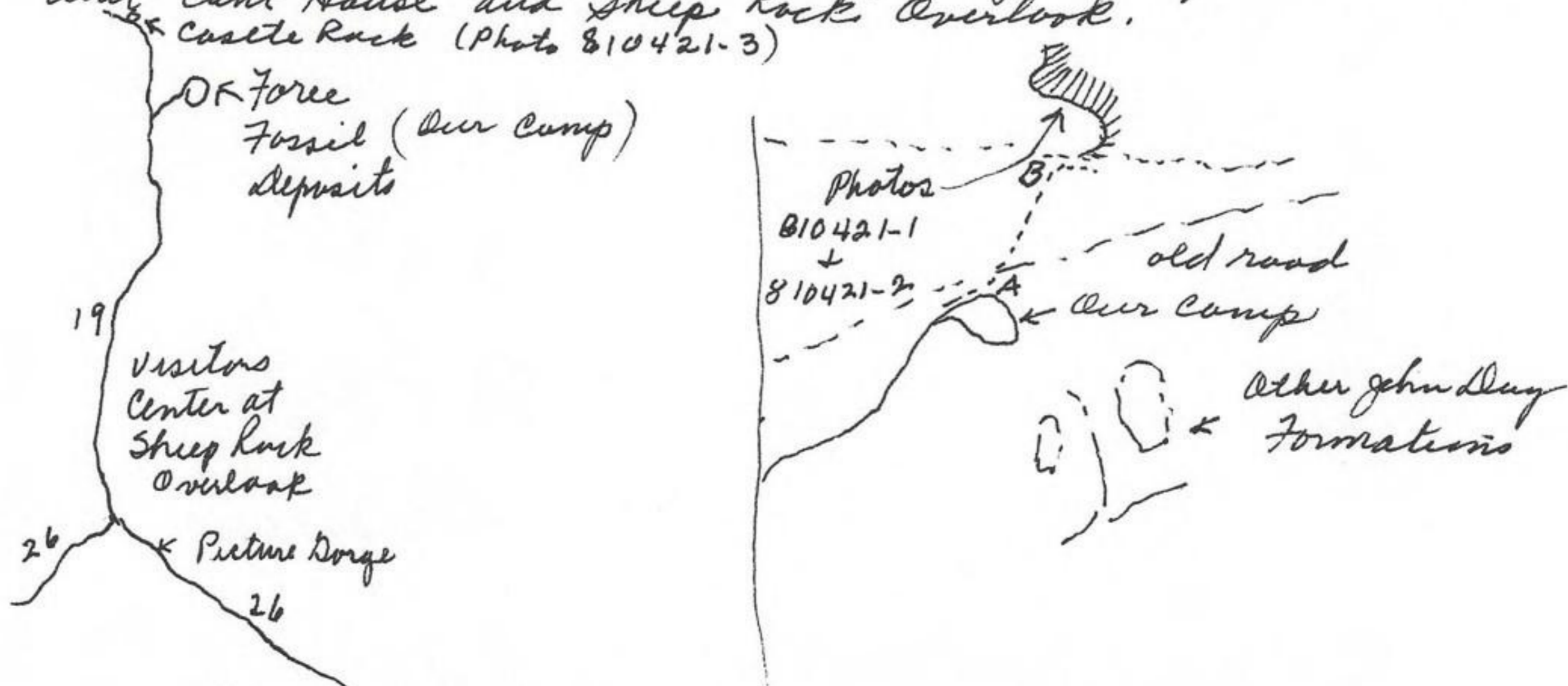
min. temp 43°F. at 7:15 A.M. 47°F. BP. 160/80 46. Rained  
 all night but not worried in being camped in overflow.  
 Birds in reservoir, mainly at dam: Avocet, one group approx.  
 60, several individuals and 4 pairs. 18 coot; 60 pairs  
 mallards; 16 baldpate, 14 spoonbills; 3 killdeer; 4  
 common loons in one group; 2 Calif gulls; 295 scarp;  
 100 swallows (sp.); 20 barn swallows; 12 buffle heads, 65  
 Brewers blackbirds, 4 redwing blackbirds, magpie; pintail  
 3; 6 ruddy ducks; 18 green-winged teal. Left 9:00 A.M.  
 49.6 horned lark, 50.2 at milepost 88. 50.3 marsh hawk.  
 56.7 2 Brewer blackbirds. 62.0 3 Brewer blackbirds.  
 Exit 74 Simco 63.9 at overpass (underpass on this road).  
 3 Brewer blackbirds. 65.7 88 exit? <sup>M.P.</sup> 9:55 A.M. 67.8 lake to  
 5, <sup>(Indian Creek Res)</sup> marsh hawk, 4 Brewer blackbirds, no ducks. Exit 64 Black Cr.  
 at 74.8.0 at underpass. 77.6 badger road kill. Advancing  
 clouds slope 45° toward the front. Exit 50 into Boise at  
 88.2 at underpass mileage (one of the exits), 2 Brewer blackbirds  
 thru town on Interstate, magpie. <sup>90.2</sup> 94.7 magpie flying out from

from overpass bridge. 96.0 redwing. 98.4 Canyon Co.  
 10:50 A.M. 907.0 magpie 09.2 pheasant. 11.8 Boise River  
 lot of debris in river (mud) 15.9 magpie. 16.0 sparrow hawk.  
 magpie nest. 19.5 3 Brewer blackbirds & 1 redwing blackbird,  
 19.9 magpie, 12 redwings along cattail drainage. 21.3  
 Payette Co. line, 24.1 magpie. 30.2 increase in ground squirrel  
 diggings 31.8 magpie. 33.6 magpie. 36.1 sparrow hawk.  
 and 3 Calif. gulls. 36.7 sparrow hawk. Snake River high,  
 top of bank. 38.5 Snake River at 11:40 A.M. 38.7 Oregon  
 same time. 49.8 Butte Drive to N and bend of road that  
 turn S.W. 51.7 2 Brewers blackbirds, Brewer blackbird.  
 Hill slopes have more green grass to top than elsewhere.  
 54.2 4 Brewer blackbirds. Citellus holes still prominent.  
 57.5 Turn now on 26 at Vail, Oregon at 1:10 P.M. 59.6  
 pheasant, ♀. 60.4 crow. sky clear to W, redtail hawk at  
 61.3 61.5 sparrow hawk and blackbird (Brewers).  
 62.0 raven. 63.0 pheasant road kill. 63.3 2 pheasant  
 rd. kills. 64.4 Redwing, cowbird. 65.2 2 Brewer  
 blackbirds, crow, 5 Brewers, redwing, 2 Brewers blackbirds  
 66.3 magpie, Brewers blackbird. 66.9 2 Calif. Quail, 2  
 Brewers blackbirds. 67.6 redtail on nest in Cottonwood  
 tree. 68.0 2 Calif. quail. 69.0 Wellaw Creek, 69.5 crow.  
 71.2 Crow + 6 Brewer blackbirds, 4 Brewers blackbirds.  
 barn swallow, 72.9 4 raven. 75.1 Jamieson. 76.7 raven  
 80.2 magpie, 2 crows. 81.2 Oregon, 2 Brewer blackbirds.  
 81.6 meadowlark. 84.0 ferruginous roughleg. 84.9 Brewers  
 blackbird. 86.0 2 magpies, Artemisia appears dead in valley.  
 and looks like intentional poisoning to grow grass which is  
 all over hillside. 88.2 raven. 88.3 Summit Logan Hill  
 3983 feet. 93.0 Cow Creek, 32004.0 Citellus <sup>from</sup> top of hill down into  
 burnt side. 04.3 Ironsides 05.0 2 raven & Brewer blackbird.  
 Brewer blackbird. 08.1 Citellus. 08.4 redtail (2), Brewer  
 blackbird. 08.7 Cottontail, a young one and alive, 2 more  
 Citellus. 10.2 redtail hawk nest in tree. 10.6 golden eagle  
 12.4 roughleg hawk? 12.2 Baker Co. Eldorado Summit, 4623 ft.  
 at 2:38 P.M. the two passes so far have led to upland  
 plateaus rather than down grades. 15.7 Reservoir to right 8 cont  
 5 mallards, 9 cinnamon teal, 1 muskrat, chickadee. 15.1  
 redtail being attacked by 2 sparrow hawks. Creek murky,  
 not clear & full. now going thru ponderosa pine and  
 juniper & birch, willow along river, aspen & cliff rose. 15.6

11 mule deer, all does + small ones, 3 robins. These deer were standing on shoulder of road on bend and if they had been on road + with a high speed car, would have got it. 16.3 Camp Creek. 16.5 200' tree cut by beaver and completely interrupted growth along the creek for more room for more trees. 17.0 5 antelope ♀♀ on hillside to right, and a raven circling above them. 2:45 P.M. (1:45 Pacific Standard Time), Brewer blackbird. 20.8 sparrow hawk. 21.6 reservoir to N. (Unity Res). 22.0 Unity 25.2 raven, 26.2 S South Fork Burn River. 50 Brewer blackbirds and sparrow hawk. 28.0 Into juniper forests, but a few ponderosa pine. 32.5 Recorder malfunctioned and no record to Force Fossil Beds. A photo taken of wilderness area of Strawberry Range 810420-1 taken somewhere between Prater City + John Day. This range and valley have been formed by large faults (E.W). It is one of the most delightful places we have seen because of scenic beauty and lack of human development. There is an organized plan by ranchers and others to keep it this way by require land sold at great acreage and exorbitant prices that no one can afford, thus there are no single houses <sup>(summer homes)</sup> ~~set out~~ around the country. The recorder need battery charge and could not decipher any notes so will conclude today and start with April 21 at tonight's camp site.

Force Fossil Beds, John Day River, Oregon  
~~in the~~  
 April 21, 1981

BP 150/78 44. This camp is on highway 19 S of the visitor center and Cant House and Sheep Rock Overlook.



Ranger permitted us to camp in parking area of picnic grounds at the Force Fossil Deposits because of out of season period. From camp A across slope to B on old trail counted 71 mule deer imprints, three of them measuring: 66 mm, 68 mm, 78 mm, 90 mm & 95 mm. Most of these were moving up or down slope from higher country to field below in valley, most of them near brink of gully at B leading up along side & beyond outcrops. Pinyon jays, red-shafted flicker & 2 ravens observed along this trail. At least 8 major deer trails cross this old trail between A & B. Also along the route were loggerhead shrike, 2 prs mourning doves, chickadee, jackrabbit, chucker partridge. Photos 810421-1 and 810421-2 a vertical pair of 2 photos, these can be matched and the succession of deposit mapped. Left Force Fossil beds and continued N on high way. Not far beyond is the Cathedral which is an ancient land slide, scoria layer conglomerate. The Columbian lava flows 1000' or so are on W side canyon whereas the John Day outcrops are on E side. Mostly of Eocene, Oligocene, Miocene & Pliocene. Pleistocene, Holocene & some Cretaceous (upper) are represented. Photo 810421-3 is of Cathedral. 2 Raven flew by here. The recorder malfunctioned because of weak batteries from yesterday to Portland to as far as Tautle River in Washington. I was only able to get an occasional name so have included the info (without locality except between the two points mentioned) for what its worth. Left Camp Force Fossil Deposits at mileage 31121.4 at 10:00 A.M. Brewer blackbird, robin, Brewer blackbird, Brewer blackbird, redwing, redwing, oriole nest, robin, Brewers, Brewers, sparrow hawk, magpie, 2 Citellus 5 Citellus, redwing, swallow, Citellus, redwing, 44.8 N Fork John Day. magpie, Citellus, 42.0 Pass, bluebird mt, 45.1 50 Canada geese, as mentioned these are just a few of the words I was able to get from the unintelligible content of reel. I presume that the area is between Force Fossil Beds & Maupin, Oregon, or maybe farther east than Maupin.

At Timberline lodge visibility about 50' and snow 1/2 way up glass on N side. Snow covering ground. Continued down road to Maupin, Oregon where we camped that evening.

Maupin, Oregon

April 22, 1981

Camped here last night on the Deschutes River, down river from Maupin proper. min temp last night 53° F. Beautiful River



but some white deposit on rocks as if from water pollution.  
 Cloudy, no wind. Crow called at river. 2 raven at  
 camp. meadowlark singing. Left 8:30 AM at mileage  
 32318.9 one hackberry at camp (E side river measured  
 at 2 feet 5" in circumference. new leaves from bases of dead  
 leaves 1/2 to 1 inch long. As recorder malfunction  
 did not record from here to Portland. where we arrived in  
 afternoon (see previous page for Timberline Lodge notation)

Portland, Oregon  
~~unsub~~

April 23, 1981

Stayed at David Bee's last night. He has a nice place and  
 nicely furnished. He drove the family and us thru the large  
 electronic plant where he works with Computer systems.  
 B.P. 140/80. 44. Left in AM for Salt Water State Park in  
 Washington. At Toutle River left Interstate and drove E a  
 mile to old bridge over the river where we photographed the  
 evidence of the flood waters and ash from Mt. St. Helens.  
 Photo 810423-1 shooting down Toutle River towards the  
 Interstate Bridge. The entire river valley affected by the  
 ash is being bulldozed out and piled in ridges outside the  
 flooded area so that normal erosion of the river will not  
 continuously erode the old ash into the water system.  
 Photo 810423-2 E from bridge showing ring mark of ash at its  
 highest level, most prominently marked on conifer trees in  
 foreground and also on tree beyond curve. This might make  
 a barrier to insects that spend some of their reproductive cycle  
 in trees. Continued N on Interstate 5, birds rare on highway  
 but so far to Toutle River from Portland. 5 raven + 4 crows.  
 Continued to Salt Water State Park where we camped between bridges  
 along creek. We will stay here until April 30 when we will move to  
 Pack Park State Park. In the interim we will visit with Chris  
 (Annette Bee our daughter) in Seattle with home base at Salt Water  
 State Park or elsewhere. Arrived Salt Water State Park 32 656.2  
 mileage at 4:30 P.M.

King Co.  
~~unsub~~

Salt Water State Park, Seattle, Washington  
~~unsub~~

Aug 24, 1981

This park is about 3-4 miles S of Allynnes which is S of Seattle  
 and is on the East Passage of the <sup>Puget</sup> Sound. B.P. 150/72 42  
 This A.M. check all birds of area including forests, beach and passage.

Birds: observed: Barrow Goldeneye, red-necked grebe, crow, glaucous-winged gull, robin, fox sparrow, house wren. (feeding young), audubon warbler, herring gull, scater, Steller jay, black brant, great blue heron, black-capped chickadee (2 nests & young), red-shafted flicker, mallard, song sparrow, common loon, common golden eye, surf scater, white-winged scater. hermit thrush, rufous-side towhee, cormorant, Herring gull, duck, Calif. quail, horned grebe, golden crowned sparrow, white crowned sparrow, Bonaparte gull, house finch, pine siskin.

Picked up a Sorex in trail in forest  
810424-1 Sorex vagrans 106-40-12-6, 6 gms ♀ skull only.  
Spent the evening and night with Chris in Seattle. 20.7 miles from Saltwater State Park to Chris' at 4526 47<sup>th</sup> NE, 325-6160.

4526 47<sup>th</sup> NE, Seattle Washington  
April 25

BP 150/75 44 Stayed Chris' last night and visited the city,

Saltwater State Park, King Co. Seattle, Washington.

BP 128/68 42 (lowest in day so far 102/52 42.) At water passage (East Passage) noted black brant fly abreast and practically on the water. A group of 43 flying N, 3 left group and alighted on State Park beach. Left and drove to Chris' (Annette Christine Bee) home in Seattle. Enroute along W side Washington Lake noted 26 western grebes about 200 feet from shore in one group along N end of Stewart Park, at 11:00 A.M. and at some place at 6:00 P.M. the same day. Also noted baldpates, mallards, coot and shovellers.

April 27, 1981

Sayed in camp today.

April 28, 1981

min temp 43°F, cloudy, no wind. BP 132/70 50. In afternoon visited Chris. Went to Polish Center at 1714 18<sup>th</sup> NE and watched Chris' group of Polish folk dancers perform for the Polish population of Seattle. was received with ovation. Annette + I danced with group for one of the special dances of introduction.

April 29, 1981

Remained at Camp. BP 120/65 50 min. Temp 53°F Oregon juncos in camp. Bob Eiler, a friend of Chris invited us to supper at Normandy Beach. Birds recorded from Saltwater S. Park are:

Birds observed at Salt Water State Park, King Co., Wash-  
ington. April 24-29, 1981 by James W Bee, museum  
natural History, Univ. Kansas, Lawrence, Kansas 66044.

Common loon - *Gavia immer*  
western grebe - *Aechmophorus occidentalis*  
red-necked grebe - *Podiceps grisegena*  
horned grebe - *Podiceps auritus*  
pied-billed grebe - *Podilymbus podiceps*  
double-crested cormorant - *Phalacrocorax auritus*  
Canada goose - *Branta canadensis*  
black brant - *Branta nigricans*  
mallard - *Anas platyrhynchos*  
pintail - *Anas acuta*  
gadwall - *Anas strepera*  
American widgeon - *mareca americana*  
shoveller - *Spatula clypeata*  
green-winged teal - *Anas carolinensis*  
greater scaup - *Aythya marila*  
common goldeneye - *Bucephala clangula*  
Barrow's goldeneye - *Bucephala islandica*  
bufflehead - *Bucephala albeola*  
Harlequin duck - *Histionicus histionicus*  
common scoter - *Oidemia nigra*  
white-winged scoter - *melanitta deglandii*  
surf scoter - *melanitta perspicillata*  
hooded merganser - *Lophodytes cucullata*  
California quail - *Lophortyx californicus*  
great blue heron - *Ardea herodias*  
American coot - *Fulica americana*  
killdeer - *Charadrius vociferus*  
glaucous-winged gull - *Larus glaucescens*  
herring gull - *Larus argentatus*  
Bonaparte gull - *Larus philadelphia*  
band-tailed pigeon - *Columba fasciata*  
pygmy owl - *Glaucidium gnoma*  
rufous hummingbird - *Selasphorus rufus*  
belted kingfisher - *megascyle alcyon*  
red-shafted flicker - *Colaptes cafer*  
hairy woodpecker - *Dendrocopus villosus*  
barn swallow - *Hirundo rustica*

Steller's jay - *Cyanocitta stelleri*  
 Northwestern Crow - *Corvus lawrinus*  
 black-capped chickadee - *Parus atricapillus*  
 common bushtit - *Psaltriparus minimus*  
 house wren - *Troglodytes aedon*  
 winter wren - *Troglodytes troglodytes*  
 robin - *Turdus migratorius*  
 hermit thrush - *Sylocichla guttata*  
 starling - *Sturnus vulgaris*  
 Audubon warbler - *Dendroica auduboni*  
 house sparrow - *Passer domesticus*  
 brown-headed cowbird - *Molothrus ater*  
 house finch - *Carpodacus mexicanus*  
 pine siskin - *Spinus pinus*  
 American goldfinch - *Spinus tristis*  
 rufous-sided towhee - *Pipilo erythrophthalmus*  
 Oregon junco - *Junco oregonus*  
 white-crowned sparrow - *Zonotrichia leucophrys*  
 golden-crowned sparrow - *Zonotrichia atricapilla*  
 fox sparrow - *Passerella iliaca*  
 song sparrow - *Melospiza melodia*  
 red-tailed hawk - *Buteo jamaicensis*  
 pileated woodpecker - *Dryocopus pileatus*  
 yellow warbler - *Dendroica petechia*  
 evening grosbeak - *Hesperiphona vespertina*

Salt Water State Park, King Co., S Seattle, Washington:  
 April 30, 1981

moved camp to <sup>pt.</sup> Dush State Park N of Tacoma on East Passage.  
 mileage to Chris' 28.3 miles. Robin nest of 4 eggs.

Point Dash State Park, Pierce Co., Washington:  
 May 1, 1981

Drove to Gig Harbor. Photo 810501-1 of sailboat at W end harbor. Bordered by introduced yellow flower. Great blue heron in bay area.

May 2, 1981

Picked up Chris in Seattle and drove S, <sup>massy Rock</sup> to vantage point overlooking Mt. St. Helens to S but clouds inhibited view, BP 130/65 50. On way back we visited a State Wild Life Park where we rode around the park in a special bus & photographed the wildlife:

- Photo 810502-1 deer head on
- " 810502-2 mt. sheep
- " 810502-3 wild turkey
- " 810502-4 buffalo.
- " 810502-5 This wild turkey flew 100' an almost alighted on another turkey in combat.
- " 810502-6 Bald eagle
- " 810502-7 Snowy owl.
- " 810502-8 " "

also observed mt goats, raccoon, white-tailed deer, moose, golden eagle, muskrat, chuckaree - all captive on this nature park.

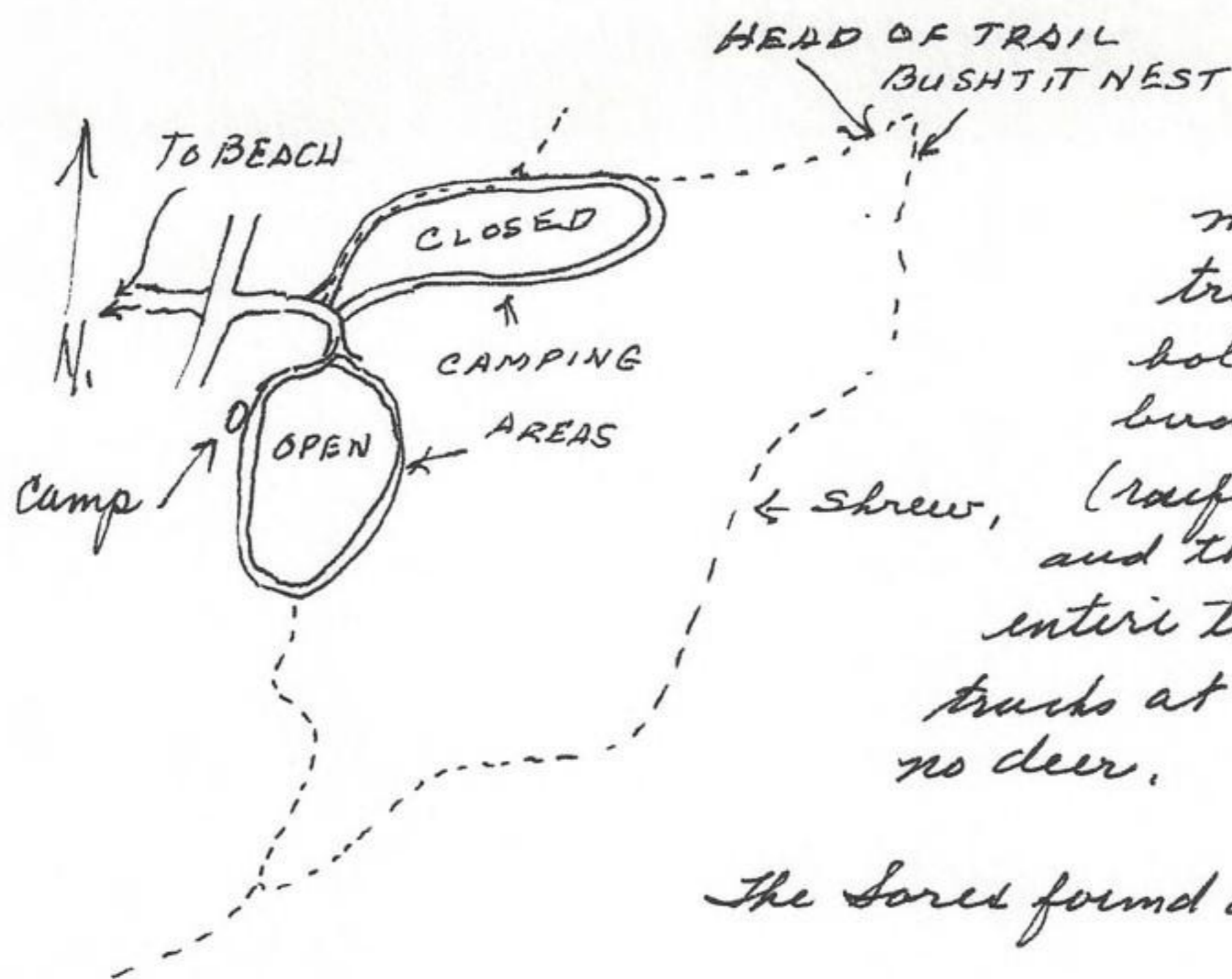
May 3, 1981

Visited Chris. Min temp at camp 43°F, BP 160/65 44 at Chris' two photos:

- 810503-1 me ju Bee
- 810503-2 Annette Christine Bee

May 4, 1981

min temp 39°F. BP 155/78 42. Hiked trail this AM which follows boundary of Park.



moles through trees. mt. beaver holes present. Other birds are 2 towhees (rainbow sided), 1 robin, and these only birds along entire trip. Raccoon tracks at 5 places along trail. no deer. chickarees present.

The Sorex found dead on trail.

← TO BEACH SKU 810504-1 Sorex 121-56-13-8 ♂ 6.5 gms.  
120 seeds of madrona per 1 sq. foot ground (cement road) below.  
width was the area of foliage above.

May 5, 1981

min temp 41°F, no wind, clear. BP 150/80 44 at camp  
noted a band-tailed pigeon, a black capped chickadee fed  
3' away from me and showed no fear.

May 6, 1981

min. temp 43°F, BP 122/75 50. This A.M. made trip to head  
of trail and kept complete record: 9:15 A.M. start (see map above  
for route to head (same as previous trip but only to head)).

2 chestnut-backed Chickadees, robin, green slug (green) 140  
mm long when full extent, bush tit, black slug 92 mm long,  
2 robins, greenish warbler, 2 fox sparrows, Oregon junco,  
Townsend Chipmunk (fed 20' away) 2 juncos sp? Now at  
E end of road in upper camp and following trail, Oregon junco,  
Oregon junco, 2 Oregon juncos, slug 140 mm long. A shrew  
found dead in trail (from exposure):

SKU 810506-1 Sorex 120-55-14-9 ♀ 8 gms. black bi-colored tail, skull only

Another shrew found in trail dead is:

SKU 810506-2 Sorex 110-50-13-8-4 gms ♂ skull only These shrews are  
frequently found dead in trail. They die because of exposure.  
or perhaps a bird or other animal kill it and then left it  
in the trail although I have never found evidence on the body  
or skin of shrews that would indicate that it had been attacked.

Continued on trail. slug 150 mm long, robin, 2 towhees.  
 End of trail at 9:50 A.M. Street number beyond 321 SW.  
 There were some dead limbs in trail and a census of number,  
 kinds and size of limb for period of a year might prove  
 something about condition of forest etc. Heard a fox sparrow  
 call of 4 rapid soled notes in same key.

This P.M. to Chris in Seattle where we had a party with  
 group living in house. Steve Tanager barbecued chicken  
 which was very tasty.

Dash Point State Park, Pierce Co., N Tacoma, Washington.  
 May 7, 1981.

Min temp 46°F, sky overcast, cool. BP 140/75 48 made  
 census along trails today. 10:20 canyon trail to beach:  
 crow, robin, slug 155 mm, hermit thrush, robin with  
 4 eggs still incubating (see when first noted), at bay 10:15  
 2 pine siskin, 2 goldfinch, *Eutamias townsendii* in  
 debris at upper edge of beach in open area (no trees).  
 8 Bonaparte gulls, 8 glaucous wing gulls, 8 barnswallows,  
 common loon, 2 western grebe, 3 black brant, 3 white-  
 winged scoters, 2 mallards. The large slugs can either be  
 green or black body posteriorly. From bay walked up  
 road to canyon that leads to top. Here 2 pileolated wood-  
 peckers flew down canyon among the trees with two  
 crows in hot pursuit. End census.

at 12:45 made trip to east end of park (see map).  
 Oregon junco, robin, robin, Oregon junco, robin (end  
 road, now on trail) shrew in trail dead.

SKU 810507-1 Sorex 108-45-13-7-6 gms ♀ skull only.

There are more madrone berries beneath trees than 2 days  
 ago. Yellow warbler. 2:10 P.M. end of trail at E boundary.  
 Visited Chris and moved <sup>back</sup> to Saltwater State Park.  
 met superintendent of park, Mr Bob Fogstad, who said that  
 at one time there were deer in the park. There are coyotes  
 in park. Yesterday a bald eagle was observed on beach in  
 park. Fogstad raises bantam chickens and ferrets. He  
 gave me permission to trap small mammals in the State  
 Park and says he has authority over State Fish & Game.  
 when and if we come back he will so arranged for trapping.  
 On way to Saltwater State Park noted 14 evening Grosbeaks.  
 Steve brought Chris to camp and had supper with us. Chris  
 remained and is to join us to Olympic N.P. & Fort Townsend.

Salt Water State Park, King Co., Washington  
May 8, 1981

min temp 39°F BP 135/78 42 Annette, Chris & I left park and drove S thru Tacoma (N end) thence N on highway 16 to 302 thence SW to 101, thence N to Rosewallips State Park to camp. Rained most of the night.

Rosewallips State Park, Washington  
May 9, 1981

min temp 49°F, rain last night. BP 130/68 44 Left camp and continued to Olympic National Park. checked visitor center, Heather Park and from there to Hurricane Ridge. Enroute between Heather Park and Hurricane Ridge at a point beginning on W exposure of range part of road to several photo of black-tailed deer:

Photo 810509-1 deer on edge of road, main range in background. animals are in good condition after having gone thru the winter.

Photo 810509-2 same deer as above.

Photo 810509-3 another individual of same group as above.

Photo 810509-4 of 2 peaks and glacier between. These peaks to SW from Hurricane Ridge are part of the Bailey Range and my guess is that the <sup>high</sup> one in the photo is Stephen Peak (!?)

Photo 810509-5 is of Bailey Range with Stephen Peak to left and Mt Carrie to right. This area may all be part of Mt Carrie complex. Snowline relatively high for this part of the year. Long snow patches produced by wind and formed on leeward side of ridges still remain on the west exposures of the foreground. A single black-tailed deer is at edge of a patch of snow on distant ridge

Photo 810509-6 a black-tailed deer in foreground and Mt Carrie complex of peaks in Bailey Range.

Photo 810509-7 Annette Christine Bee on Hurricane ridge looking eastward.

Photo 810509-8 Annette P. Bee in same area as above.

Photo 810509-9 Mt. Angeles to ENE from lodge on Hurricane ridge

Photo 810509-10 Annette P on Hurricane Ridge in Olympic Natl Park

Photo 810509-11 Annette C & Annette P on snow bank on Hurricane Ridge, Mt Carrie peaks in background.

Photo 810509-12 Annette C about to jump over a crevasse on Hurricane Ridge.



Photo 810509-13 Annette Christine climbing out of crevasse on Hurricane ridge.

Photo 810509-14 Annette slipping back into crevasse.

Photo 810509-15 Bailey Range NW Hurricane Ridge. Snow bank in foreground.

Photo 810509-16 Bailey Range, Stephen Peak? from Hurricane Ridge.

Photo 810509-17 ibid

Photo 810509-18 Mt. Peaks to E of Hurricane Ridge

Photo 810509-19 Mt. Angeles <sup>to N</sup>, on return down Klakhan Ridge

Photo 810509-20 Mt. Angeles to N from road down Klakhan Ridge.

Photo 810509-21 black-tailed deer by a water drainage on Klakhan Ridge Road near E end.

Photo 810509-22 Mt. Goat from road on Klakhan Ridge near E end of road before it turns N.

Photo 810509-23 Lighted ridge from Klakhan road shooting S. Same area as above 2 photos.

Photo 810509-24 Moss covered cliff in same area as above

Photo 810509-25 Ridge (Elk Mt?) to S at point where road turns N on Klakhan Ridge road.

Continued on to Heart of the Hills and from sign at trail head recored miles. Halfway rock 2.5, Heather Park 4.3 Klakhan Ridge 6.2, Hurricane road 10 mi.

at Port Angeles photo 810509-26 of Mt. Angeles mt.?

Returned to Fort Townsend and stayed at Mot's home.

### Fort Townsend, Washington

May 10, 1981

Min temp 47°F, BP 160/80 46. Spent part of day on an intelligence tour of the City with Mot at the helm. This town is picturesque and elegant. At one time practically all the west coast commerce was carried out by sailing vessels. There are many charming Victorian-period homes, one the George Starrett House was photographed 810510-1. This house is at 744 Clay Street and was built <sup>by a mill owner and capitalist</sup> in 1889. Another Victorian home is no. 810510-2. The rhododendron is the state flower and most of the homes have at least one plant. Photo 810510-3 is this plant. One of the most conspicuous flower that grow mainly outside of the city is an introduced plant used to abridge and beautify road cuts and right-of-ways. Photo 810510-4 is of this yellow broom.

The white azalea is also a common city plant and grows about homes. Photo 810510-5 is of this flower. <sup>Fort</sup> Photo 810510-6 is yellow broom taken from the <sup>1</sup> Worden State Park on the SE Peninsula.

Other old homes in Port Townsend are; James Home corners Harrison + Washington Streets; Leader building, 1874 at which time it was a courthouse. Episcopal Church corners Jefferson + Tyler Streets, 1865. Bell donated by Captain who requested it be rung on foggy nights; Plummer House corners Park + Jefferson Streets 1870 period, Herbert Foote Beecher Home (nephew Harriet Beecher Stowe; Adams Home 1888 by John Quincy Adams, Rothschild House 1877, Griffith Home on Morgan Hill, 1890, has marble fireplace and tin ceiling; Lucinda Hastings House, 1882.

Port Townsend, Washington

May 11, 1981

min temp. 45°F, BP 128/68 48. Spent the day with Max + Phillip

May 12, 1981

min temp 38°F, BP 130/60 46. Steve Kenage picked up Chris and they drove back to Seattle. We left at 3:30 P.M. at mileage 33440. Travelled to Discovery Bay to 112 highway thence W. Somewhere between here and Joyce took photo 810512-1 of Mt. Angeles. At Joyce took a second one from Joyce, Washington photo 810512-2. Continued N and camped at Agate Beach Co. Park along the Straits of Juan de Fuca. Birds observed this evening are: cormorant, rhinoceros auklet, pigeon guillemot, herring gull, robin, crow, Harlequin duck (feeding on incoming tidal flow among and on rocks); glaucous wing gulls feed and eat an entire mussel; some pairs of glaucous gulls breeding.

Agate Beach Co. Park, Straits of Juan de Fuca, Washington

May 13, 1981

min. temp 45°F, BP 130/60 42. Glaucous wing gulls (6) still mating on tidal rocks in a small bay, leads high & peculiar calls. Two photos of *Eutamias townsendii*. Photo 810513-1 and nearer no 810513-2. Also in area were ancient murrelet, black oystercatcher, Harlequin duck, pigeon guillemot, spotted sandpiper and cormorant,

Left camp and back to 112, Can say that this is one of the most delightful camps we have had. It is above the Straits and offers a full view. Continued W on 112, thence S at Puget River to 101, thence to Destruction Island where I made photo 810513-3 of a creek entering the Pacific Ocean just S of Destruction Rock. Continued S to Kalalock Camp Grounds. <sup>meilage 33702.5</sup> Recorded several shots at camp and in general area.

810513-4 Annette at trailer which is a brink of high shorebank with beach about 20 feet below.

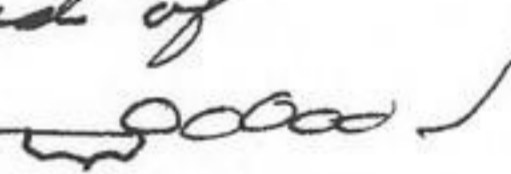
810513-5 Afternoon view ocean from beach at first cliff to N.

810513-6 Twisted root system & logs on beach. The government should receive all shore wood removed from the beaches of the world before permit granted for live tree harvest.

Kalalock Camp, Olympic National Park, Washington.  
<sup>meilage 33702.5</sup> May 14, 1981 <sup>min temp 50°F</sup>

This camp on the Pacific Ocean is outstanding.

Birds in area wandering tattler, raven, crow, glaucous wing gull, barn swallow, surf scoter, rhinoceros puffin, dead skate (3' long), and cloudy this A.M. Rained all last night.

Photo 810514-1 of a group of glaucous winged gulls resting along side of water channel from land. There is a 3 foot band of gull tracks all along the outermost logs in  tracks. Tracks elsewhere but here concentrated.

The gulls seldom feed at the edge of the water in the wet saturated sands.

As the tide pulls away from the beach it leaves parallel rows of debris, yesterday there were 7 major rows and 5 minor rows mixed in. Today there are 4 major + 2 minor rows. There is also a luminescent purple material that come from landward and spread out onto the upper part of beach.

Left camp for Camby State Park. Meilage at Kalalock River just S of Kalalock River meilage 33704.0 at 9:00 A.M.  
 708.8 Queets River. 709.6 Co. line. 713.1 Jefferson Co.  
 The road crosses Jefferson Co 3 times. No birds so far  
 721.4 Raft River <sup>(N.G.)</sup> 736.0 At one of the Quinault Company sites, made photo of large cedar and Douglas fir trees.  
 E end Quinault Lake, N. side

This area has several large trees that have been spared by lumbering companies. Townsend chipmunk in some area. 781.6 Quinault River 769.3 Crow and first bird observed since leaving Kalalock Camp. exclusive of 2 red-tail hawks at lake here. 779.4 Little Holguim River, 4 gulls and 2 crows at Aberdeen. now on <sup>S</sup> side Gray Harbor to ocean, robin 800.1 4 crows. 800.8 crow. 801.7 Elk River, actually a bay from Gray Harbor, 2 gulls and a large tern about the size of a Caspian tern. 866.9 Duck area at Westport at 12:30 P.M. Usual number of gulls in harbor area. 818.4 Pacific Co. 2 crows, redtail. at North Cove. Drove to end of peninsula and then returned. Killdeer, crow, 840.0 Plain North River at 2:30 P.M. and just beyond is Smith Creek, roven, 2 redtails, robin, flock 60 gulls circling and taking advantage of wind, killdeer, 2 crows, Willata River at 815.7, 2 barn swallows. 866.2 Nisawakum River, red-tail 3 miles beyond. 881.2 now on 101 to Longbeach, 2 crows. Creeks graded to bays and landward are meandering. Springs at high tide meander out onto mud in bay but not as deeply incised as other larger streams, 2 Canada geese, crow, 2 crows, great blue heron. 891.4 Bear River. 898.6 Longbeach at 4:00 Continued to Conkey State Park at mileage 33909.3 at 4:30<sup>45</sup> which is at the last camp site at N end of park, after making camp we photographed an example of pillow lava on cliffs just N of camp. no 810514-2, then drove to breakwater on N side of mouth of Columbia River where we photographed several waves and water action on N side of breakwater. The wave action becomes very dramatic at western end of breakwater. These photos are 810514-3 to 810514-10 with back lighting.

Conkey State Park, mouth Columbia River, Washington  
 May 15, 1981

min temp 44° F. Birds and mammals in area. Fox sparrow, white Cr. sparrow, N.W. crow, Townsend chipmunk among drift logs. Drove to breakwater at mouth of Columbia River and took several photos of water action on N side of the jetty with morning light. Occasional shower. Took 15 photos of water action 810515-1 to 810515-25.

at one moment in the series it rained as a slight shower for a moment and this rain & salt water spray from the water was wiped off the lens with my dry shirt sleeve. The cleaning of the lens looked good but moments later I noticed that the lens was smeared with an opaque film and some photos show the effects of the film surface. One should always carry special wiping material when lens get wet, especially with salt water.

Birds observed along jetty are: black turnstone 3 pairs, wandering tattler, one bird; Forster tern, several dozens; northern phalarope, 6 groups 4-8 birds feeding on smooth surface of water before breaking into crest, pelagic cormorant, common loon and 18 gulls, the latter resting on most westerly extension of the jetty.

Left breakwater and made photo 810515-26 of bay at the eastern end of breakwater between the breakwater and the cliffs beyond. This bay has been invaded with logs and debris that was relatively free of logs a few years ago. See photo 620813-11 taken of this same bay on Aug 8, 1962. The breakwater is an excellent place to photograph wave action especially at outer end of jetty. It would be dangerous to venture out to end during high wave action as the log might wash away as it has in places on the south side of the mouth of the Columbia River. Also there are kinds of birds that are not commonly seen near shore. At 11:16 A.M. left mouth Columbia River <sup>at 33924.7</sup> and visited lighthouse on top of cliffs. Informants at Camby State Park say that the leaflike organism (like scales of fish) are Japanese sail fish. These scalelike organisms cover the beaches at certain tide levels and make walking slippery. Three weeks ago there was an influx of these organisms and also the last two days of today. Continued E.

Redtail hawk near the Chinook River. Crossed bridge and at Astoria at 947.0 <sup>810515-27.4</sup> with <sup>810515-28</sup> with <sup>968.9</sup> measured a Sitka spruce which is supposed to be the largest in world and saved by lumber interests. Circumference 52'-6", 216' high. Crown spread 93'. This tree is 700 years old and represents 65,000 board feet of lumber. Also a Douglas fir which blew down during a dry storm in 1962 measured 48' 8" circumference, 200' 6" high and is 900 years old.

477.1 Saddle mountain State Park on Necanicum River  
 990.7 Redtail hawk. 991.2 Quartz Creek, <sup>on 26 highway</sup> 34 005.7  
 crow and at 008.2 crow 013.3 Turkey vulture, 019.1  
 first Brewer blackbird, Brewer blackbird. 027.0 wood.  
 duck. 071.3 redtail. 072.4 mileage at exit 22 to Corbit  
 Goldfinch at Multnomah Falls where we had a meal, thence  
 to Ainsworth State Park. 34085.4

Ainsworth State Park, Columbia River Gorge, highway  
84, Oregon.

May 16, 1981

min temp. 46°F 140/74 44 Left at 9:00 A.M. at  
 mileage 34085.4. Continued up river. At east end of  
 Gorge rocks dip to E. Recorder malfunctioned between  
 Ainsworth and here. On recollection observed six crows  
 chasing a raven, one of the crows left top of tree and flew  
 almost straight up to meet the raven. Continued to  
 the Dalles and left here at 3:00 P.M. Brewer blackbird  
 just beyond the Dalles Dam. Redwing blackbird. 148.6  
 sand dunes on S side road (Interstate 84) and still active  
 since I photographed them in about 1947. Redwing  
 blackbird here, Brewer blackbird, Brewer blackbird,  
 raven flying around cliffs to right, gull. 153.4 Brewer  
 blackbird. 153.5 exit 92 to Celilo Falls. On north  
 side of Columbia River are several patches of purple flowers.  
 The slopes show green of spring except red bare areas.  
 154.6 turkey vulture, gull (Herring), 156.3 Sherman Co. line  
 and Deschutes River. 163.5 Raven, crow 166.0 John  
 Day dam exit 109, raven, Brewer blackbird, 168.4  
 opposite John Day Dam, meadowlark. 191.8 horned lark  
 195.4 meadowlark, mourning dove. 198.2 meadowlark.  
 206.3 gull, 5 gulls, barn swallow, meadowlark, meadowlark,  
 208.4 meadowlark. 211.6 horned lark. 216.5 gull, 3 swallows.  
 217.4 Cowbird, gull. Exit 164 to Boardman at the overpass.  
 out. 219.1 20.1 2 sage grouse, Brewer blackbird, 2  
 ducks, 1 redwing, 2 Brewer's blackbirds, sage hen Exit 168 at  
 underpass, to 730 22.8 yellow-headed blackbird. 231.3  
 meadowlark, 232.0 Umatilla Co. 235.1 new on 130?  
 180? (730-395), magpie, sparrow hawk, redwing, redwing,  
 redwing, 2 barn swallows. 237.4 sparrow hawk,  
 meadowlark, meadowlark, 246.0 first massive Russian t.

growth. Artemisia to 12' high, yellow-headed blackbird  
 252.4 magpie. 255.8 a juniper canyon, red on hillside  
 is a plant, probably Cheatgrass. Domestic rock pigeons are  
 feral and are using cliffs for nesting sites all along the  
 Columbia River, sparrow hawk, mourning dove, 257.8 magpie,  
 mourning dove. 258.1 magpie, eastern kingbird  
 260.0 Entering Washington. at mile past 2 (?) beginning  
 of gates to the Columbia River, gull, gull, 2 redwings, 1  
 redwing, Brewer blackbird, barn swallow, 263.1 sparrow  
 hawk. 264.4 18 Canada geese, magpie. 265.7 Highway 12 at  
 Wellula at 5:55 P.M., meadowlark. no evidence of ash from  
 mt. St. Helens, barn swallow, 272.7 2 chukar partridge,  
 meadowlark, mourning dove, mourning dove, meadowlark,  
 meadowlark, meadowlark, 276.7 3 redwing, Brewer  
 blackbird, 2 redwings, 277.9 Touchet. Brewer blackbirds  
 3 Brewer's 1 redwing, 2 mourning doves. 280.4 2 Brewer's  
 blackbirds, redwing, redwing. 286.2 redwing, redwing,  
 2 cowbirds, Brewer blackbird, redwing, Brewer blackbird  
 blackbird, Brewer blackbird, Brewer blackbird, meadowlark,  
 3 Brewer blackbirds, 2 Kildeer at 286.7, 2 Brewer blackbirds,  
 3 Brewer's blackbirds, 2 Brewer's blackbirds, 2 Brewer's black-  
 birds. 288.4 2 Brewer blackbirds 290.4 sparrow hawk.  
 290.7 pheasant and end of census at Wallowalla at 298.0  
 will check until late twilight, 2 meadowlarks, 2 robins,  
 2 Brewer's blackbirds, Brewer blackbird-picked up food  
 from center of road, magpie at 305.7. 305.8 magpie, Calif.  
 quail. 306.5 sparrow hawk. 306.8 sparrow hawk, 307.6  
 dipie. 309.0 sparrow hawk, Brewer blackbird, cowbird  
 crow, robin. 311.7 redtail, Brewer blackbird, 2 Brewer's  
 blackbirds, Brewer blackbird, Brewer, Brewer blackbird, 2  
 Brewer's blackbird, Brewer blackbirds, 3 swallows. 316.7  
 Waitsburg at 8:00 P.M. 319.1 Columbia Co on highway 12  
 (all the way). 4 Brewer's blackbirds, magpie. 321.5 Lewis and  
 Clark State Park at 8:10 P.M. 34 322.0

Lewis and Clark State Park, Touchet River, Columbia Co., Washington  
 May 17, 1981

min temp 52°F. BP 152/80 40. Birds in area Robin,  
 house finch, starling, magpie, yellow warbler, moles  
 approx every 10 feet in camp trails, some trails (new  
 thru brush & forest are completely patterned with mole

ridges & diggings. Area of cottonwood, locusthorns (in blossom), and ponderosa pine and thick understory. 2 Brewers blackbirds. Left at 10:00 A.M. 2 Brewers blackbirds. 56°F at Dayton on highway 12; Brewers blackbird, 2 Brewers blackbirds. Occasional gopher digging but squirrel & badger diggings rare. 336.9 redtail standing on edge of nest in cottonwood tree. This is at the bottom of a long grade going N, 2 Brewer blackbird, swallow, 2 meadowlark, meadowlark. 340.7 Tucannon River turnoff, mourning dove, magpie, mourning dove, 2 Brewer blackbirds. 345.2 Brewer blackbird <sup>48</sup> 350.7 roven, squirrel road kill. (rock squirrel?), 2 Brewers blackbirds 348.6 Garfield Co. line, robin 350.6 <sup>passed</sup> left highway 127. 351.2 3 mourning doves, western kingbird, 3 cowbirds. 354.1 redtail, Brewer blackbird, swallow, robin, robin, Brewer blackbird, mourning dove, western kingbird, 8 cliff swallows in canyon down from divide 379.0 3 Brewer blackbirds, Brewer blackbird, Brewer blackbird 381.1 Asotin Co 384.1 Alpawa Creek. Snake River just beyond, several thousand swallows on shore of reservoir. Basalt layers overturned and lapped by horizontal layers, Brewers blackbird. <sup>3</sup> 393.7 Snake River in Idaho, 3 meadowlarks, 4 Brewers blackbirds, Brewer blackbird. 404.9 divergent of highways 95 & 12, Brewers blackbird, Brewers blackbird, Brewers blackbird 437.1 Orofino airport turnoff east of town. 444.4 2 crows 445.9 split to highway 11. 446.7 2 crows 450.8 Crow 459.7 junction 64-12 at Kamiah. 464.3 Idaho Falls which is in the middle of Clearwater River, mourning dove, Brewers blackbird, 2 mourning doves, 2 Brewer blackbirds, 3 mourning doves, Brewer blackbird, Brewers blackbird, mourning dove, cowbird. 467.2 junction 12-13, continuing on 12, 3 cowbirds, Brewer blackbird, Brewers blackbird, magpie, magpie. 2 Brewer blackbirds. 470.1 Magie Cr. 470.8 Brewer blackbird, mourning dove. 474.7 Suttle Creek. <sup>(Recorder malfunctioned to Wendover creek)</sup> <sup>1</sup> continued up Lochsa River to Wendover Camp site. Enroute three forests and wildlife depauperate. Camped on N side road & canyon at mouth of canyon that enters main canyon from the N. main camp closed and barriers across entrances. This camp is about 3/10 mi. W of a lake on N side of road.



Wendover Creek, Idaho Co, Clearwater Nat. Forest, Idaho

May 18, 1981

This camp is  $3\frac{1}{10}$  mi. W of a small <sup>mountain</sup> secluded lake but visible from the main road (12). Pileolated woodpecker at camp. Elk <sup>foot</sup> prints common in area especially at mouth of Wendover creek where the creek leaves hillsides (not where it enters the main river). One measured 110 and 114 mm (R & F).

at the small lake E of camp observed: 1 varied thrush, 4 common mergansers, 2 woodducks, ♂♀ Cinnamon teal. Approx 100' N of camp at the point where Wendover Creek issues from the mountain observed elk trails, deeply incised into the forest & hillside soils. Apparently they come down ridge on W side, cross at mouth of canyon and then gain elevation again on the mt. on the E side of Wendover Creek. Most of the elk movement is from W to E although some tracks go W,

especially those using the main canyon floor for passage. These tracks are between camp & mouth of Wendover Creek canyon. Last night 3 myotis flew among trees.

Birds at camp are pine siskin,

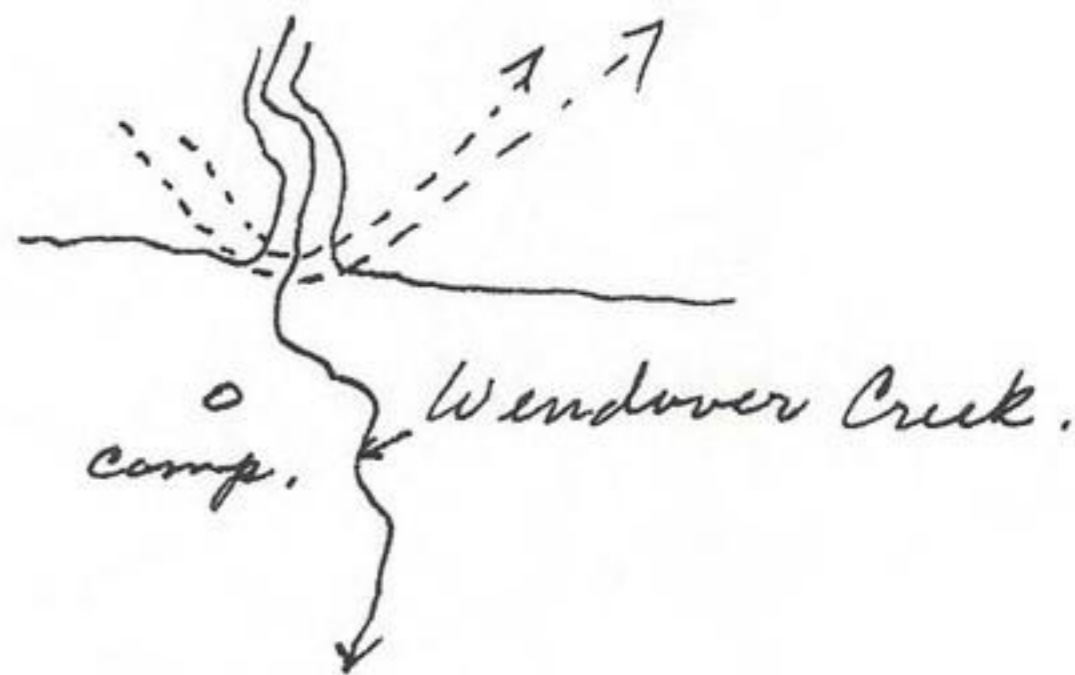
pileolated woodpecker, also 2 snowshoe rabbits. Photo 810518-1 of Wendover Creek below main highway. The creek here cascades to Locksa River in the main Canyon.

Left camp mileage 34550.3 at <sup>11:00</sup> ~~10:30~~ A.M. 552.1 Steller jay, few violet-green swallows, 6 pine siskin. at Powell Camp mil.

555.3 after returning to main road. Brewer blackbird which seem a little high in elevation. Checkered along side of road.

560.6 pine siskin 563.0 road leaves main river. This is the beginning of the climb to divide leaving the creek far below. 563.7

2 pine siskin. 564.4 Citellus variegatus. 566.0 robin. 567.1 first snow on ground. 567.4 at 4900 but map <sup>reads</sup> 5052 ft so altimeter is 152' low, 5285 ft on sign post. Lewis and Clark passed over mt here. Sept 13, 1805, west bound to the Pacific after a long detour to the south. From the headwaters of the Missouri they had crossed the mountains to the Salmon River. Finding that river impassable they <sup>came</sup> along <sup>to</sup> an Indian trail across the mountain. They traded <sup>for</sup> pack horses, hired an Indian guide. Tired and ill fed the men were to have a hard



time & struggle in the early snow, along the steep ridges, which the trail followed for along its <sup>most of</sup> 125 miles course west to the Clearwater River. 24 pine siskin. Time 11:50 A.M. Montana state line also at Lolo Pass and clock set 1-hour earlier. Stream near divide approx 6' wide. 575.8 ate at Lolo Hot Springs. The river here is 3 times the size it was at divide. 584.5 robin, cottonwoods just starting to come out. 589.6 sparrow hawk, now in broad fields of lower valley 3600ft. Mourning dove. 592.0 sparrow hawk. 592.2 sparrow hawk. 597.1 Citellus (have longer tails than other ground squirrels (not rock squirrel)), redwing. 598.2 sparrow hawk. 599.4 highway 92, continued N, at 1:36 P.M. mt. Time. 601.5 2 Brewers blackbirds 605.5 magpie. 606.5 entering Missoula at 1:45. at University noted 2 evening grosbeaks. Counted 41 recessional lines of Pleistocene lake on hillside S of Missoula. There are minor ones above the first one (highest), the lower levels are not as evident as the upper ones, and these are grown to grass. The minor ones between grass levels are dirt levels. 615.6 at Clark Fork River E Missoula. 623.0 Brewer blackbird, Brewer blackbird, storm approaching. Brewer blackbird, Brewer blackbird, Brewer blackbird. Exit <sup>(by express)</sup> at 120 to Clinton at 631.3 mileage. at mileage post 121. 632.7 3 Brewers blackbirds 636.9 crow, Brewer blackbird. 640.8 crow. 641.7 Granite Co., sparrow hawk, 648.8 crow. 650.5 crow, mallard flying along at 45 M.P.H. 655.1 redtail, Brewer blackbird, crow. 656.8 golden eagle divide and alighted on ground, and then 2 raven harassed it for at least 1/10 of mile after it left. 2 mallards flew by same area. 657.4 crow. 657.8 sparrow hawk. 658.2 Clark Fork River and crow, raven. 658.6 2 crows, 659.1 on W side canyon are excellent cliffs for eagle nesting. 659.6 crow. 660.9 30 Canada geese. 661.9 2 redwings. 3 redwings. 664.6 3 Brewers chasing raven. 665.1 sparrow hawk, crow, 2 crow 665.7 crow, sparrow hawk. 2 Brewers blackbirds. 666.6 crow. 667.9 sparrow hawk. sparrow hawk 669.1 3 Brewers blackbirds. 669.9 Powell Co., Brewer blackbird. 670.9 3 Brewer blackbirds. Brewer blackbird. 671.7 Brewer blackbird, Brewer blackbird. 672.4 2 mourning doves, 4 Brewers blackbirds, 2 redwings. 673.0 redwing, redwing, cowbird.

redwing. Exit 144 to Cold Creek (overpass) at 675.4 mileage,  
 Brewer's blackbird. Clark Fork is curb and guttered most of the  
 way. 678.4 2 Brewer's blackbirds, now down into juniper  
 prairie zone 684.8 Brewer blackbird, Brewer blackbird  
 685.8 5 Brewer blackbirds, mallard, roven, 686.9 sparrow  
 hawk. 688.3 3 Brewer's blackbirds. 690.0 2 redwings,  
 2 Brewer's blackbirds. Creeks near morumum and valley  
 used for growing hay & grasses, 691.2 great blue heron,  
 crow, 2 Brewer's blackbirds, crow, Brewer blackbird.  
 692.1 2 Brewer blackbirds 692.7 marsh hawk, 693.3  
 first exit to Deer Lodge, barn swallow, 694.1 crow, great  
 blue heron, valley benchlands beyond, mallard, 698.6 2  
 mallards. 700.1 striped skunk road kill. and the first  
 since Seattle, 701.7 redwing, Brewer's blackbird. 703.7  
 Deer Lodge Co. 706.0 sparrow hawk, 2 Brewer blackbirds,  
 2 Brewer's blackbirds. 707.8 sparrow hawk, Brewer black-  
 bird 709.9 sparrow hawk. Camped approx  $\frac{1}{2}$  mi <sup>warm</sup> SW Springs at  
 mileage 711.0 on the Anaconda road 273, by a water  
 channel. Birds in area: meadowlark, E Kingbird, 2.  
 Canada geese, 2 mallards, 4 redwings, 1 Brewer blackbird,  
 1 long-eared owl, 1 great blue heron, 2 red-headed ducks

Approx  $\frac{1}{2}$  mi. SW Warm Springs, Deer Lodge Co., Montana  
 May 1981

min. temp 45°F, BP 125/65 48 pulse. Robin, pine siskin  
 Left <sup>9:15</sup> 8:00 A.M. at 711.0 mileage continued to Anaconda and  
 then E on 10A. 714.0 sparrow hawk 716.1 magpie. 716.4  
 highway 10A; magpie. 720.7 Crow 722.0 <sup>90</sup> 180 2  
 mourning doves. 723.4 crow. 723.9 Silver Bow Co., 3  
 mourning doves. 727.7 young juniper trees now in valley  
 and beyond larger trees valleywide as if reacting to some  
 climatic change, 2 mourning doves. 729.0 sparrow hawk.  
 729.8 magpie, Brewer blackbird (2). 732.9 <sup>30</sup> Brewer blackbird  
 733.1 Exit 126, roven, yellow-headed blackbird just  
 outside city limits of Butte. 744.7 marmot. and just beginning  
 of Deer Lodge National Forest. 746.6 Jefferson Co and  
 Continental divide, no snow on any exposure. 755.4 mourning  
 dove. 760.6 2 Brewer blackbirds, 2 barn swallows.  
 (have not recorded all swallows) 751.7 redtail hawk.  
 751.9 exit 249 at Whitehall. 758.2 at the overpass  
 763.1 approx. 30 Canada geese flying south. 764.5 Brewer

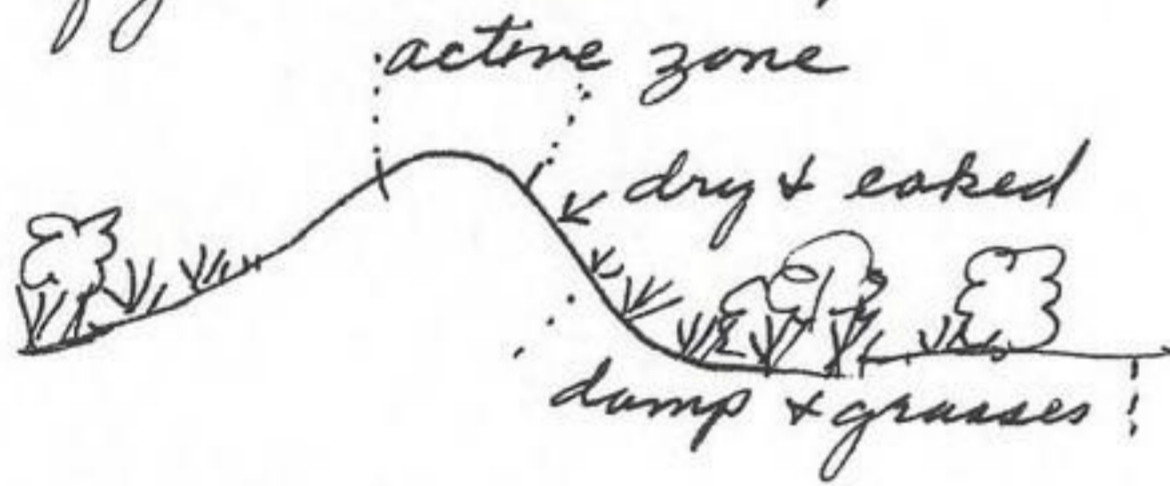
blackbird. Valley with broad stand of cottonwoods  
 770.7 redwing, 2 redwings, redwing, mourning dove. 771.8  
 2 mourning doves 775.5 meadowlark. Denuded slopes  
 and parallel to forested areas, magpie 776.7 magpie,  
 meadowlark. 776.6 turnoff to Lewis & Clark covers  
 magpie. 776.9 meadowlark. 777.0 gates to National L.C  
 covers, magpie, meadowlark. 777.1 magpie, 2 magpies,  
 778.1 pine siskin. 779.1 pine siskin. 779.8 top at  
 visitor center and parking area. Enroute on trail to covers  
 4 ravens, 1 raven, 1 pine siskin. Visited covers and attempt  
 has been made to minimize trails and access and a very  
 unusual cove. Question still remains as whether stain on  
 formations are man made or natural. Returned to car and  
 left 779.8 at 3:00 P.M. 780.0 2 pine siskin, mt.  
 mahogany dominant shrub. 780.7 pine siskin 781.4 pine  
 siskin 82.9 magpie. 82.6 gates. From parking lot  
 while hitching trailer observed 3 mule deer on S side of  
 canyon to S. about 1/2 way up slope (great deer country).  
 Summation of birds up & back to Covern from gates of 2.8 miles  

	up	down	Left at 3:30 from lower facility on highway 10. Crow
magpie	4	1	
meadowlark	1	0	784.3 mourning dove, meadowlark
pine siskin	2	4	787.4 2 Brewer blackbirds, 2 redwing and a meadowlark.

788.7 Gallatin Co. and Jefferson River, magpie & 4 Brewer  
 blackbirds. Cottonwoods just starting to grow leaves, that is  
 in leaf but not far into leaf growth, meadowlark. 789.7  
 meadowlark. On highway 287 to S cottonwoods in all  
 stages of growth from bare limbs to fully grown leaves.  
 790.9 Madison Co. 791.2 5 Brewer blackbirds, meadowlark.  
 794.3 3 cowbirds, Brewer blackbird. 795.1 Brewer  
 blackbird, redwing, yellow-headed blackbird. 796.8 magpie  
 2 Brewer blackbirds, sparrow hawk and meadowlark. 797.7  
 sparrow hawk. 798.6 redwing. 799.7 marsh hawk, 2  
 Brewer blackbirds, Brewer blackbird. For photographic  
 purposes the front of a storm is better than the rear of a  
 passing storm (front) or cloud. There have been a few  
 barn swallows, generally in pairs at culverts 803.0  
 redtail. 804.2 raven, Brewer blackbird 805.1 3  
 meadowlarks, sparrow hawk. 805.7 7 at old grain  
 elevator. 806.0 raven, Brewer blackbird. most of the

swallows are cliff and barn swallows, redwing. Greater  
 percentage of swallows without leaves. 810.3 magpie.  
 811.6 madison river <sup>Valley</sup> and <sup>Brewer</sup> 12 blackbirds, have been following  
 highway 289. 812.1 marmot road kill. 818.6 3 Brewer  
 blackbirds. 813.8 madison river Crossing at mile-post 8  
 Several mountains are bare of trees on top. 816.7 meadowlark  
 Brewer blackbird, robin 817.0 magpie. 817.2 Gallatin  
 Co. robin, meadowlark, Brewer blackbird. 818.6 2  
 mourning doves, Brewer blackbird & mallard. 820.9  
 Brewer blackbird. 822.6 Brewer blackbird. 823.7 2  
 mourning doves, meadowlark, meadowlark. 826.1  
 2 Brewer blackbirds, Brewer blackbird. 828.6 3 Brewer  
 blackbirds. 829.9 Brewer blackbird. 831.6 5 Brewer  
 blackbirds, 2 Brewer blackbirds. 832.8 Brewer blackbird,  
 sparrow hawk, 3 Brewer blackbirds, redwing. 833.3  
 Gallatin River, 5 Brewer blackbirds, 3 Brewer blackbirds  
 834.5 junction 191 now S. at 5:00 P.M., Brewer blackbird  
 836.6 redwing. 837.1 sparrow hawk, robin. 837.5 3 Brewer  
 blackbirds. 838.6 Brewer blackbird. 841.9 6 Brewer  
 blackbirds, 1 meadowlark. 845.6 Gallatin Bridge over  
 river, now on west side at mouth of canyon, river muddy.  
 848.5 raven. 865. <sup>3</sup>/<sub>4</sub> Gallatin National Forest boundary  
 854.5 Gallatin River bridge. 861.5 sparrow hawk.  
 864.1 second tree eroded into river 866.7 raven 867.7  
 Big Sky skiing area, low mountain with snow and looks like  
 a volcano, ski slope still covered with snow. 868.4  
 21 Brewer Blackbirds. 869.2 2 robins, meadowlark 869.6  
 sparrow hawk and meadowlark. 870.4 4 Brewer blackbirds,  
 15 Brewer blackbirds, Brewer blackbird. 871.9 sparrow hawk.  
 873.0 raven. 873.2 2 marmots along side of road, conifer  
 trees bend out over river because of erosion along side of  
 banks. 876.2 raven 877.9 sparrow hawk + skunk odor.  
 881.4 Taylors Fork. 882.5 crossing Gallatin River again,  
 now on east side. Camped at mileage 883.4 at trail no. 39  
 on E side valley at mouth of canyon and beginning of trail.  
 arrived at 6:45 P.M. made some observations here and in  
 canyon to E. Elk tracks common, one measured 130 mm.  
 Dead sharp-shin hawk at camp (someone had shot it) measured  
 13 mm total length. Several elk rubbing trees on pine trees  
 1 1/2 inches in diameter. Chickadee & 3 raven near camp.  
 The sign at camp says "M P 32. Trail 39 to Buffalo Horn Divide,  
 37 miles, to Yellowstone N P 33 miles"

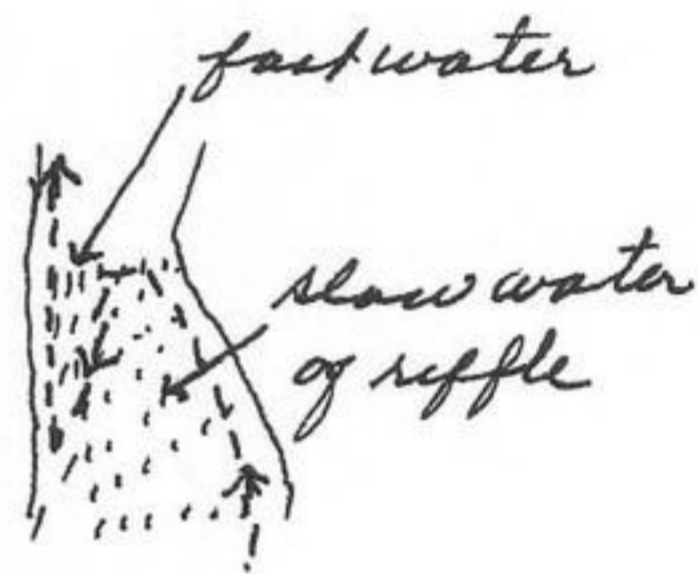
In canyon to E of camp elk concentrating in canyon bottom where grasses are most numerous and luxuriant. a spot is always within at least 2 feet of elk droppings, most ground surface saturated with droppings, mainly piles of fecal droppings. Trails (elk) 12" wide with grass in center. Beyond grass cover trails wider. Trail adjust to rocks on ground. Examined skeletons to young elk with last molar just erupted, first premolar with wear. Group 18 elk in one group just out from timber on upper slope on E side main canyon and 2/10 mile from canyon bottom (E. canyon). In area of concentration of elk are ant hills averaging 5' wide and 3' high. These ant hills seem out of place in this heavy ground cover of grass and damp meadow situation. The ant hills are well formed and complete, some however have been excavated by animals and trampled by elk. The ants are black and approx 1/4" long.



well formed and complete, some however have been excavated by animals and trampled by elk. The ants are black and approx 1/4" long.

In the main river valley of the Gallatin were 2 moose and one mule deer. The moose alternately fed and then laid down in river valley. 3 common merganser rested & fed within 30' of the moose. Beaver cross

river by swimming up river on the less rapid side of stream, then swim out into rapid part of riffle and after being carried 50-100' by current gradually gain other side of riffle just beyond fast current and then swim up current along bank where friction is greater & water thus slower



There is a fenced enclosure on E side of river just W of the mouth of the east canyon and campsite. This enclosure is higher than deer or elk can jump. Inside is 3 species of willow approx 3 x higher than the same species outside the enclosure which are kept in the shorter life form by grazing moose, elk & deer. The willow inside have noticeable more inflorescence than the ones outside. The ground beneath the willow is bare but mat grass beyond willow (all in enclosure). On up river side when river flooded enclosure it left a high-water mark of 18" of debris on wire mesh of enclosure. noticed at camp there were rarely elk tracks in the immediate area used

by campers.

Trail 39, Gallatin River, Gallatin Co., Wyoming.

May 20, 1981

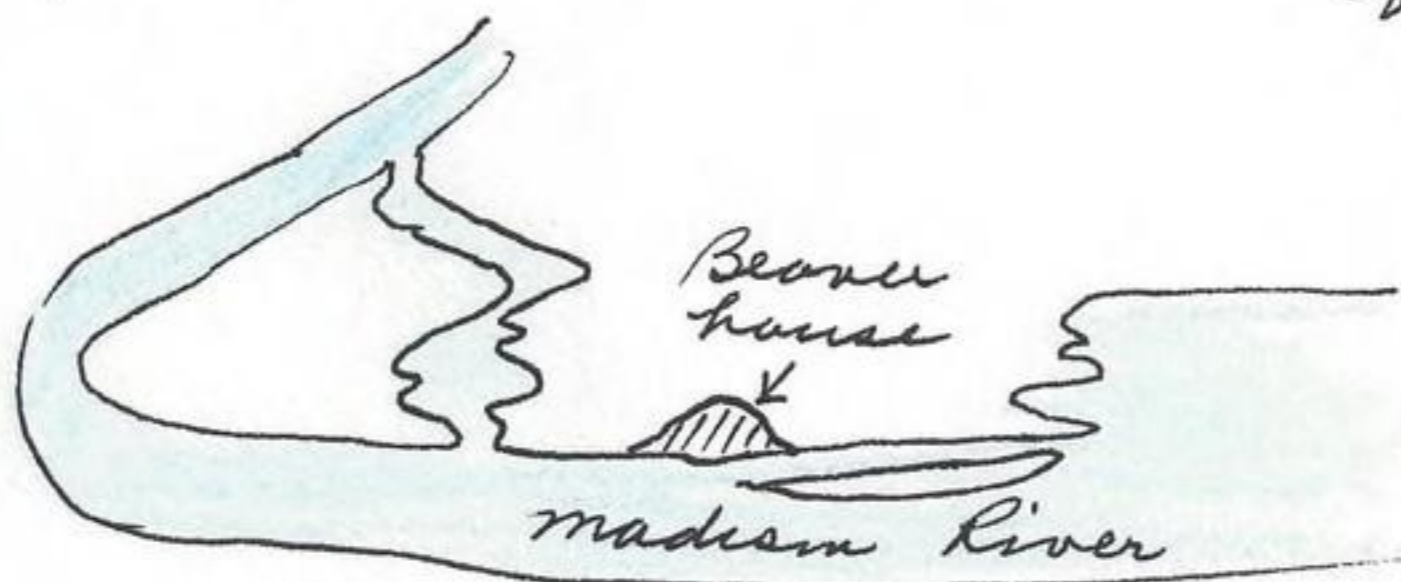
min temp 29°F. Foggy just above river valley. At enclosure noted 2 raven, robin, <sup>nest in enclosure</sup> Kingfisher, Wilson snipe on top of one of the poles of enclosure, Coyote track 75 mm front 50 mm rear.

at ant hills photos 810520-1 typical hill. Photo 810520-2 of several ant hills distributed among the shrubs and grasses. One of them had been dug into by *Citellus* and one more extensively by a badger. There were 20 badger diggings in area.

at enclosure photo 810520-3 of droppings of moose along outside of fence. Photo 810520-4 of S face of enclosure showing degree of grazing of willows on outside of enclosure. The life form of willows outside can be seen also W across river in an area where 2 moose fed & rested. Photo 810520-5 of enclosure showing even better the differential of grazing on inside and outside of enclosure. A mule deer fed at edge of timber on W side of valley. There is some grizzly bear activity in this area according to informants.

Left at mi 34898.8 and at 904.2 out of the segment of Yellowstone Natl Park on way to West Gate. aspens still without leaves (7400 ft). 904.9 Grayling Cr. at 906.2 ? junction at 287. The broad sweep of the landscape is like a floor of a caldera with rim bordering. Lodgepole pine in center (floor) of caldera. 911.0 Madison River, red-shafted flicker. 915.3 entrance West Gate of the Yellowstone Natl Park, 12:00 P.M., chipmunk. 921.0 9 Canada geese. 922.4 Crossing Madison River and now on E side, raven, robin, robin. 926.0 moose Canada goose sitting on nest which in turn was placed on a boulder in grassy part of river bed about 2 feet from water. The rock was about 2 1/2 times as high as body <sup>height</sup> of goose and 3 1/2 times as wide as width of the geese body. Water on three sides of this rock, and not over 4 feet from water. Vegetation around rock about 1 foot high. Back of body towards road. Photo 810520-6 of this Canada goose and nest. It appeared as if vegetation immediately in contact with base of rock and out as far as goose could reach was clipped by goose. This nest is approx 7300' elevation. Frogs calling in area, no willow along edge of river and may be controlled by moose.

Water to contact with grass along river and without bank or marked shoreline. 924.7 3 Canada geese. 927.2 7 elk in wet marshland and in same place in field (S side road) photographed on the last trip thru here, 2 redwings and muskrat on bank. 3 pines (young 8' high) Cleaved of bark from elk on a knoll in parking lot. 1/10 mile E in same meadow are 10 more elk <sup>♀♀</sup> in meadow. at 927.6 mileage a great blue heron and 2 Canada geese reacted to something in timber beyond. One of the elk crossed the river by wading and then went wild by running erratically. All elk reacted to a strong gust of wind in advance of a rain. 7 more Canadian geese in this area. 928.1 7 elk. at 928.3 photo 810520-7 <sup>(1:00 P.M.)</sup> of 30 elk on S side of Madison River (2 of them in far distance to left.) of the group of 24 there are 19 resting on ground, 5 standing. of the ones resting 7 are on their right sides and 12 on their left sides. The elk are facing all directions.



There is a beaver house on bank but structurally is more like the house placed in water; that is symmetrical. Most bank houses are irregular and cover opening into bank.

Madison junction at 929.0 929.3 actual junction. now N. Several springs 930.0. 4 Buffalo, 2 elk below and 2 Buffalo above springs. measurement of one buffalo imprint 130 mm, 2 Brewer blackbirds. Considerable evidence of elk rubbing of small trees in all areas associated with grazing fields or along rivers, 930.8 7 elk, this area all lodge-pole pine. 933.7 Gibbons Falls (approaching) 933.9 Gibbon Falls. Photo 810520-8 of this falls. 934.6 Photo 810520-9 of elk ♂. water in river slightly brownish 935.7 now on W side Gibbon River. 936.6 Gibbon River + now on E side. 937.4 Beryl (?) Springs. 937.7 Gibbons River now on E side of it, male elk along river, not much pasture or meadow lands along here. 938.5 at broad Gibbon meadows 101 elk generally distributed and 48 Canada geese and a great blue heron. Elk prefer W side of road. Snow on parts of road and in protected part of forest. 940.6 2 elk, 948.0 pond with snow-bank and forest reflection. & one



wished to see optimum early spring in this area it should be about May 10<sup>th</sup>. and my guess would be that there would be very few people in the park at that time. Some ponds among timber are frozen. There is considerable water among trees of forest, and snow at least a foot deep among trees and piled to 4-5 feet along side of road.

952.9 now down onto open meadows with willow patches, no elk. 953.7 Canyon Village at bifurcation of village. *Eutamias minimus* here. Photo 810520-10 of Yellowstone River at Inspiration Point, <sup>Oxyeye</sup> Photo 810520-11 of Lower Falls, no 810520-12 close-up at base of falls showing ice accumulation. at least 10 *Eutamias minimus* at lookout points on W side, some to 2 feet away. 963.0 left Upper Falls and left for Fishing Bridge at 4:50 P.M.

964.1 Otter Creek, ♂ ♀ bufflehead duck. 964.4 raven. 965.0 ♂ bufflehead, ♂ ♀ boldpate + coat. at 965.5. at 965.7 2 Canada geese 966.0 Elm (?) Creek. at this bay 6 pairs Cinnamon teal, 7 pairs of boldpate, and 8 Canada geese, 1 pair gadwal. Rivers seem high but creeks and their bays seem low. 967.1 at a vantage point. observed 4 trumpeter swans, 2 buffalo, 3 golden-eye ducks and one scarp. A ranger at this point said she saw 4 swan on river at West Entrance of park.

967.2 4 Canada geese flew down river. 967.7 small group of 5 buffalo. 968.1 4 photos 810520-12, 810520-13, 810520-14 and 810520-15 of buffalo along river. at this time of year they are confiding. mallard, gadwal and spotted sandpiper in area of buffalo. 968.1 buffalo. 968.8 Chalk (?) Creek, <sup>low</sup> (? marks mean the best interpretation of name from tape recorder). 5 Canada geese, 969.2 Elk Antler Creek, 20 common goldeneeye, ♂ ♀ greater scarp, spotted sandpiper, 2 mallards. At wildlife exhibit at 969.7. 2 pelicans, 3 common mergansers, 4 mallards, 4 buffalo moving single file and maintaining intervals of approx. 30'. and 2 in wet meadows below. Some trails thru meadows but not prominent. Raven passed by and in about 1 minute later a second one passed by in some flight pattern. 971.0 8 Canada geese, raven. 971.4 3 buffalo, 3 Brewer's blackbirds and 8 Canada geese. Grasses on W side of road lawn green whereas on E side of road the grass is dull & say little greenish yellow, and probably caused by temperature of the ground. 6 Canada geese,

Buffalo chips generally distributed over most of the country-side. 972.1 2 raven. 974.2 2 pelicans 974.6 3 mallards and pair of Barrow goldeneye ducks. 975.9 6 trumpeter swans at 6:15 P.M. 975.8 osprey. 976.8 Fishing Bridge over Yellowstone River at N end of lake. Water low in lake + river. Pelican 978.1 bridge over slough E<sub>2</sub> of fishing bridge. 4 pelicans, mallard, robin 979.4 2 elk, one with unusually large antlers. 50 Calif. sea gulls and about 30 ducks. 979.6 turned around and returned toward Fishing Bridge. 983.7 junction of main road at Fishing Bridge. 984.1 moose. 986.8 entering Bridge Bay Camp Grounds. Buffalo near camp. Arrived about 7:00 P.M. Observations near camp. at bay (marina) 2 moose, 2 buffalo, 1 w. grebe, 18 common goldeneye, 8 scaup, 1 loon (in main lake). Bordering lake was a raven nest in conifer tree, nest 40' high, 12' from top tree, 100' from lake shore. 2 birds near nest. One alighted on branch near nest and called several times then worked its way thru branches to nest and immediately settled down. Water of lake 4' lower than average level. The winter has been mild, low animal kills, bears hard hit. Buffalo in park different subspecies than original native. Bears all wild now. Expecting problems tonight because bears are just out of hibernation and are hungry. They visit the camp. Buffalo droppings all over camp area.

Bridge Bay Camp, Yellowstone National Park, Wyoming.  
 min last night 30°F. <sup>may 21, 1987</sup> Snow this A.M., rain last night.  
 Photo 810521-1 showing extent of snow on car and trailer.  
 Eutamias minimus and robin active during snow. At the parking lot N of marina counted <sup>40</sup> several specific areas (confines of parking area for one vehicle (between yellow lines and what would be length of stall for car)) and results are 10(5-20) angleworms (nightcrawlers averaging 120 mm long, most larger adults) per individual parking (car) area. I have no figures of area involved in the parking area but on the assumption that there is 120 sq feet per parking area and the entire area is 2 square acres, there is then approx 86944 sq feet of parking space or 7,240 angleworms in the 2 acres of hardtop parking space. If this is timed by all inhabital area of Yellowstone, the number would be astronomical.

I presume these worms were forced from ground by last night's rain.

<sup>Camp</sup> Area has new growth of lodgepole pine. Cooper hawk at camp. also tree swallow.

May 22, 1981

min temp 43°F. BP 140/68, p. 44. Left Bridge Bay at 9:20 A.M. at 34987.1. Runge reported all passes closed out of Yellowstone Park, <sup>+ Tetons</sup> except out from Jackson. Snow occurs every month of the year. Buffalo have stabilized, elk maintained constant by winter kills. Continued S along main road to Tetons. 2 mallards. Road closed from W Thumb to Old Faithful. 989.9 raven, robin 994.6 Eutamias. 996.1 Both Eutamias minimus & Spermophilus lateralis are at any point where there are people congregated and are tame. 12 common golden eye ducks 997.5 Photo 810522-1 of Yellowstone Lake and Conifers on off-shore bar. 35009.5<sup>1.9</sup> robin. 008.6 Continental divide 7988 ft. 2 robins and raven. 012.3 Lewis Lake still frozen but open a little on E side. 013.0 photo 810522-2 and 810522-3 of Lewis Lake showing ice and extent of snow in area. Ponds along side of road also frozen. 015.7 Lewis River. no evidence of mouse using field along river here. more snow here than any place in the park with road cuts of snow 3' high Lewis valley in snow except river. water slow and practically no grade and surface like a mirror. 018.2 junco. 024.2 Crawfish Creek. Dried here and 3 miles beyond toward edge of valley the snow line changes from traces to snow banks 4' high Elev. 6886' 027.5 Huckleberry <sup>Hut</sup> Springs turnoff. 029.7 robin 031.8 area of extensive beaver dams. River normal in height. 032.2 Entering Grand Teton Nat. Park. 036.6 first contact with lake. 3 trumpeter swans, 150 coast, 30 Canada geese 9 redhead ducks, 10 baldpates, 6 godwits, and 30 times <sup>in the immediate area</sup> the number of ducks in lake and shoreline beyond. This is at 12:30 P.M. and clouds down half way on Tetons. Rain all along. just beyond as we travel along E side of lake are 20 coast and 8 Canada geese. Lake low for this time of year. 036.7 5 Canada geese and 2 mallards, Calif gull. 037.5 60 coast. Aspen trees without leaves, robin 0404.2 red-shafted flicker 042.8 Carter Bay turnoff raven. Cottonwood trees without leaves and no evidence of color change from winter condition. Cottonwoods

These are the first cottonwoods along a wide braided stream at  
 045.1. 047.3 Christian Creek. 048.1 Moran junction.  
 049.9 On dam outlet of Jackson Lake, mallard in pond just  
 beyond, frogs calling. 058.4 photo 810522-4 of the Tetons  
~~Blaney~~ <sup>Blaney</sup> with clouds and mist hovering around the peaks. 2  
 ^ sandhill cranes? flew by. 059.4 6 ravens circling high  
 in sky. 060.1 2 raven circling above. 064.2 photo  
 810522-5 of coyote that following along in sagebrush to W  
 and finally crossed road in front of us and continued S,  
 except for trotting for 20' it walked leisurely. 064.4  
 Cottonwood Creek. Sparrow hawk. 065.9 Sparrow hawk.  
 Cottonwoods and aspen with new leaves and look like rich  
 collars of autumn. 067.0 Church turnoff, 2 antelope,  
 Chapel of the Transfiguration. 067.5 photo 810522-6 of  
 Tetons to W. 3rd Antelope near first 2. 068.4 gate of Nat Park,  
 red-shafted flicker. 068.7 visitor center. 068.8 Snake River  
 bridge at moose. at moose two photos 810522-7 and  
 810522-8 of tepee poles in position. diameter of tepee at floor  
 level 30'. 5 Brewers blackbirds were perched on top of poles.  
 070.0 junction 187, now N. toward Moran (2:15 P.M.).  
 070.3 redtail hawk circling. 074.4 raven, robin. 076.7  
 2 raven flying with wind and flight extremely irregular, mainly  
 down and up and just above the ground. 082.9 photo  
 810522-9 of Tetons to W. with cloudy skies. Rain in valley  
 at our position. 083.6 Spread Creek. 084.4 magpie.  
 085.0 redtail. 085.4 meadowlark, budger deggings and  
 many Citellus armatus. 086.7 magpie, some old beaver  
 lodges and ponds. 087.2 Buffalo River. 087.3  
 Moran junction now going east on highway 26, 2 mallards  
 089.4 leaving Grand Teton National Park at 2:55 P.M., raven  
 090.6 marsh hawk, raven, willows just beginning to leaf, some  
 in small leaves, raven, 2 mallard ducks, 093.0 3 raven,  
 2 crows 093.5 approx. 100 Calif gulls. 094.2 raven. Willows  
 in this area are more yellowish and below more greenish  
 094.7 4 Brewer blackbirds. 094.2 entering Teton Natl forest 101.1  
 beginning to snow. The lighter one travels (altitudinally)  
 the willow become reddish brown and finally just <sup>blackish</sup> brown  
 102.8 lake to left in ice (partly). 104.5 pond half covered  
 with ice with green-winged teal. 104.8 magpie. 8700 ft.  
 Valley in snow but no deer tracks, 105.8 robin, artemisia  
 dominant but willow on slopes above flat areas, robin,

robin 106.3 robin. Willow Embosment of red & yellow.  
 and separated by color, some in catkins, robin. 107.5  
 robin. Clouds low, rain and occasionally half rain  
 and half snow. Snow on trees above us. 111.4 now  
 snow covers all ground and <sup>new</sup> snow on trees and still snowing.  
 112.2 could be the pass at 3:30 P.M. 113.4 Fremont Co.  
 Flakes of snow still at 116.4 and are bigger and wetter  
 the lower in altitude we go. 118.11 now half rain,  
 half snow. 119.2 now out of ground covered snow,  
 some in protected areas. 119.4 Brooks Lake road.  
 Willow along water reddish-yellow, and beyond water  
 grayish. 128.4 2 Brewer blackbirds. 130.4 King-  
 fisher. 132.0 Wind River 136.8 raven. 139.0 three  
 Brewer blackbirds, 2 Brewer's blackbirds, Brewer black-  
 bird. 138.5 Debois city limits. 141.0 Debois post office.  
 148.6 Brewer blackbird. 149.6 Wind River, now on N side  
 water muddy. 153.6 6 Brewers bb. 156.3 magpie. This canyon  
 has red and multi-colored outcrops that would make  
 good photographs under proper lighting. 157.7 2 raven,  
 162.0 meadowlark. 164.4 Brewer blackbird. 166.6 meadowlark,  
 Brewer blackbird. 168.4 meadowlark. 171.5 sparrow  
 hawk and Brewer blackbird, 2 Brewer blackbirds. 174.6  
 3 Brewer blackbirds, 2 mourning doves. 176.0 turkey  
 vulture, sparrow hawk, meadowlark, cowbird. 178.0 mourning  
 dove. 180.6 Bowlake Cr. <sup>at</sup> 181.4 magpie. 182.8  
 sp. hawk. Exit 287 to Lander 183.9. 184.4/3 meadowlarks.  
 184.8 2 meadowlarks, 3 Brewer blackbirds. 186.8 meadow-  
 larks. 187.8 Wind River, now on N side, water red, also  
 magpie. 189.3 meadowlark, passing thru oil country in  
 Indian Territory. 191.3 meadowlark, Brewer blackbird,  
 Brewer blackbird. 191.6 sparrow hawk, 3 mourning doves.  
 192.4 sparrow hawk. 193.3 striped skunk road kill  
 large reservoir <sup>(Ocean Lake)</sup> (Martin Lake) to left, mourning dove. 194.1 marten, 2  
 mourning doves. The large peaks (to 5) in the Wind River  
 Range have several broad peaks with tongues of snow penetrat-  
 ing the snow line, no regular timber line. 196.5 magpie,  
 junction 133 now to N at mileage 200.1. Swallows  
 have occurred at approx. 1 per mile along way up to this point.  
 Along an irrigation ditch there are approx 300 per mile  
 for 3 miles, mourning dove, mourning dove, sparrow  
 hawk, Brewer blackbird, 2 redwings. 203.4 3 mourning doves,

meadowlark. 204.5 sparrow hawk, highway 134 to E.  
 at 204.8. 206.6 redtail hawk. 208.0 2 redwings,  
 sparrow hawk, Brewer blackbird, hawk on N side lake,  
 Brewer blackbird, mourning dove. 208.5 odd erosional  
 forms along side of road, meadowlark, meadowlark, 2  
 redwings, 2 Brewer blackbirds, 100 barn swallows,  
 redwing, Brewer blackbird, redwing, 2 redwings, mourn-  
 ing dove, redwing, 221.5 N. Forkhole? (not on map)  
 road. 212.9 sparrow hawk (2). 214.3 mourning dove,  
 mourning dove, meadowlark, 2 Brewer's blackbirds.  
 215.2 3 grackles (first ones seen), mourning dove, Brewer  
 blackbird, 216.4 meadowlark, redwing. 216.8 redwing.  
 216.9 some white sage and odd looking boulders. 217.3  
 grackle. The grackles are associated with farm houses,  
 meadowlark, 2 mourning doves, mourning dove, mourn-  
 ing dove, mourning dove, redwing, mourning dove, 2  
 mourning doves, meadowlark, strike, grackle, 219.6  
 approx 30 Calif. gulls, barn swallows associated with buildings,  
 3 grackles, 4 grackles, 2 redwings, sparrow hawk, red-  
 wing, sparrow hawk, mourning dove, mourning dove 2  
 mourning doves, 220.9 4 grackles. 221.6 2 mourning doves,  
 mourning dove, 3 mourning doves, redwing, redwing  
 mourning dove, mourning dove, mourning dove, sparrow  
 hawk, sparrow hawk. 223.5 mourning dove, 3  
 mourning doves, mourning dove, mourning dove.  
 223.4 3 mourning doves, mourning dove, redwing, 2  
 mourning doves, 2 redwings. There are some small  
 sparrows that are unidentified. mourning dove, mourning  
 dove, mourning dove, mourning dove, 2 mourning doves,  
 mourning dove. 225.6 meadowlark, sparrow hawk,  
 5 redwings. 226.1 3 mourning doves, 2 mourning doves,  
 2 redwings, redwing, 2 redwings, redwing, redwing,  
 2 grackles, redwing, redwing, meadowlark, 2 redwings,  
 grackle, meadowlark, redwing grackle, robin, meadowlark  
 sparrow hawk, 3 mourning doves, mourning dove, redwing.  
 grackle. 228.6 hawk on 26 E, meadowlark, mourning  
 dove, 2 mourning doves, meadowlark. 230.5 striped  
 skunk road kill. 231.1 meadowlark, 2 redwings, redwing,  
 232.9 bridge over Boyer River (Reservoir) on E end of Luce-  
 way. 6 east. 234.8 leaving Wind River Indian Reservat-  
 ion. There has been a good population of birds on this

reservation, 235.7 sparrow hawk, mourning dove.  
 236.7 junction 20 to 17. 6:30 P.M. Temp 53°F. 229.4  
 antelope. 234.9 sparrow hawk, mourning dove. 2~~3~~<sup>4</sup>2.4  
 5 antelope. 244.2 group 7 antelope, 4 antelope. 244.7  
 3 Brewer blackbirds. 245.5 meadowlark. 246.4 12 and  
 4 antelope. 246.8 2 antelope, 247.7 8 antelope 248.2  
 2 antelope, 248.4 6 antelope, these are in the area of  
 sanddunes. 249.0 2 antelope 249.8 3 antelope, one a  
 big buck. 250.1 antelope 252.9 antelope. 253.1  
 3 antelope, meadowlark. 253.2 13 antelope including  
 2 large horned ones. 254.5 antelope. 254.9 3 and 2  
 antelope. 255.7 4 antelope. 256.9 moneta. 258.3  
 2 antelope. 259.1 1 buck antelope. Large bucks are  
 loners 259.9 antelope. 260.3 antelope. 262.2  
 12 antelope, 2 sparrow hawks, meadowlark and 2 Brewer  
 blackbirds. 263.5 sparrow hawk, meadowlark and 2  
 Brewer blackbirds. 264.2 3 antelope, antelope. 265.2  
 ♂ antelope eating greasewood. 266.7 male antelope.  
 267.5 natrona Co., antelope, sparrow hawk. 269.0 4  
 antelope. 271.0 21 antelope. 271.3 3 antelope, slopes  
 all thru area are green. 274.0 3 antelope. 274.7  
 jack rabbit road kill. 275.2 ♂ antelope on highway  
 right-of-way, sparrow hawk directly above and hovering.  
 276.0 1 and 9 antelope. 276.2 Hiland, 11 antelope to  
 5. 277.3 large ♂ antelope and after following parallel  
 fence line turned 90° and continued along another barrier  
 fence line. *Citellus diggsums* on slope, N side. 279.5  
 18 antelope, 3 antelope. 281.0 7 antelope, 1 ♂ antelope. (these  
 figures mean that there were 2 groups at the indicated  
 mileage and were separated within a 1/10 of mile or generally  
 within the time period needed to make and observation and  
 record it) 281.8 8 antelope 284.0 rabbit road kill,  
 antelope, antelope. 284.6 Waltrman Service road, antelope.  
 5 antelope 285.1 7 antelope. 286.0 6 antelope 286.3  
 2 antelope. 286.6 6 antelope, 2 antelope. 287.6 3 antelope,  
 4 antelope. 288.8 35 antelope. 290.1 Nell's Half Acre.  
 292.8 2 antelope. 293.1 20 antelope. 293.4 7 antelope  
 294.1 2 Brewer Blackbirds. Brewer Blackbirds are  
 associated with desert conditions more than any other  
 kind of blackbirds. 294.7 1 antelope. 295.1 4 antelope.  
 295.3 7 antelope. 295.6 middle of town of Powder River.

296.8 antelope. 296.9 13 antelope. 297.3 24 antelope,  
 1 antelope. 297.8 4 antelope. 298.2 2 antelope,  
 18 antelope. 298.7 4 antelope. 299.4 4 antelope.  
 1 antelope. 300.7 7 antelope. 300.6 2 antelope. ?  
 301.3 4 antelope. 301.6 2 antelope. 303.5 salt mine  
 on left hand side 304.1 antelope, Brewer blackbird  
 304.3 antelope, Brewer blackbird. 3 antelope, 3 Brewer  
 blackbirds, 6 antelope. 304.5 Natrona City. 305.2 Brewer  
 blackbird. 305.1 buck antelope, 2 Brewer blackbirds.  
 308.2 5 antelope, 7 antelope, 2 antelope. 308.6 antelope  
 on right-of-way, 2 Brewer blackbirds, Brewer blackbird,  
 309.2 reservoir some distance to N, 3 antelope, 2 antelope.  
 309.4 reservoir. 310.0 3, 4 antelope, 1 Brewer blackbird.  
 310.5 20 antelope. 310.7 2 antelope. 312.3 2 antelope.  
 313.0 4 antelope. 314.3 4 antelope. 315.9 10 antelope,  
 Brewer blackbird. 317.2 5 antelope. 319.1 8:20 P.M.  
 nearing twilight. 319.5 2 antelope. 319.7 11 antelope  
 319.8 15 antelope. 320.9 Coyote road kill. Storm to  
 N a deep black-blue color (clouds). 331.7 junction of  
 33 mile road that leads to north. (8:25 P.M). 323.3  
 3 antelope 324.5 Entrance to Casper Airport (20-26 high-  
 way at 8:30 P.M) and end of census. 329.8 junction  
 257. Junction 220 at 332.0. Arrived Mary Bee in Casper

835 14 E, Casper, Wyoming.

min temp. 25°F

May 24, 1981

May 25, 1981

May 26, 1981

min. temp. last night 50°F

May 27, 1981

May 28, 1981

min temp. 50°F

May 29, 1981

min temp 53°F. made trip 8 mi. N Casper. Observed there,  
 13 lined ground squirrels, rock wren, lark bunting,  
 antelope tracks. There is many concretions in the sandy  
 formations. many Neotoma in cliffs. Spring flowers out.  
 Photos 810529-1 Mary + friend on way to slumby rocks. Frank + in tow  
 810529-2 Mary near top. 810529-3 Mary crossing fissure. 810529-4  
 ibid. 810529-5 Mary at the brink of top. 810529-6 Mary and friend  
 from Casper. 810529-7 Mary pulling up over top. 810529-8 Mary  
 in silhouette 810529-9 Mary above overhang 810529-10 Mary slumby  
 friend. 810529-11 Mary + friend. 810529-12 Mary and friend on top.



835 14 E Casper, Natrona Co., Wyoming

May 30, 1981

2 photos of *Spyrea* in Mary's garden. 810530-1, 810530-2  
made trip 5 to base of mt. Observed 30 antelope, one group  
of 9 mule deer, one buck in velvet.

June 1, 1981

min temp 50°F

June 2, 1981

min. temp. 46°F

June 3, 1981

min. temp. 47°F

June 4, 1981

Tornado last night, min. temp. 50°F

June 5, 1981

min. temp. 50°F

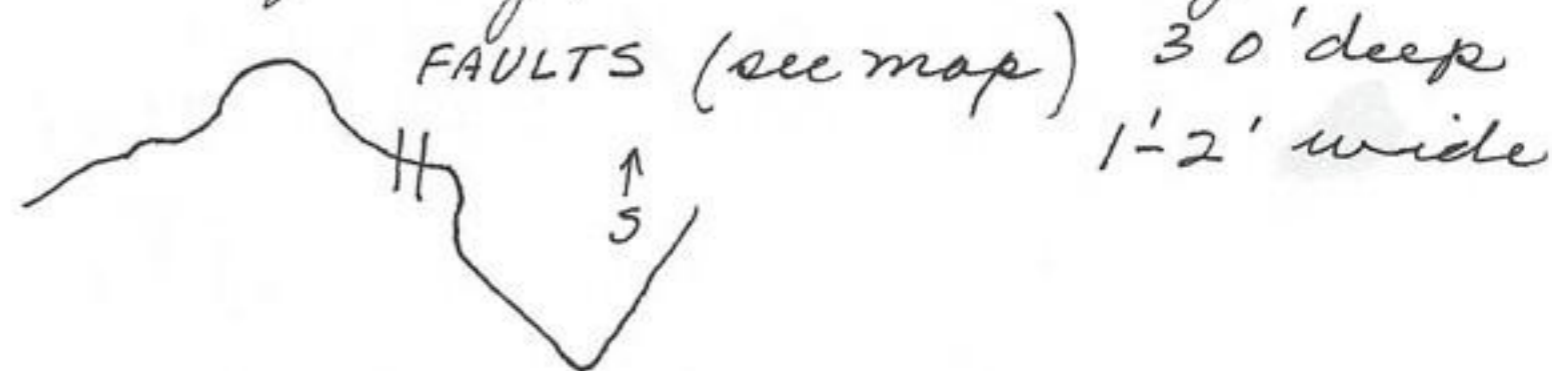
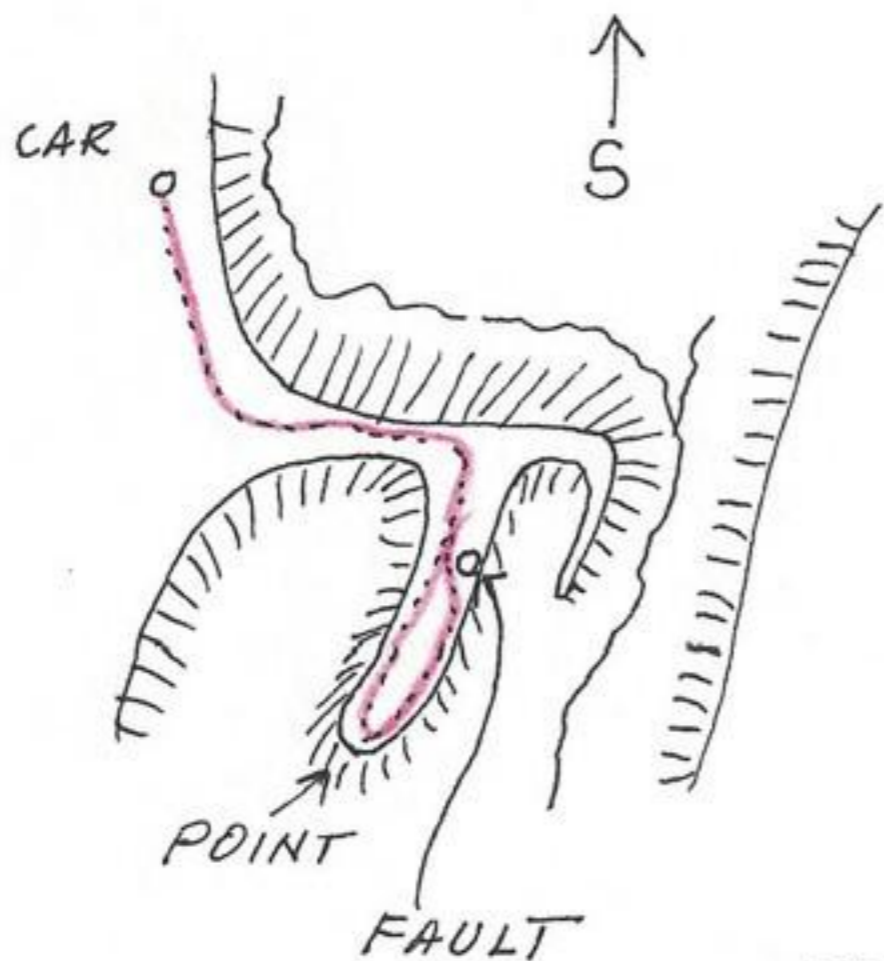
June 6-10, 1981

On 9<sup>th</sup> min. temp 62°F

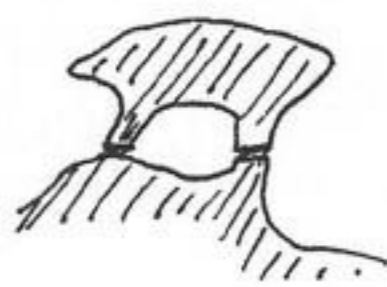
June 11, 1981

Trip to top of Casper mt in afternoon on plateau facing N  
and directly S of Casper.

Birds observed a hike to point  
(see map). 3 Oregon-juncos, 4  
mountain bluebirds, roven,  
redtail, gophers diggings (fresh),  
no *Citellus*, 6 *Eutamias* (*minimus*?),  
2 mule deer passed by at 150' away,  
one confident, the other weary.



limber pine.



near point 6 mule deer beds among  
One large rock supported by columns (3)  
Put "B" on W column to determine erosion rate.

many yellow mule-ear plants. Many other  
plants in blossom such as larkspur. Ponderosa  
pine and limberpine present. *Tamiasciurus*

had eaten terminal branches (cut them off) of limber pine.  
This high plateau surrounded by high cliffs (below) is a unique  
place and one that I would consider choice property to own.

835 14th E, Casper, Natrona Co., Wyoming,

June 12, 1981

min. Temp. 54°F Left Casper at mileage 35606.4 at 10:00 A.M.  
 In recollection of yesterday's return from top of Casper mt.,  
 observed approx. 40 antelope, most of them near the golf  
 course at Country Club exit on Southern Circuit road. 612.1  
 antelope. 612.4 Six Nat exit 12 antelope. 613.8 5  
 antelope and colony of Citellus. 613.3 10 antelope. 613.8  
 8 antelope. Heaviest smog in Casper area I have ever seen.  
 614.9 antelope, meadowlark. 614.9 antelope and prairie  
 dog town. 615.5 antelope, meadowlark. 616.0 2 antelope  
 617.2 2 antelope, meadowlark 618.1 antelope 619.5 antelope  
 3 swallows, 619.8 Converse Co. line. 620.2 antelope. 620.4  
 4 antelope. 621.1 3 antelope, sheep (domestic) in area. 621.7  
 antelope 622.0 8 antelope. 622.5 2 antelope. 624.1  
 3 antelope at 170 mileage past. 624.9 5 antelope and meadow-  
 lark. 625.9 antelope road kill. 628.5 Glenrock turn-  
 off, 2 swallows. 635.6 pond to left, no ducks, antelope  
 636.9 4 antelope feeding with cattle. 636.9 14 antelope.  
 638.2 antelope, 3 swallows. 638.6 8 antelope in river  
 valley. 639.5 mule deer road kill associated with a  
 drainage valley. 640.3 antelope, 2 swallows. 648.6  
 redwing. 650.9 Brewer blackbird. 655.8 no back on  
 highway 25 at Overpass (S) out of N entrance of Douglas.  
 657.2 N Platte River, Great blue heron. 660.0 3 antelope.  
 660.3 overpass (S entrance) to Douglas. 662.5 rough  
 erosion country to right, 2 mourning doves, lark bunting.  
 664.7 mourning dove. 666.8 4 antelope. 669.0 Lusk  
 overpass (18-20) <sup>exit</sup> 670.0 north Platte River 674.5 Platte  
 Co. on highway 25 just beyond an extensive prairie dog  
 colony. 675.3 end of prairie dog colony or 8/10 miles  
 of colony, meadowlark, several dogs were observed on  
 mounds. 678.8 rocks at Glendo dam dipping to the E.  
 681.7 10 antelope in cultivated field. 683.5 Glendo  
 underpass 685.2 unusually large whirlwind and sky  
 is 20% in clouds. 691.6 2 mourning doves, 2 Brewer  
 blackbirds and beginning of prairie dog town on both sides  
 of the road. 693.4 end of main colony or 2.8 miles of  
 colony. 694.8 Casa? Road turnoff, meadowlark, meadow-  
 lark. 698.9 antelope road kill. 702.1 now on 26, leaving  
 25, striped skunk road kill. (12:40 P.M.), mourning dove.

703.6 eastern kingbird. 705.3 2 meadowlarks. 705.  
 Surfer road epit. to n., meadowlark, western kingbird. 706.7  
 meadowlark, meadowlark. 707.8 striped skunk road kill.  
 meadowlark. 710.4 meadowlark. (2). 710.7 ferruginous  
 roughleg hawk, 2 meadowlarks, meadowlark, meadowlark.  
 716.7 Guernsey at North Platte River dam bridge. 721.7  
 Goshen Co., meadowlark. 724.2 2 meadowlarks, meadow-  
 lark. 725.9 grackle. 728.7 mourning dove. 729.5  
 Fort Laramie, meadowlark, Brewer blackbird, western  
 kingbird, 3 barn swallows. 732.4 western kingbird,  
 mourning dove, 13: lined ground squirrel, striped skunk  
 road kill. 733.4 western kingbird. 733.5 meadowlark  
 3 swallows, 734.1 western kingbird. 739.7 Lingle, <sup>grackle.</sup> 740.1  
 eastern kingbird. 741.6 2 striped skunk road kills, meadow-  
 lark. 743.5 striped skunk road kill. 744.6 grackle.  
 745.8 <sup>(2)</sup> grackle. 746.1 striped skunk road kill, eastern  
 kingbird. 751.3 meadowlark, grackle. 752.4 red-head-  
 ed woodpecker, grackle. 753.8 grackle, redwing. 755.4  
 killdeer, meadowlark. 757.1 Nebraska State (2:55 P.M.)  
 759.6 mourning dove. 761.3 3 swallows. 763.4 striped skunk  
 road kill, sparrow hawk, and first one since Casper. 764.4  
 Morrill (middle of town) 766.6 striped skunk road kill.  
 meadowlark. 767.9 meadowlark, redwing, meadowlark.  
 771.6 first pheasant road kill, meadowlark. 772.4 grackle  
 and first cattle feed lot. 776.8 mourning dove. 779.9 4 grackles  
 784.4 2 killdeer, grackle, redwing, redwing, redwing, redwing,  
 redwing, redwing. 785.5 grackle, redwing, eastern king-  
 bird, redwing, redwing, redwing. 786.2 2 redwings,  
 redwing, redwing, mourning dove, redwing, redwing,  
 redwing, redwing, redwing. This is part of highway  
 with railroad right-of-way in cattails, redwing, redwing,  
 redwing, redwing, redwing. 787.7 now leaving railroad  
 2 redwings. 788.2 2 redwings, grackle, grackle, grackle  
 789.5 minature. at E side of town, redwing, meadowlark just  
 outside of town, redwing, redwing. There are numerous  
 bull rush areas along road in this part of the country,  
 redwing, redwing, meadowlark. 791.0 Nine mile Creek,  
 2 redwings. Big feed lot just beyond. 793.2 grackle,  
 2 redwings. 794.1 5 redwings, redwing. 794.8 sparrow  
 hawk, redwing, grackle, redwing, grackle. 796.0 Morrill  
 Co., grackle 798.2 Wild Horse Creek, killdeer 800.0 grackle,

Killdeer, 802.4 3 barn swallows, redwing, killdeer, 2  
 redwings, redwing, meadowlark, redwing, redwing, redwing  
 803.7 mallard and redwing, redwing, redwing, redwing.  
 804.2 N Platte River. 805.2 down to 26, now back the  
 7 miles on detour. 812.0 now back to 92. Now E (4:30 P.M.)  
 grackle. 813.0 grackle, mourning dove. 813.7 striped  
 skunk road kill. 814.6 killdeer 815.2 grackle.  
 815.7 grackle. 813.3 yellow-billed cuckoo. 816.5 striped  
 skunk road kill. 817.8 grackle, meadowlark, eastern  
 kingbird, redwing. 819.5 first yucca, meadowlark, grackle.  
 375-detour 26 at 820.7 no S., mourning dove, mourning  
 dove, meadowlark. 824.4 Indian Creek, meadowlark.  
 825.5 first circular sprinkling system in valley to S. 827.4  
 grackle. 827.7 western kingbird, redwing June. 385-26  
 at 830.1 831.5 grackle. 833.9 meadowlark. Temp on  
 seat in car out of sun 96°F, meadowlark, redwing, meadow  
 lark. Swallows generally not recorded but distributed  
 along irrigation ditches, under bridges, but no more  
 numerous than they have been since Casper. 836.4  
 meadowlark and redwing, meadowlark, meadowlark,  
 meadowlark. 836.1 grackle. Some small sparrow  
 and may be vesper sparrows. 839.7 grackle. Definite  
 lack of English sparrows and starling, mourning dove,  
 meadowlark. 844.1 Broadwater, meadowlark, meadow-  
 lark and redwing, redwing. 846.0 grackle, western  
 kingbird. 848.0 meadowlark, mourning dove. 849.4  
 grackle, mourning dove. 850.9 mourning dove. N.  
 Platte River to S full of braided channels. 852.4 some  
 prairie-like mounds in area. 854.2 3 mourning doves,  
 meadowlark, 2 mourning doves. 856.0 meadowlark.  
 meadowlark. 856.6 Garden Co. 857.6 Lisco, meadow-  
 lark and mourning dove, 859.3 2 mourning dove. Temp  
 in car now 90°F, 2 meadowlarks. Outside temp 86°F  
 851.4 2 mourning doves, killdeer. 862.0 grackle. 863.7  
 redtail, mourning dove. 865.7 4 redwings, meadowlarks.  
 867.2 4 mourning doves, grackle, 2 grackles, mourning dove.  
 868.9 Eastern kingbird and meadowlark, meadowlark.  
 meadowlark, red-eyed vireo. 870.4 mourning dove, grackle,  
 mourning dove, meadowlark. 872.0 mourning dove.  
 intersection 26-27 at 873.0 at Oshkosh, grackle, 2  
 mourning doves, mourning dove. 874.7 mourning dove,

2 mourning doves, 2 mourning doves. 875.9 grackle, mourning doves, western kingbird, meadowlark 876.7 meadowlark, 2 mourning doves, mourning dove. 877.8 mourning dove, meadowlark, meadowlark. 879.5 western kingbird, 2 mourning doves meadowlark, redwing, 881.4 3 redwings, redwing, redwing, redwing (all associated with rushes), western kingbird, killdeer 882.6 Blue Creek, western kingbird, mourning dove 883.7 grackle, meadowlark. 884.5 Lawellen (at grain elevators), meadowlark, meadowlark. 884.6 now on highway 92 E. at (6:65 P.M.), meadowlark, meadowlark. 886.7 western kingbird. 887.6 first turkey vulture (since Casper), western kingbird, meadowlark, mourning dove, robin, eastern kingbird. 889.2 Keith Co. on 92. 890.0 Clear Creek 890.6 2 mourning doves, first view of lake, meadowlark. 891.7 mourning dove, 2 mourning doves, meadowlark. 35893.5 State <sup>Rec.</sup> Park no. 1 at 7:10 P.M. 894.2 now back on 92 to E. meadowlark. 895.3 mourning dove, meadowlark, mourning dove, Lake unusually deep blue, mourning dove. Now on road 13, many juniper planted here, mourning dove, eastern kingbird. Camped at Lake McConaughy State Rec. area at 901.6. Travelled 294.9 miles today.

Lake McConaughy State Rec. Area, Keith Co., Nebraska

June 13, 1981

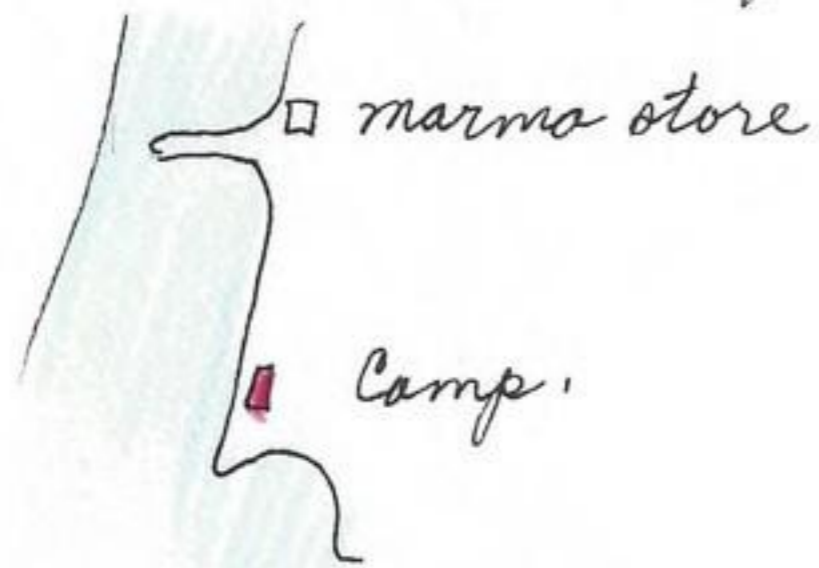
Birds at lake: 6 Franklin gulls, 2 killdeer, 12 barn swallows, western kingbird, mourning dove, 2 toads. Min. Temp last night 64°F. Wind high all night, sky clear. Spiderwort, black-eyed susan, hairy vetch in area.

Took several photos before departure from McConaughy Lake, 810613-1 to 810613-5 sand and waves. [no record between 810613-6 and 810613-7 photos of Century plant, 35901.6 and 36000.6] Photo 810613-8 of Cretaceous rocks and waves. [new reel in recorder at mileage 36000.6 ← Last reel about a g. b. heron and juniper trees along the river? 36000.6 meadowlark. 006.3 grackle, mourning dove, 006.9 western kingbird. 007.1 grackle. 007.3 odor of skunk. 008.3 Dawson Co. line. 009.1 2 grackles. 011.5 striped skunk road kill. 013.7 redwing blackbird, redwing. 015.3 redwing. 017.1 western kingbird. 017.9 3 grackles. 018.7 redwing. 022.0 exit <sup>222</sup> Cozad. 2 grackles, 1 W kingbird, redwing, redwing. 027.3 grackle. 030.0 grackle. Exit 231 to Darr at 030.4. 041.3 W kingbird

and redwing, grackle. 045.0 mourning dove, 046.3 red-  
 wing. 047.4 Eastern Kingbird. 049.2 Spring Creek, grackle,  
 052.2 grackle, 054.4 Buffalo Co., at 3:15 P.M. End 257<sup>(183)</sup> at  
 Elm Creek at 056.1. (80 all the way so far in Nebraska), now  
 5 toward Holdrege. 056.3 now on 257 S. (183). 056.7  
 Platte River, low. 057.8 Phelps Co. at S Canal of Platte River.  
 059.6 W Kingbird. 061.3 5 grackles, 1 W Kingbird, 063.0  
 3 grackles. 065.6 crow; grackle, grackle, redwing, redwing.  
 067.7 striped skunk road kill, grackle, grackle. 069.4  
 mourning dove. 071.4 3 mourning doves, 2 redwings.  
 073.2 Junction 6-34 and 183 at Holdrege. 074.4 redwing.  
 074.7 red-headed woodpecker and 1/2 mile from trees.  
 077.8 2 redwings, meadowlark, striped skunk road kill.  
 078.3 meadowlark. 079.0 Harlan Co. 2 redwings,  
 grackle, 2 mourning doves, 080.3 meadowlark, grackle,  
 meadowlark, 080.9 Turkey Cr., 081.7 mourning dove,  
 shrike. 082.2 highway 4 junction, 2 grackles, 083.1  
 redwing, meadowlark, meadowlark, Turkey vulture. Country  
 grazing and green. 084.0 raccoon road kill, ponds low.  
 redwing. 085.1 mourning dove, mourning dove. No  
 ducks or shorebirds in or at edge of ponds, 2 mourning doves,  
 E Kingbird. 087.8 loggerhead shrike (all shrikes are this species).  
 meadowlark, meadowlark, 089.0 Junction 42 A. 091.8 striped  
 skunk road kill. 093.0 3 mourning doves, 095.0 Junction 136 at  
 Alma. 097.0 Republican River. Harlan Lake water up  
 to causeway. 20 white pelican, 8 redwings across  
 causeway, 2 double-crested cormorant, meadowlark, redwing.  
 100.0 meadowlark. Wheat yellow here and green in  
 Nebraska along highway 80. 101.3 first brushy slopes.  
 102.1 Prairie Dog Creek and grackle. 102.9 Kansas  
 border and Phillips Co. at 4:25 P.M. 103.6 2 redwings  
 rock pigeons travelling 42 miles per hour. 104.7 meadowlark,  
 redwing. 105.6 E Kingbird. Ponds full but no water birds.  
 106.9 meadowlark. 107.1 striped skunk road kill. 2 swallows  
 per 3 miles in Kansas so far. 107.8 meadowlark, meadowlark.  
 108.4 striped skunk road kill and grackle. 109.3 grackle,  
 redwing, redwing, cowbird, redwing. 109.9 grackle, 111.1  
 2 grackles. 111.5 meadowlark. 111.8 mourning dove and  
 grackle, grackle, mourning dove, meadowlark. 112.4  
 mourning dove, 2 meadowlarks, 114.0 grackle, 114.8  
 redwing. 115.5 mourning dove. 116.6 redwing, grackle.

117.6 redwing, 119.7 mourning dove, meadowlark, 120.1  
 Phillipsburg at railroad crossing. 121.1 junction 36-183.  
 123.4 E Kingbird. 124.1 Deer Creek, mourning dove.  
 124.7 mourning dove, 2 mourning doves. 125.4 mourning  
 dove. 125.9 2 striped skunk roadkills about 200' apart.  
 126.9 junction 9<sup>183</sup> now E on 9. 128.1 redwing, 1 to 3 barn  
 swallows at <sup>some of the</sup> drainage coverts at <sup>about</sup> 2 per every 3 miles.  
 130.0 2 mourning doves. 130.3 mourning dove. 130.7  
 mourning dove. wheat all yellow (green in Nebraska  
 along 183). 133.9 mourning dove. 136.0 mourning dove,  
 3 brown-headed cowbirds. 136.8 Kiwin (road to dam)  
 137.1 Kiwin turnoff (on 9), 2 grackles, mourning dove.  
 137.8 mourning dove. 139.2 mourning dove, mourning dove,  
 redwing, mourning dove, increase in numbers of barn  
 swallows. 139.7 Smith Co., 2 meadowlarks. 140.5 red-  
 headed woodpecker, mourning dove. 141.3 horned lark.  
 141.7 Claudell 142.7 2 meadowlarks, 2 mourning doves 42.6  
 meadowlark, mourning dove, redwing. 143.4 2 mourning  
 doves, redwing, mourning dove. 145.5 mourning, meadowlark.  
 mourning dove. 146.4 Cedar. 147.6 2 mourning doves,  
 mourning dove, mourning dove. 147.7 Cedar Creek, 2 mourn-  
 ing doves. water low in creek. 148.3 redwing flying 38  
 miles per hour. 149.0 2 mourning doves. 150.2 mourning  
 dove. 150.7 mourning dove, Kildeer. 151.4 Gaylard,  
 2 mourning doves. 152.4 3 redwings, 2 mourning doves.  
 152.7 2 redwings, grackle. 154.4 2 mourning doves.  
 154.8 now S on 281. 155.7 mourning dove, eastern  
 kingbird, redwing blackbird. 156.4 mourning dove,  
 mourning dove, 2 mourning doves, mourning dove,  
 mourning dove. 157.3 2 mourning doves. 157.5 Harlan,  
 mourning dove, mourning dove. 158.3 mourning dove.  
 160.3 Kildeer. 162.2 mourning dove. 162.5 Osborne  
 Co. line. 162.8 Portis (railroad crossing). 163.4 N fork  
 Solomon River, practically no water, meadowlark, redwing.  
 grackle. 164.8 first dickcissel, mourning dove. 165.5 redwing.  
 redwing, redwing. 166.1 mourning dove. 166.6 no E on 24 + 9.  
 at 7:06 P.M. 167.1 2 redwings. 168.0 3 grackles, western  
 kingbird. 168.9 2 redwings, w kingbird 169.5 mourning  
 dove, redwing, redwing, redwing, 2 redwings. 170.7 2 mourning  
 doves. 171.5 3 redwings. 171.6 N Solomon River and  
 not much water. 173.3 dickcissel. 174.6 downs junction  
 181. 175.6 brown headed cowbird, 2 cowbirds. 176.0 Cowbird.

177.3 Mitchell Co. 178.3 Oak Creek. 179.9 2 mourning doves. 180.2 Tipton turnoff in middle of Cowker. 181.4 2 mourning doves, redwing, redwing. 182.9 redwing, mourning dove. 183.4 Granite Creek. Otellus road kill on E side of dam, mallard, redwing, redwing. 184.3 striped skunk road kill. 185.6 3 redwings, redwing. 186.5 Glen Elder or Walonda Lake State Park at 7:30 P.M. Brown thrasher near visitor center. Camped in old traditional camp approx 2/10 mi. S of marmo store.



Camp at 36 187.6 mileage  
Traveled 286.3 miles today.  
Grackles moved w in groups of 3-10  
in evening. In moonlight can see  
5-7 swells along shore.

Walonda Lake State Park, Mitchell Co., Kansas

June 14, 1981

min temp last night 76°F, wind constant to daybreak.  
Cormorant, Killdeer. A male and female boat-tailed  
grackle in area of camp. The female is brownish  
and can easily be separated from ♀ of <sup>Common</sup> grackle.  
Left at 36 187.6 at 8:00 A.M. 189.6 Glen Elder turnoff.  
at bridge. 190.6 brown-headed cowbird and redwing.  
192.2 brown-headed cowbird, Killdeer. 193.6 3 cowbirds.  
194.3 Killdeer. Stone fence posts in area, 3 barn  
swallows. 195.5 3 swallows. 196.0 Salmon Rapids.  
3 cowbirds, redwing. 196.7 mourning dove. 197.6 mourning  
dove, redwing, 2 barn swallows, duckussel. 197.7 loggerhead  
shrike. 198.1 sparrow hawk. 196.2 2 red-tailed hawks on  
consecutive utility poles. 199.5 mourning dove. 200.0  
junction 24-14, at Beloit, 3 grackles, 200.9 mourning  
dove. 202.1 red-tailed hawk, barn swallow. 203.1  
grackle. 203.4 red-tailed hawk. 204.1 Plum Creek, water  
low. 205.4 meadowlark. 205.5 2 redwings. 205.6 fox  
squirrel on pole 100' from trees, redwing. 207.7 grackle.  
208.0 2 redwings, redwing. 208.3 redwing, swallow.  
209.1 grackle, junction 193-24 at 209.2. 210.0 mourning  
dove, meadowlark, redwing. 210.3 2 mourning doves. 210.6  
redwing, grackle, swallow, mourning dove, meadowlark.  
211.2 2 mourning doves, swallow, cowbird. 211.8 Cloud Co.



and junction 194. 212.4 grackle, mourning dove, swallow.  
 212.7 2 mourning doves. 213.7 mourning dove. 214.1  
 grackle, swallow. Overcast but clouds with detail and close  
 cumulus. 214.9 redwing. 215.6 2 cowbirds, grackle,  
 216.0 redwing. 216.3 grackle, redwing. 218.1 Glasses.  
 redwing, 2 mourning doves. 219.2 grackle, meadowlark.  
 220.0 mourning dove. 224.0 2 cowbirds, mourning dove,  
 2 redwings. 220 mourning dove, 2 swallows. (Most of  
 the unidentified species of swallows are barn swallows,  
 2 cowbirds, killdeer. 221.4 cowbird, 2 redwings, mourning  
 dove. 223.1 robin. 224.1 redwing. 224.4 redwing,  
 redwing, redwing. 225.0 meadowlark, 2 barn  
 swallows. 225.4 2 mourning doves, meadowlark.  
 226.5 3 mourning doves, redwing. 226.7 junction 81,  
 grackle. 227.1 2 grackles, cowbird. 228.1 2 red-tailed  
 hawks, yellow shafted woodpecker. 228.6 meadowlark,  
 mourning dove, barn swallow. 229.6 sparrow hawk and  
 redwing, mourning dove, 2 swallows. 230.7 cowbird,  
 redwing. 231.1 mourning dove, five dickcissels.  
 2 swallows, 2 cowbirds. 231.7 2 swallows, ponds  
 are full. 233.0 2 dickcissels, 2 barn swallows, redwing,  
 swallow. 234.2 2 cowbirds, 4 swallows, cowbird,  
 2 swallows. 235.0 mourning dove, redwing, meadowlark,  
 235.7 cowbird. 236.0 upland plover, meadowlark.  
 236.5 Crossing railroad tracks, 2 swallows, swallow,  
 swallow, 3 swallows, robin, cowbird (all cowbirds on  
 trip are brown-headed cowbirds. 238.3 junction 189.  
 283.9 dead trees to N. (50% dead). 240.2 grackle. 241.0  
 cowbird. 241.7 mourning dove, mourning dove. 242.1 2  
 redwings, redwing, 2 redwings, redwing, 2 redwings, all  
 associated with brush area. 242.5 Clay Co., meadowlark,  
 meadowlark, mourning dove. 243.5 3 cowbirds, 3  
 cowbirds, swallow. 244.0 cowbird, 2 swallows (barn).  
 244.2 upland plover. 244.4 meadowlark. 245.0 meadow-  
 lark, 2 barn swallows. (swallows are generally associated  
 with culverts or buildings, killdeer. 246.0 redwing and  
 red-tailed hawk, mourning dove, redwing. 246.8 3  
 grackles, 2 mourning doves, 3 swallows, mourning dove,  
 redwing, meadowlark. Junction 827. 247.4, mourning  
 dove, redwing. 248.1 meadowlark, mourning dove,  
 meadowlark, 2 barn swallows, redwing, killdeer,

meadowlark, 249.0 cowbird, junction 832 at 249, 3.  
 249.9 barn swallow, 250.3 redwing, redwing, redwing.  
 250.7 meadowlark, 251.4 Cowbird, mourning dove,  
 251.6 mourning dove, cowbird, E end Republican Riv 252.7.  
 City limits at <sup>Clay Center</sup> 254.1. 255.4 junction 15.-24. 256.6  
 mourning dove, mourning dove, 4 cowbirds, grackle, 257.4  
 robin, mourning dove, 2 mourning doves, 259.5  
 mourning dove, mourning dove, 2 cowbirds, redwing.  
 mourning dove, 260.3 2 mourning doves, mourning dove,  
 redwing. 261.3 2 mourning doves, cowbird. 262.7  
 cowbird. 263.9 Riley Co., 2 mourning doves, mourning  
 dove, grackles, mourning dove, 2 redwings, 2 swallows.  
 264.3 mourning dove, shrike. junction 873 and  
 24 at 264.9 2 swallows, cowbird. 265.7 2 grackles.  
 265.8 meadowlark, 4 barn swallows, mourning dove.  
 junction 82-24 at 266.8. 267.9 2 swallows, mourning  
 dove, 2 grackles. 268.9 Killdeer, 2 grackles, mourning  
 dove, w kingbird. 270.2 middle Leonardville on 24.  
 junction 875-24 270.7 cowbird. 271.3 cowbird.  
 grackle, 274.2 meadowlark, 275.1 cowbird, grackle,  
 robin. 275.1 Junction 77-24 at Riley. 278.8 meadowlark,  
 grackle and redwing, 279.3 2 grackles. 279.8 177 and  
 24 to SE. at 11:00 AM. 285.5 2 swallows. 282.1 grackle.  
 284.1 raccoon road kill. 285.1 mourning dove, 285.5  
 grackle, grackle. 287.2 grackle. 288.4 meadowlark,  
 grackle, 293.3 striped skunk road kill. 295.2 Smoky  
 Hill River, full, on 177. 298.2 3 swallows, 298.9  
 great blue heron, cowbird, 299.6 meadowlark, cowbird.  
 300.4 Cowbird and meadowlark, 302.0 mourning  
 dove. 302.5 Geary Co., mourning dove. Burnt-over  
 area of previous period look good & green but what has  
 happened to the mammals, birds, herps and arthropods.  
 303.2 overpass of 70, now E. on 70. 303.4 on 70 now,  
 at 11:40 A.M. Flint Hills have never looked so green.  
 305.4 Riley Co. 307.8 cowbird. 310.7 mourning dove.  
 311.2 Wabunsee Co., cowbird. 319.2 eastern kingbird. 320.0  
 3 Brewer's blackbirds. 321.7 2 mourning doves. 322.3  
 mill Creek, full but not overflowing, Cicadas calling.  
 328.2 ponds are full. 329.2 cowbird. 331.5 2 cowbirds.  
 ♂♀. 332.3 meadowlark, 2 redwing, dickcissel, redwing.  
 333.2 2 cowbirds, redwing. 334.7 Shawnee Co., 335.2

redwing. 338.1 grackle. 339.4 Messum Creek not full,  
 340.4 meadowlark, 344.5 470 and Wanemaker Road, exit  
 1. now on Stull Road at S end Shawnee Lake road (further)  
 at 355.1. 355.4 striped skunk road kill. 356.4 grackle.  
 358.0 Box turtle and first one observed on trip. 361.1 2  
 red-headed woodpeckers, 362.0 Douglas Co. 362.6  
 dickcissel. 363.0 dickcissel. 364.8 dickcissel. 365.2  
 Stull (Clinton turnoff). 366.2 meadowlark, mourning dove  
 366.9 opossum road kill, now turning N (road closed) to  
 40, thence E to Lawrence, 368.9 2 grackles, 370.4  
 now on 40 and N towards Leempton to connect with "farmers  
 turnpike" that parallels 70. 371.9 redwing. 372.1  
 catbird and bluejay, 372.7 now leaving "farmers turnpike"  
 to pick up Ruby (our dog) who has been in kennels during  
 trip, <sup>then back to main road.</sup> 374.1 redwing, 2 swallows, meadowlark, 374.9  
 meadowlark, dickcissel. 376.2 2 redwings, dickcissel,  
 dickcissel. 376.6 Baldwin Creek. dickcissel. 377.4  
 Kasold and "farmers turnpike", 2 barn swallows, 377.8  
 redwing and dickcissel, grackle, Home 36379.1 at  
 3:30 P.M., or 6,821.9 miles covered on this trip W.

[ Chart distribution of birds from mileage in journal and compare  
 with censuses of earlier years ]

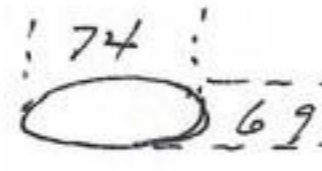
402 Yorkshire Dr., Lawrence, Douglas Co., Kansas

June 15, 1981

Robin in yard with young filling nest. This evening at 7:30 P.M. Hail in yard, rain and high wind and tornado at 35<sup>th</sup> and Iowa.

measured hail and weighed:

74 mm	x	69 mm	, 101 gms.
100	x	71	140 gms
78	x	56	78 gms
<u>168</u>	x	64	88 gms
77	x	66	77 gms
54	x	52	52 gms
61	x	57	60 gms
73	x	<u>77</u>	73 gms
<u>42</u>	x	37	
<u>63</u>	x	53	
53	x	48	flattish
56	x	47	round & flat
75	x	58	" " "
46	x	<u>36</u>	" " "
56	x	45	round.

 example of greatest length and width.

402 Yorkshire Dr., Lawrence, Kansas

June 20, 1981

Photo 810620-1 round-flat rocks from Kalalock Camp, Olympic National Park, Washington.

June 21, 1981

Photo 810621-1 rain and water in driveway to house. James R., Annette and I checked Rock Creek Marina this afternoon.

June 23, 1981

Photo 810621-1 of hail that fell June 15, 1981 against ring.  
 " 810621-2 close-up largest hail stone.  
 " 810621-3 hail on dime on branch Scots pine.

The hail stones had been kept in refrigerator since June 15, 1981

July 1, 1981

Captured and prepared as specimen 810701-1, monarch butterfly.

Lawrence, ~~Lawrence~~ Douglas Co., Kansas

July 10, 1981

To Topeka, Still road. Dickcissels about 1 per 2 miles and calling. Turkey vulture in road this side of Leempton on return.

July 11, 1981

Cat brought in a *Scymnodon hispidus* this A.M. (402 Yorkshire Dr.)

July 20, 1981

Grackles have been flocking for at least the last 1 1/2 weeks flying S over house (402 Yorkshire) in evening. At home the grackles have been nesting in trees around yard because the trees are now reaching a size for nesting. At one time there were 9 grackles in the back yard, 3 of them were young. Robins had young about 3 weeks ago. The young when they leave the nest are inactive and stay in lower branches of different trees in the yard. As they grow older they become active and will even chase the English sparrows.

Lawrence, ~~Lawrence~~ Kansas

July 18-19, 1981

Christopher Nye and I made two day trip down Kansas River to Bonner Springs.

July 29, 1981

Drove out to Clinton Lake. Water at 823 1/2 ft <sup>E side</sup> at outlet. 878' on W side of dam. No aquatic birds on lake. 10 meadow larks along dam on E side.

July 31, 1981

Dickcissels still calling in countryside. At home barn swallows follow back of lawn mower in yard. Neighbors have asked if these birds are dangerous when hawking for displaced insects.

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas

July 31, 1981

Collected a wood boring beetle from Cottonwood at home. Specimen number 810731-1

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas

Aug 8, 1981

Collected Cicada 810808-1 and horse fly 810802-2.

Aug. 19, 1981

Last night  $52^{\circ}\text{F}$  <sup>mixed</sup>  $70^{\circ}\text{F}$  at 10:00 A.M. Sun up at approx. 6:45 A.M. Small flocks of grackles, cowbirds, starling and blackbirds, mainly starling have gradually been building up in last two months. This morning approx. 2,000,000 grackles, blackbirds etc. (the largest seen this season). They started to fly by at 6:45 and continued to 7:00 A.M. The clearer the sky the higher they fly.

Aug 25, 1981

From 7:00 P.M. to 8:00 P.M., first group of nighthawks at 402 Yorkshire. Flight <sup>width</sup> from Yorkshire to 110 mi. E on Westchester at approx. 4 birds per acre of sky space.

Aug 26, 1981

Collected moth 810826-1 from 6" high on pole set in grass. Dull day, 12:00 A.M.

Sept 1, 1981 (810901-1)

Collected swallowtail butterfly. (When date occurs along it has reference to last locality defined above and in this case goes back to top of page (Aug 8 locality)).  
Collected bumblebee no (810901-2).

Sept. 3, 1981

Collected monarch butterfly no. 810903-1.

Noted 2 ruby-throated humming birds. Blue jays are increasing (overage per week observed (5)). First black-capped chickadee observed for season.

Collected a brown-spotted butterfly. <sup>810903-2</sup> It moved from plant to plant and twice alighted on me.  $\rightarrow$  Asterocampa celtis (Sand Lee.)  
Collected white butterfly. 810903-3 Hickberry empress.

Sept. 4, 1981

Collected Cicada 810904-1

" bumblebee from flowers 810904-2.

" spotted butterfly 810904-3

402 yorkshire<sup>Dr.</sup> Lawrence, Douglas Co., Kansas  
in June, 1981

Sept. 7, 1981

Collected 4 butterflies

810907-1 monarch

810907-2 small black and white spotted,

810907-3 monarch

810907-4 monarch,

This A.M. rain and cold. In last week there has been an increase in butterflies over last week, more monarchs, did not observe swallowtailed butterflies this week,

Sept. 8, 1981

Collected the following butterflies.

810908-1 admiral

810908-2 monarch

810908-3 white and black spotted

810908-4 " " " "

810908-5 monarch.

All monarchs and monarchs to S at 1 per hour 20 minutes, many are hitting picture window in attempting to go to light of bay window on W side of house.

Admirals observed 1 per 2 hours, whites 1 per 30 minutes and usually in pairs.

no large yellows today but several small yellow.

Sept 9, 1981

Collected following butterflies:

810909-1 violet-tipped angle wing, *Polygonia interrogatilis*.

810909-2 buckeye, *Junonia loenia*.

810909-3 same species as no 810909-1 above.

810909-4 monarch *Danaus plexippus*,

810909-5 " " " (dead on lawn)

810909-6 " " "

Sept. 10, 1981

Collected the following butterflies

810910-1 violet tipped

810910-2 Cottonwood borer, *Plectrodon scabator*

810910-3 violet-tipped butterfly

810910-4 " " "

810910-5 *Pyrus* ♀ sp.? (checker spotted skipper?)

810910-6 *Pyrus* ♂ sp.?

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
 Sept. 13, 1981

Collected the following butterflies:

- 810913-1 violet-tipped anglewing. *Polygonia interrogatoris*  
 810913-2 " " " " "  
 810913-3 viceroy. *Basilarchia archippus*.  
 810913-4 hop merchant. *Polygonia comma*  
 810913-5 buckeye. *Junonia laenia*.

Sept. 14, 1981

Collected the following butterflies:

- 810914-1 monarch  
 810914-2 "  
 810914-3 clouded sulphur *Colias philadice*  
 810914-4 Hackberry empress. *Asterocampa celtis*.  
 810914-5 Painted lady *Vanessa cardui*  
 810913-6 alfalfa butterfly *Colias eurytheme*.

Sept. 15, 1981

First flight from night roosting area at 6:58<sup>am</sup>, Temp. 56°F, from Hallmark Roosting site  
 First group 9, then larger groups of about equal size  
 to 7:00 A.M., then large flocks started. To NW mainly

7:06 A.M. massive flight over

7:07 A.M. just occasional bird.

7:09 A.M. about 2000 birds

7:10 A.M. 300 birds and last of flight.

A group of 31 Canada geese flew by in opposite direction  
 to blackbirds movement.

7:25 A.M. sun up at house.

Collected the following butterflies this P.M.

- 810915-2 admiral  
 810915-3 red-spotted purple,  
 810915-4 violet-tipped anglewing  
 810915-5 " " "  
 810915-6 —  
 810915-7 violet-tipped anglewing  
 810915-8 hackberry empress,  
 810915-9 anglewing.



402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
 Sept. 16, 1981

Temp. 47, breeze. Flight of icterids from Hallmark Roasting Site  
 6:59 A.M. first birds in a group of 6.  
 7:03 A.M. main, continuous flight. Flight low and erratic  
 because of breeze.  
 7:11 main continuous flight ending and now just a few stragglers  
 7:13 end flight of stragglers.

Sept 17, 1981

Christopher Nye of 1114 Mississippi St., Lawrence, Kansas  
 reports that approx 1 month ago at Wakarusa crossing on  
 S side of Clinton Reservoir road, noted 22 great blue heron  
 in flooded fields below dam. Also 6 American egrets,  
 cattle egrets and regular egrets (referring to common egret,  
 cattle egret and snowy egrets).

402 Yorkshire, Lawrence, Douglas Co., Kansas  
 Sept. 18, 1981

Collected the following butterflies.

810918-1 giant swallow-tailed butterfly. *Pipilo cerythron*.

Blackbirds (grackles, cowbirds, starling, etc), as usual  
 this A.M. after yesterday's cold spell.

Only occasional butterfly this A.M. but few (more) in P.M.,  
 noticeable depreciation in numbers.  $\frac{1}{20}$ th of the usual  
 number of monarchs after cold spell.

Sept. 19, 1981

First icterids 6:58 A.M., 2-10 groups. Hallmark site

7:01 main flight of massive exodus from City Roasting site,

7:09 end of continuous mass. After continuous mass flight,  
 groups of 2-15 birds until 7:10 A.M. when all birds had passed  
 by.

Collected the following butterflies:

810919-1 monarch. *Danaus plexippus*

810919-2 Hop merchant. *Polygona interruptaria*

810919-3 white alfalfa *Colias alba*

810919-4 monarch *Danaus plexippus*

At 7:00 P.M. checked grove of trees S of Hallmarks  
 where at least 2 million icterids arrived for roosting.  
 (grackles, starling, cowbirds, redwings, robins.

90% 6% 2% 1% 1% *estimatoris*

The incoming flight started 7:00 P.M. and ended 7:30 P.M. (from sunset to twilight)

The was a continuous inflight of line 120 feet wide x 80' high <sup>averaging</sup> from NNW to <sup>but</sup> NW, mainly from NW. Birds flew directly into trees (Cottonwood and willow) without checking speed or circular deviation of inflight pattern. This behaviorism is to gain roosting site as inconspicuously as possible so as not to attract predators. This action is even more important for birds who roost on ground.

Lake View, Douglas Co., Kansas.  
~~in in~~ ~~up is~~ ~~in~~  
 Sept 20, 1981

Drove to hillside SW of Lake View Lake before sunrise to check on icterid flight from Hallmark roost.

6:50 A.M. red-tailed hawk and sparrow hawk active in flight.

7:03 2 crows active.

7:08 sky brilliantly colored in sunrise area, 8 crows active.

7:09 sunrise and first blackbirds near powerplant.

7:13 first major continuous flight (2/10 mi W and 300' high).

7:23 end of continuous flight.

noted 6 grackles on a utility line but did not see them leave flock. No icterids in field during flight. Redtail did not chase icterids. 4 crows arrived in to area of flight.

7:25 last of stragglers

7:28-7:32 3 groups of 400 icterid each flew by, some alighting in tops of trees. Last group flew closer to hills and at top of benchland level. These birds and others that followed did not act in same way as the first group at (7:09-7:25).

Another group at 7:35 definitely were coming from another roosting area other than Hallmark, must likely farther N.

7:36-7:45 Continuous flight of large groups.

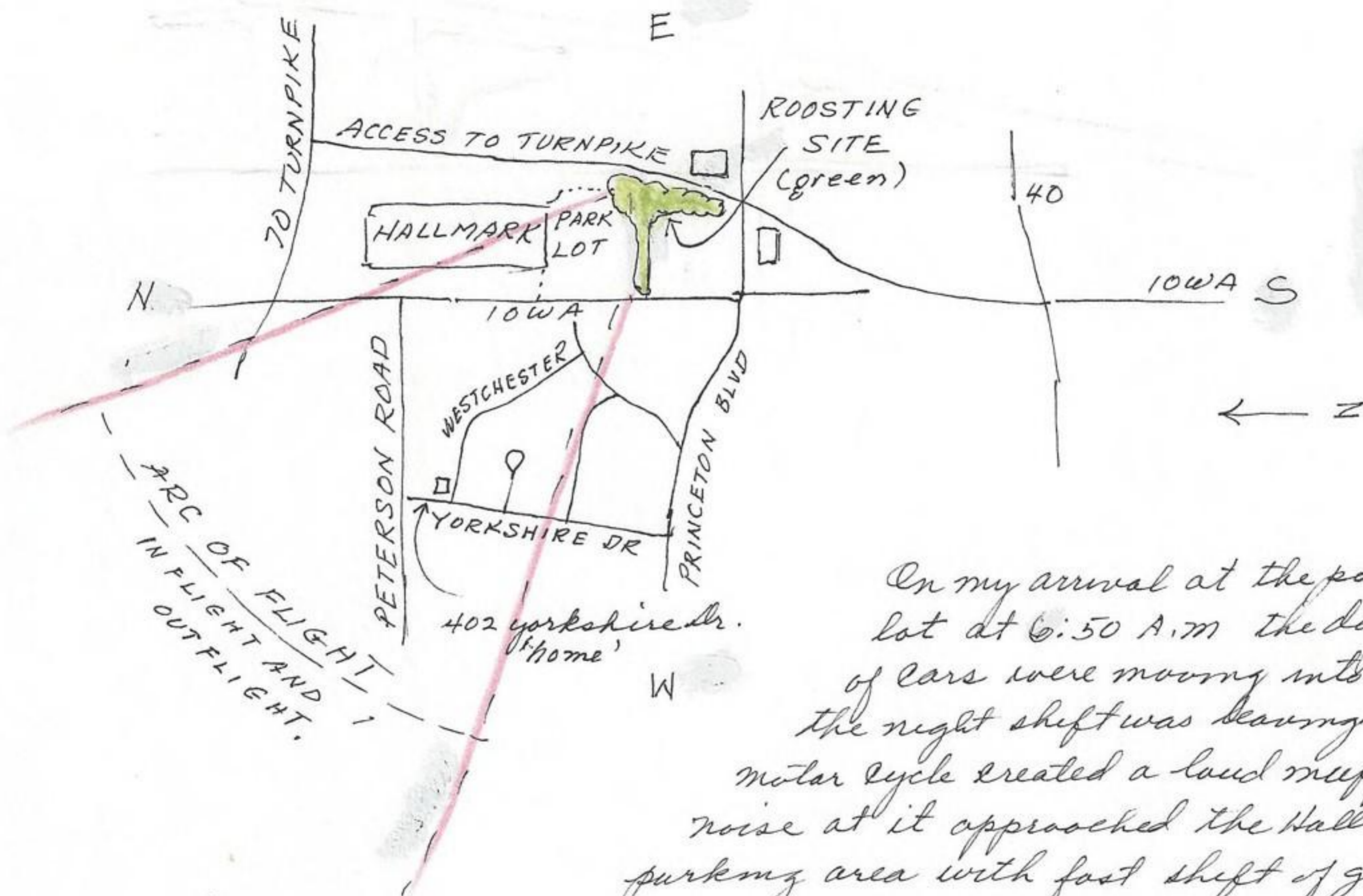
7:52-7:58 4000 icterids passed but nearer the power plant, all flying WSW.

Other small groups flying in random directions. By now there were icterids in fields and on utility lines. A great blue heron flew by.

Lawrence, Douglas Co., Kansas

Sept. 21, 1981

Checked departure of icterids (blackbirds of grackles, cowbirds, starling redwings and some robins).



On my arrival at the parking lot at 6:50 A.M. the day shift of cars were moving into lot & the night shift was leaving. One motor cycle created a loud muffler noise at it approached the Hallmark parking area with fast shift of gears etc.

Some trucks were arriving for transportation of product, all in all it seemed an unusual loud noise and confusion but the birds did not leave roosting area until the proper biological clock was ready to move them. The birds moved to tops of trees, calling continuously as they moved about. A grackle and a robin were the first to leave (6:53 A.M.) and they flew WNW in - to residential area 1/10 mile away. Kept record of light factor on Weston Exposure meter. Units are Candlepower. Meter held upward toward the sky for reading factor.

3.2 6:54 singles and groups 1-3 left to NW.  
5.0 6:55 first massive move, continuous but in waves of thousands of birds up to 7:05 A.M. Then flocks to 7:08 when last bird left at which period the noise (calling) of birds diminished to 0.

Sun up at 7:13 A.M.

Took several photos of this outward flight from roosting area. most of them about 200' on flight lane from roosting trees.

Photo 810921-1 at 6:59, 30 sec, ap 4.5 showing concentration of birds working up to top of trees and calling.

Photos 810921-2 to 810921-13 of birds in massive flight. Last one shows lightning on clouds.

It is unusual that these birds chase <sup>small</sup> this area for roosting with a busy turnpike access road on one side, a county or city road on the other side and a busy parking lot associated with Hallmarks. In spite of the interference these birds departed according to a biological clock.

at home (402 Yorkshire Dr.) called a viceroys butterfly, *Brasilarchia archippus* no. 810921-32, (in afternoon)  
Also collected the following butterflies:

810921-33 monarch

810921-34 "

810921-35 "

810921-36 goatweed *Anasa andria*.

810921-37 alfalfa butterfly. *Colias eurhytheme*

810921-38 " " *Colias alba*

810921-39 small moth.

At 7:00 P.M. 30 nighthawks between Peterson, Yorkshire and Westchester roads.

Lawrence, Douglas Co., Kansas  
Sept. 22, 1981

Checked departure of ceterids (grackles, starlings, cowbirds, redwings, etc.) at Hallmarks (ribbon mfg Co.). See Sept 21 for map of area. Correlated departure with time and light conditions (western meter, candlepower)  
6:55 A.M. single grackle left roosting trees and flew 2/10 mi. W to residential area.

6:56 - 3.2 candlepower (reading from sky directly above).

6:57 - 4.8

6:58 first group 15 grackles left to NW.

6:59 no birds in flight.

7:00 <sup>6.5 candlepower</sup> 600 grackles left in one group followed by no departures.

7:01 approx 500 grackles flew from one tree to another.

7:02 massive and continuous flight started. Quarter moon directly above. candlepower 9.7

7:09 slight slowing down of departures.

7:10 25.0 candlepower. Massive, explosive departure to NW.

7:11. 32 candlepower. Birds now just a few stragglers.

Birds call in flight. At 7:11 A.M. no noise from roosting area.

Took several photos:

810922-1 birds in flight but speed of camera not fast enough.

810922-2 *ibid*  
 810922-3 *ibid*.

In the afternoon collected the following butterflies at  
 402 Yorkshire, Lawrence, Douglas Co., Kansas.

810922-11 monarch  
 810922-12 silver spotted skipper *Epargyreus tetypus*.  
 810922-13 *Colias eurytheme* ♂  
 810922-14 *ibid*  
 810922-15 *Colias alba*.

Lawrence, Douglas Co., Kansas  
Sept. 23, 1981

Checked grackles and other birds in flock from roosting trees 5  
 of Hallmarks. Temp 55°F, 2,000,000 in flock,  
 6:55 A.M. candlepower 3.2  
 6:58 first grackles left to NW.

7:00 candlepower 4.5

7:01 main flock departed

7:13 candlepower 50 last of massive flight & last to leave.

7:22 sun up (3 diameters above horizon). Some clouds in S.

This morning the departure of birds was the most constant in  
 numbers leaving I have witnessed.

On way over this A.M. to Hallmarks from home observe 1 robin <sup>on lawn</sup>.  
 On return after sunrise noted 8 robins, 18 starling and 6 grackles  
 on lawns

This A.M. took 8 photos of herds (mainly grackles) in the outward flight.

Photo 810923-1

" 810923-2

" 810923-3

" 810923-4

" 810923-5

" 810923-6

Photo 810923-7 of Annette during a stage in the construction of the bay window  
 at 402 Yorkshire Dr., Lawrence, Kansas.

This afternoon collected the following butterflies from 402

Yorkshire Dr. (1 to 4 P.M.)  
 810923-15 violet-tipped angle wing  
 810923-16 silver spots

810923-17 alfalfa butterfly ♀

810923-18 " " ♂

810923-19 " " ♂

810923-20 " " ♂

nighthawks and chimney swifts in air.  
 Photo 810923-21 photo of clouds from 402 Yorkshire, Lawrence, Kansas  
 at 6:00 P.M.

Lawrence, Douglas Co., Kansas  
~~Lawrence, Kansas~~  
 Sept. 24, 1981

Wind from S, temp 68°F, rain clouds overhead.

checked outward flight of grackles & other blackbirds at Hallmark  
 Roosting Site, (see map Sept. 21, 1981) 2,000,000 birds.

6:57 A.M. .8 Candlepower. 2 grackles left W for residential area.  
 other birds low to middle position in trees (not active and calling  
 in tops of trees as usual).

7:00 A.M. 1.6 Candlepower. Increase in calling of birds.

7:02 A.M. 1.6-3.2 Candlepower. Call increasing. 8 single birds  
 left to W since 6:57 A.M.

7:04 A.M. 3.2 Candlepower.

7:06 A.M. 3.2 to 6.5 Candlepower.

7:07 A.M. 6.5 Candlepower

7:10 A.M. 6.5 Candlepower. many mosquitoes (each morning I  
 have checked Hallmark Roosting Site).

7:12 A.M. 6.5 Candlepower. First group of 12 birds left, then 30  
 sec. later 400 birds (grackles) left to N.W., then reduced numbers  
 left.

7:13 A.M. 6.5 Candlepower main flight, massive and continuous.

7:15 A.M. 8.0 Candlepower

7:18 A.M. 13 Candlepower.

7:20 A.M. 15 Candlepower. end major flight, few stragglers left after  
 massive or main flight.

7:30 A.M. 50 Candlepower. no observable sunrise.

Checked area beneath roosting trees and found:

8 dead grackles.

black feathers covering ground 1/4" apart,

fecal droppings on leaves & ground from 1/2" apart to complete  
 whitewash. Lower branches of trees also covered with the  
 white excrement.

In P.M. collected the following butterflies

810924-1 monarch

810924-7 skipper, checker ♀

810924-2 gossamer

810924-8 skipper, sp. ♂

810924-3 tan skipper

810924-4 " "

810924-5 skipper, checker ♂

810924-6 " " ♀

Lawrence, Douglas Co., Kansas  
~~Lawrence, Douglas Co., Kansas~~  
 Sept. 25, 1981

Rain last days (on and off). Temp. mild, humidity high, like Coastal areas of Texas in winter. Few clouds to E.

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
~~Lawrence, Douglas Co., Kansas~~  
 Sept. 26, 1981

Temp. 70°F, strong wind from S. Observed departure of grackles from Hallmark roosting site (see Sept 2) for map).

6:50 A.M. blue jay calling.

7:01 A.M. first grackles left flying low.

7:02 A.M. beginning of massive episode, continuous flying low and erratic

7:07 A.M. end of massive flight and only a few stragglers beyond end of flight.

This morning with strong wind, birds left in a more compact massive flight. They flew <sup>W</sup> about 2/10 mi. S of our house rather than directly overhead house. There was much confusion with more birds flying in different directions. Also more birds stopped in trees at house and other trees in the residential area. Brilliant red clouds in E at

7:15 A.M.

This afternoon collected the following butterflies:

810926-1 monarch

810926-2 "

810926-3 "

810926-4 "

810926-5 "

810926-6 "

810926-7 moth

monarchs, red-blue spotted and alfalfa butterflies ♂♀ only ones observed this P.M. Other species have decreased in numbers.

Dennis Bailey of 403 Yorkshire Dr. reported a scissor-tailed flycatcher (Sept 25, 1981) in field NE of Kasold-Peterson Roads.

402 Yorkshire Dr., Lawrence, Kansas  
~~Lawrence, Douglas Co., Kansas~~  
 Sept. 27, 1981

Temp. 44, sky almost clear, calm, sky more brilliant in color before birds departed than after departure. Observations from home.

7:00 A.M. 5 robins in yard, no flight of grackles yet.

- 7:02 A.M. 15 grackles flew SE but not from Hallmark site.
- 7:03 A.M. just 8 grackles from Hallmark roosting site.
- 7:05 A.M. 20 birds from NW to SE.
- 7:04 A.M. beginning flight, massive & continuous, from Hallmark site, some dropping off in residential area and others to tree tops near home. There are more grackles in yard at home than I have seen this season. All flight <sup>from</sup> NW.
- 7:09 A.M. end <sup>first</sup> massive flight but started again from Hallmark at 7:11 A.M. There was more movement to SE than the usual NW trend.
- 7:11 A.M. now continuous massive flight from Hallmarks but not as many birds as in last previous 3 days.
- 7:12 A.M. <sup>2nd</sup> major flight stopped.
- 7:13 A.M. beginning of another surge then stopped with only a few stragglers leaving for the next 3 minutes, then at 7:16 birds again leaving Hallmark to NW (meaning from SE to NW) in limited numbers.
- 7:17 A.M. still few birds passing to NW.
- 7:18 A.M. all flight stopped.

I would estimate that this morning there was only 1/20<sup>th</sup> the usual number of birds that have used the Hallmark roosting site. I will check tomorrow morning to see if the Hallmark roosting site has been abandoned.

Collected the following butterflies this afternoon:

- 810927-1 American swallowtail
- 810927-2 monarch
- 810927-3 moth sp.?
- 810927-4 alfalfa butterfly ♀
- 810927-5 violet-tipped angle wing (specimen number 810927-1, duplicated)
- 810927-6 small black & white ( " " 810927-2, " )
- 810927-7 alfalfa butterfly ♀ ( " " 810927-3, " )

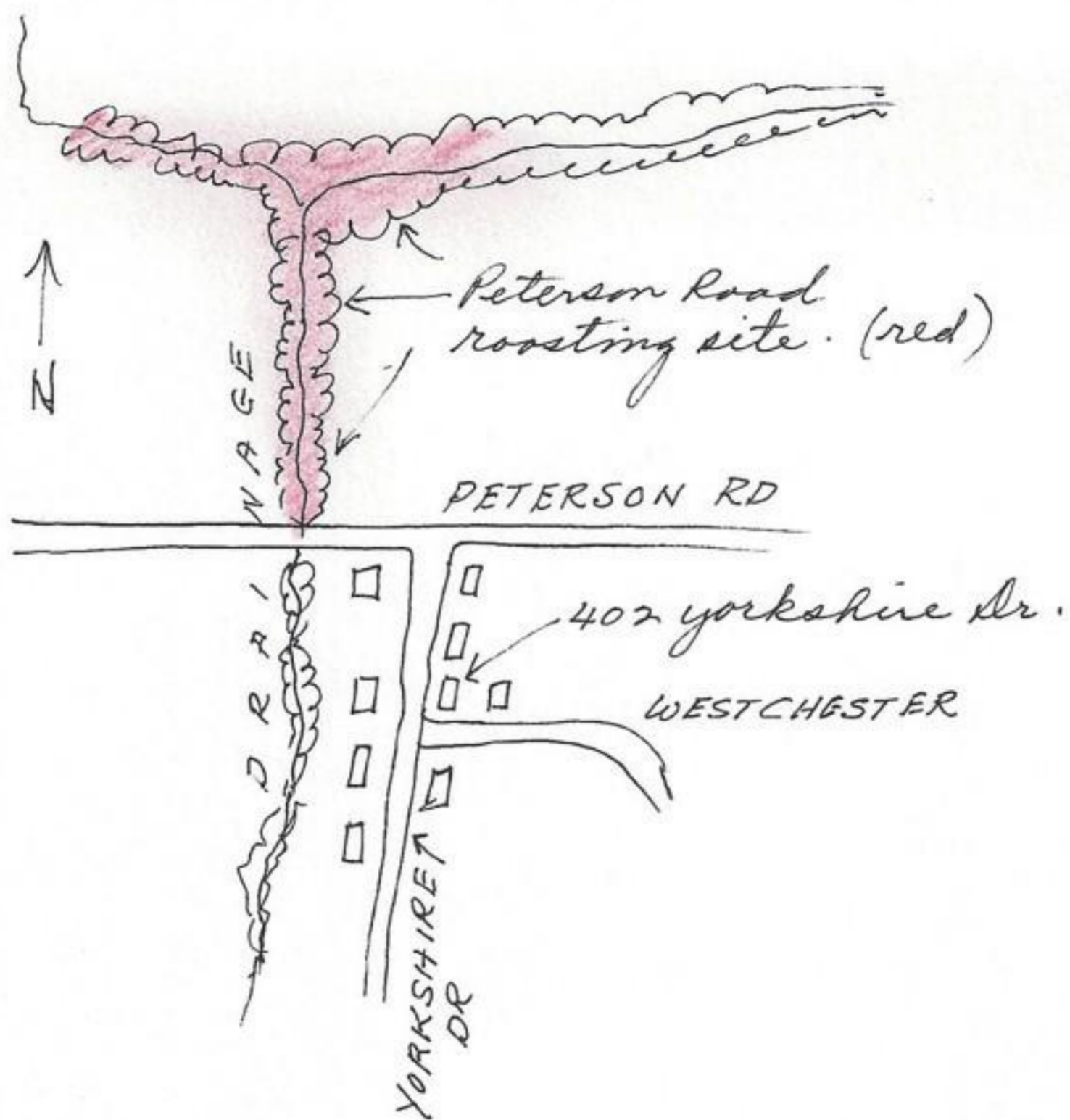
402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
 Sept 28, 1981

There were no grackles or other birds, robins, starlings, redwings etc using Hallmark roosting site last night. It is interesting that the <sup>other</sup> species associated with the grackle flocks act as a community rather than individual species.

Day clear, bright, 70°F and wind from the S.

The Peterson Road roosting site is now activated. This site is in trees along drainage to N of road and is continuous (drainage) to S thru backyards of residences on W side of Yorkshire Dr.





7:02 A.M. grackles calling prior to this time. They left in massive continuous flight until 7:05 A.M. They flew SE & ESE calling. Blue-jays have been in area as families for the last month.

402 Yorkshire Dr., Lawrence, Kansas  
Oct 2, 1981

Collected the following butterflies this A.M.:

- 811002-1 goat weed butterfly *Anaea andria*.  
811002-2 alfalfa butterfly ♂ *Colias eurhytheme*

There has been a decrease in monarch butterflies.

Oct 3, 1981

Collected the following butterflies:

- 811003-1 hop merchant, *Polygonia comma*.  
811003-2 alfalfa butterfly ♀ *Colias alba*.  
811003-3 " " " *Colias eurhytheme*.  
811003-4 ibid " "  
811003-5 ibid " "  
811003-6 spider, tarantula like  
811003-7 Swallow-tailed butterfly.

Oct 4, 1981

Blackbirds at Peterson Road roosting site,

7:08 A.M. 8 birds left prior to 7:08 A.M. at 7:08 A.M. main flight started and lasted to 7:15 A.M. The time interval 7:08-7:15 range in candlepower from 3.2-6.5. 1 to 1 1/2 per cent of birds were robins.

This A.M. collected the following butterflies:

- 811004-1 alfalfa ♀  
81004-2 light tan skipper.

- 811004-3 small black skipper.  
 811004-4 checker spotted skipper ♀  
 811004-5 " " " ♂  
 811004-6 Tarantula-like spider.  
 811004-7 Swallow-tail butterfly

402 Yorkshire Dr., Lawrence, Kansas  
 Oct. 5, 1981

Grackles calling at 6:50 A.M. Rain and lightning to S,  
 massive clouds to E. Storm moving NE. Temp. 70°F.

7:10 A.M. first single bird (Robin) left roosting area.

7:13 A.M. flock 200 left.

7:14 A.M. another flock 200 left as well as smaller groups.  
 Still loud calling from roosting area.

7:16 A.M. major flight and continuous (to SE).

7:18 A.M. nearly all birds have left roosting area.

Collected following butterflies in afternoon:

- 811005-1 Cloudless sulphur. *Phoebis sennae* eubule.  
 811005-2 alfalfa ♀. *Colias eurhytheme*.  
 811005-3 " " " "  
 811005-4 checker spotted skipper ♂  
 811005-5 " " " ♀  
 811005-6 " " " ♀  
 811005-7 " " " ♂  
 811005-8. moth sp. ?  
 811005-9 swallow-tail butterfly  
 Chimney swifts still in area.

Oct. 8, 1981

Collected the following butterflies this A.M.

- 811008-1 monarch  
 811008-2 violet-tipped angle wing  
 811008-3 pointed lady,

P. comma butterfly frequents ground below crab apple tree, many apples on ground. Also at base of 6" diameter willow near open refuse pile. Searches trees & shrubs. Red-spotted blue among trees and fly high across yard. violet-tipped angle wing is like P. comma. violet-tipped angle wing like P. comma inhabits base will near refuse pile in shaded area. monarch frequently searches edge of reflection pond. Swallowtail rare, I have not seen one in the last 2 weeks. Skippers always common.

402 yorkshire dr., Lawrence, Douglas Co., Kansas  
~~my summer home~~  
 Oct. 11, 1981

Collected:

811011-1 Polygonia comma.

Two other P. comma observed today as well as <sup>3</sup> cabbage butterflies.

Grackles and associated species still use Peterson Road roosting site.

Hard maple in SW corner front yard started to change color 5 days ago, now 1/3 colored. Country still green and with some yellow. The Virginia Creeper has been red for at least a month.

Oct. 14, 1981

From 402 yorkshire to 1 mile E witnessed 6,000 Franklin gulls migrate S. They passed S at about 400<sup>+</sup> ft high between 9:20 AM to 9:45 AM at a rate of 2 per second for first & last quarter of flight and 6 per second <sup>for</sup> the middle half of flight.

In afternoon collected the following butterflies:

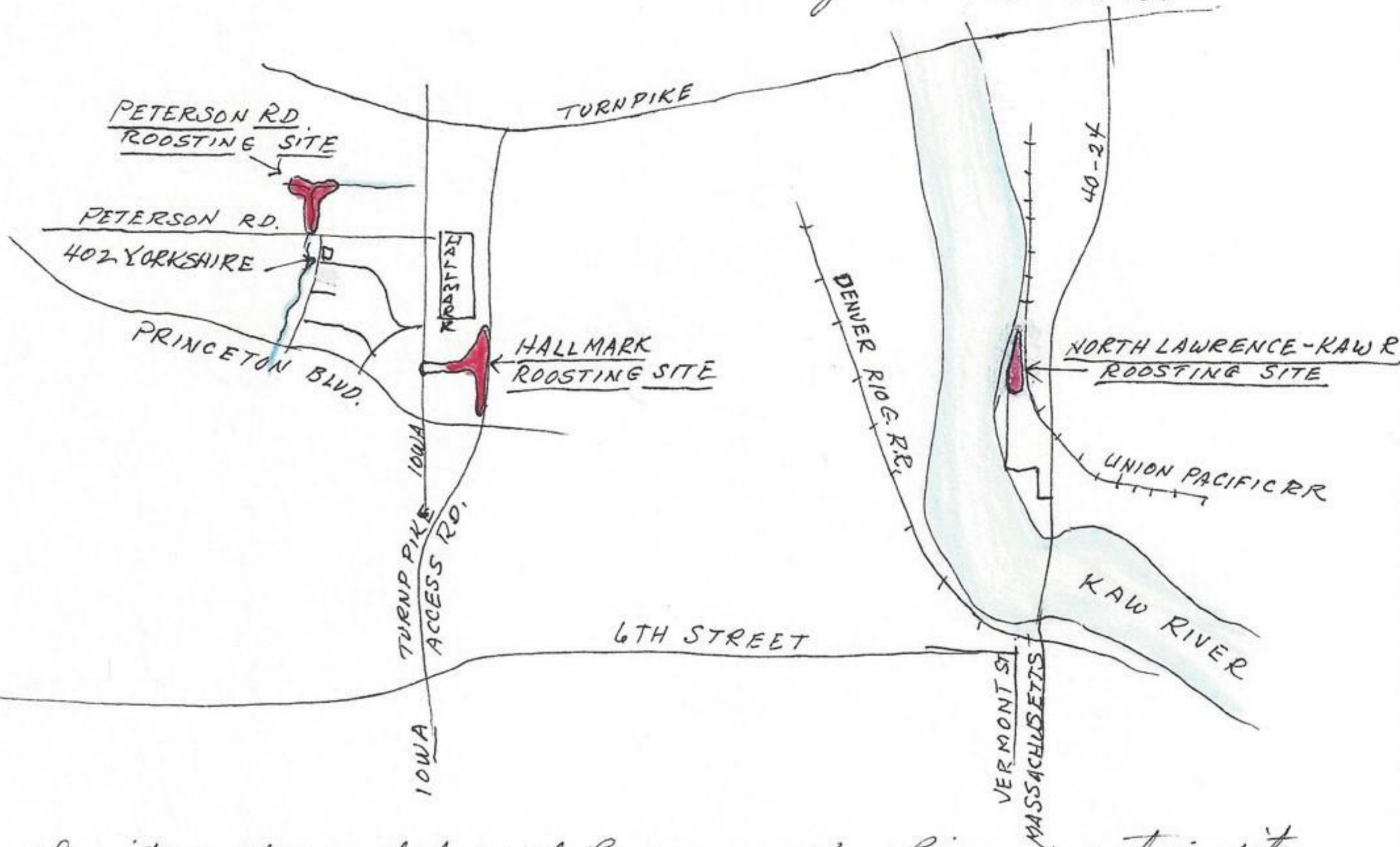
- 811014-1 monarch
- 811014-2 painted lady
- 811014-3 red admiral
- 811014-4 alfalfa
- 811014-5 small moth
- 811014-6 cloudless sulphur
- 811014-7 " "
- 811014-8 " "
- 811014-9 alfalfa
- 811014-10 "
- 811014-11 "

These butterflies appeared for first time in <sup>the last</sup> 2 days (rain) - monarch rare. cloudless sulphur 6 and a decided increase. Checkered skipper most common this season and about 5-8 per most favorable areas of backyard flower bed. Previously they averaged 1 or 2 per sq. yard. No swallowtails. In the last 2 days of rain there has not been butterflies in area.

402 yorkshire dr., Lawrence, Douglas Co., Kansas  
~~my summer home~~  
 Oct. 20, 1981

In the last few days large flocks of grackles & associated species have been flying E over our area to a roosting

in north Lawrence along Kaw River site. This evening observed (6:00 P.M.-6:30 P.M) at least 2 million grackles flying E across our area at 204 Yorkshire Dr. to this site in North Lawrence along the Kaw River.



This site is designated north Lawrence - Kaw River roosting site, will check this area on a later date.

Collected the following butterflies at home (402 Yorkshire).

- 811020-1
- 811020-2 buckeye
- 811020-3 "
- 811020-4 white moth, red in forewing
- 811020-5 moth
- 811020-6 small yellow with black edging.
- 811020-7 alfalfa
- 811020-8 "
- 811020-9 "
- 811020-10 "
- 811020-11 "

Butterflies in good numbers. no swallowtails, 1 monarch, many skippers. Polygonia comma earliest in morning and passing from N to S.

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
in Lawrence, Kansas  
Oct 21, 1981

Temp. 48°F, wind from N. Clouds, <sup>partly</sup> closed cumulus with blue between

Checked grackles at Peterson Road roosting site.

7:15 A.M. Candlelight .4  
 7:20 A.M. " .6  
 7:25 A.M. " 1.2  
 7:30 A.M. " 3.2  
 7:34 A.M. " 6.5 first group left roosting area, flew low and fast, to SE.  
 7:38 A.M. Candlelight 13. first massive wave of about 600,000 birds, then no birds as if they all left at one time.  
 7:43 A.M. Candlelight 13+ Sun behind clouds in E.  
 7:45 A.M. Candlelight 22.

This evening great numbers of starling passed by on their way to north Lawrence - Kaw River roosting site. No birds in Hallmark site.

402 Yorkshire Dr., Lawrence, Douglas Co. Kansas  
 Oct. 22, 1981

Checked grackles in Peterson Road roosting area. Wind from N. Temp, 34°F. Clouds moving N (clouds N, wind <sup>to</sup> S).

7:22 A.M. Candlepower .4  
 7:25 A.M. " 1.2  
 7:30 A.M. " 2.2  
 7:35 A.M. 4.0 first flock 3,000 moving SE.  
 7:38 A.M. candlepower 6.5  
 7:40 A.M. " 6.6 flock 2000 to SE.  
 7:43 A.M. " 1.0  
 7:45 A.M. " 13.0 no massive numbers. There has

been a decrease in numbers of roosting grackles.

There were no birds leaving north Lawrence - Kaw River roosting site this morning & obviously they were displaced last night and they left the site temporarily.

Collected the following butterflies this afternoon:

811022-1	pointed lady	811022-10	skipper
811022-2	alfalfa	811022-11	"
811022-3	"	811022-12	"
811022-4	"	811022-13	"
811022-5	skipper	These were the only kinds	
811022-6	"	observed this date.	
811022-7	"		
811022-8	small black & white		
811022-9	skipper		

402 yorkshire dr., Lawrence, Kansas

Oct 23, 1981

Last night first freeze of year, 26°F. No butterflies today.

Oct 26, 1981

no butterflies since Oct 22, 1981.

Oct 28, 1981

Last 2 days with Cabbage and alfalfa butterflies in numbers equal to pre-freezing period. no other kinds of butterflies.

At 5:00 P.M. - 5:40 P.M. great numbers of grackles and associated species passed 402 yorkshire dr enroute to north Lawrence - Kaw River roosting site. At 5:10 P.M. for 3 minutes approx. 3,000,000 grackles passed by home at a rate of 1,000,000 per minute then flight stopped. Sun at 5:10 P.M. about 10 minutes before sun down. Temp. 60°F, slight wind from S. I have never witnessed such large numbers flying to a roosting site.

Nov 1, 1981

Between 2:50 P.M. and 2:56 P.M. approx 2,000,000 grackles flew w over house in a continuous massive flight like a morning departure from a roosting site. Day cloudy, wind from S, light shower. Destination of grackles as their associated species unknown. As this was pre-evening flight to roost I am wondering if they were in migration.

This afternoon checked our thornless locust tree (approx. 24' high, 20' wide) for numbers of seed pods. There were 4600 on ground, half of them fell today. 1/2 remain on tree bringing total to 7,200 seed pods! This has been the most (and unusual) productive season of any year since the tree was planted.

Nov. 2, 1981

at 5:40 P.M. to 5:51 P.M. approx 1 million grackles and (95%) associated blackbirds and some robins. flew E. over house in massive groups. They flew to north Lawrence - Kaw River Site.

Nov. 5, 1981

First butterflies since Oct. 28, 1981 (3 alfalfa and 1 cabbage butterfly).

Since Nov. 1, 1981 the thornless locust in back yard has shed 3 seed pods. All leaves gone except yellow leaves at end of branches.

The sycamore in neighbors yard to E., leaves started to fall 2 weeks ago and today 1/2 off tree. Outer leaves green, then inwardly brownish, then dead brownish in center of tree.

Willow still green leaves but changing slightly.

<sup>Soft</sup> Maple NE house still green, some yellow & 2/3 on tree. Marginals leaves dead & yellow flowers, mainly seeds but some flowers still in color. These are the flowers that have attracted the butterflies that have been collected.

No ice on pond but ice on n. e. pines.

Not much change in Russian olive trees but can see thru foliage and beyond more clearly.

The 2 sweet gum trees W across street, one maximum yellow, second brilliant red and maximum color today.

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
~~in front of~~ ~~in front of~~ ~~in front of~~  
 Nov. 8, 1981

Have not observed grackles or associated birds in their flocks (robins, cowbirds, redwings, starting) today and presume they have left the Lawrence area. Last ones observed according to notes were observed Nov. 2, 1981.

Nov. 11, 1981

Observed a Polygonia comma & 2 cabbage butterflies today.

Nov. 12, 1981

alfalfa and cabbage butterflies observed 1 per 1/2 hr.

Nov. 19, 1981

First snow of season (slight fall) starting at 11:00 A.M. & continuing all day.

A sharp-shinned hawk hunted in area in high wind (N).

Nov. 20, 1981

Talked with Steve Kanegy over telephone this A.M. He observed 2 bobcats in forest E of Monroe. The first one left at 30' when it saw Steve and the second one remained a few seconds until Steve moved, at which time it left but stayed in area (30').

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
~~in museum~~  
 Dec. 10, 1981

Our cat brought in a *Sigmodon hispidus* that measured  
 223 mm - 89 - 29 - 14 - 72 gms. ♂ testis 5 mm. The field number  
 is 811210-1.

Lawrence, Douglas Co., Kansas  
~~in museum~~  
 Dec. 20, 1981

Audubon Bird Count produced:

32 bold eagles and highest number sighted in any  
 of the local groups of area. The greatest concentration  
 is at Leecompton area.

402 Yorkshire Dr., Lawrence, Kansas  
~~in museum~~  
 Dec. 21, 1981

A Cooper's hawk flew into back yard at 10:05 A.M. in  
 the area where 100-200 English sparrows, starling, and  
 usual winter species of native birds fed from feeders and  
 the ground. The hawk sailed in from the S and  
 crossed the yard. Approx. 200 English sparrows left  
 feeding area and flew into a small pine and in  
 hedge (10' high, 4' wide) along fence on E side Kaufmans  
 yard. The hawk made one attempt but unsuccessful  
 in capturing one of the Eng. sparrows. It then hunted  
 the N side of a hedge running E beyond Kaufmans yard  
 In the meantime all sparrows left area except about 40  
 that remained in hedges. They would take position on  
 opposite side of hedge row from the hawk. The hawk  
 captured one Eng sparrow and at that time the sparrows  
 left in groups of 6-12 and in 4 minutes all sparrows  
 had cleared the area.

Dec. 25, 1981

John Sessford called from Provo this evening.

Dec. 26, 1981

A sharp-shinned hawk flew into the back yard (from S).  
 and displaced all <sup>200</sup> English sparrows, 12 starling, 3 bluejays.  
 Seven English sparrows flew into a 7 high Austrian pine  
 N of yard in Kaufman's back yard. As the hawk pursued  
 the sparrows in the tree, each sparrow left singly, and  
 and at about 62 second intervals.



and at a great speed in erratic flight to points completely out of area. This occurred with the hawk still in pursuit of sparrows in the pine tree. The last sparrow to leave the tree flew to hedge followed by the hawk. The sparrow escaped. The hawk then flew to limb <sup>8' high</sup> in tree 20' from hedge and remained 1 minute, thence to fence at edge of hedge for 2 minutes and then left the area. While in tree establish length of bird as 13". Eye yellow, ♀. Tail slightly rounded when stretched open but square when closed. Temp. 26°F, sky clear.

Dec. 26, 1981

Sharp-shinned hawk sailed into yard from S. at 4:10 P.M. all birds left area. Length 13" (from markers on limb measured later). Tail when perched on limb thus:

Birds at feeder prior to arrival of hawk:

80 English sparrows

6 starling

4 goldfinch

1 downy woodpecker.

2 slate-colored juncos

1 black-capped chickadee

1 white-breasted nuthatch

1 red-headed woodpecker

2 bluejays

1 cardinal.



Dec 27, 1981

On basis of average numbers of species of birds at feeders:

black-capped chickadees (2) 6 times a day

slate-colored juncos (1-2) per day

downy woodpecker (1-4) times per day

white-breasted nuthatch (1) 4 times a day

red-bellied woodpecker (1) every other day

blue jay (1-4) 8 times a day.

cardinal (1-2) daily

no pine siskin so far this year.

no tree sparrows whereas last year 15-20 in area all the time.

goldfinch (8-12) 12 times a day

no white-crowned sparrows

no Harris sparrows

no yellow-shafted flicker.

402 yorkshire dr., Lawrence, Douglas Co., Kansas  
~~no person in~~

Dec. 30, 1981

Named major peak and ridge, <sup>E and</sup> NE of Cheaps Cirque  
on mt. Timpunogoo, Utah Co., Utah.

From Ashley Jensen, <sup>young</sup> daughter of Mr. Don Bee Jensen  
and Christine Jensen. Ashley died just prior to Christmas  
this year in Toro, California. Previously to  
this time the peak was referred to as Stewart's Peak in  
my notes. (see map April 6, 1981 and incorporation of  
new name)

# James Bee: Naturalist

## Peaks, rivers and fields beckon local naturalist

By RON JENSEN  
J-W Staff Writer

James Bee, a retired Kansas University professor of biological sciences and former assistant curator of mammals at KU's Museum of Natural History, says he doesn't like to talk about himself. He is more comfortable discussing his collection of Indian artifacts or his system for filing the many old animal bones he finds along the Kansas River or showing off his mineral display.

While these discussions are impressive and informative, it is the stories of his own experiences that tell most of the tale.

"Practically all of my life I have been observing nature out of doors," he said, admitting to an "indefatigable dedication" to nature.

"I've had a chance to investigate nature all the way from the Arctic to the tropics of Guatemala," he said in a recent interview. "So I have a pretty good basis of appraising any situation."

IN FACT, he has been to Libya, Egypt, Morocco, India, El Salvador, the Virgin Islands (where he used a yacht owned by the Rockefeller family to survey what is now the St. John National Park), China, Burma and on and on.

He has visited all of the provinces in Canada, from Labrador to British Columbia, all of the states, except Hawaii, and has done considerable work in Utah and Mexico.

In 1951 and 1952, Bee spent his summers exploring uncharted regions of northern Alaska.

One of the fringe benefits of being the first person in an area is being able to name unnamed peaks and mountains. A range of mountains in that isolated part of the globe is now called Mary Range, after Bee's daughter. He has named a glacier for his son.

"I have a mountain named for my wife," he said.

While exploring the area with a fellow professor, he encountered grizzly bears receiving their first glimpse of white men.

"They were very curious. They were unafraid. You could walk up to them," he recalled.

AT THE base of one peak he wanted to climb, Bee casually walked through an area where nine of the large beasts were going about the business of searching for prairie dogs and other animals. They paid Bee little attention.

"The had no interest except for being a little curious," he said. "It was such a privilege to observe this stuff uninterrupted and uninterfered with by man."

The same thing was true of the wolves, he said, who would come within 25-feet of the men while they explored, but never bothered them.

Bee also relates a close call he had while exploring a cave in Guatemala.

"I remember once I went into a bat cave. I took one of the local guides with me," he said. "It was supposed to be the longest cave in the world."

After Bee and the guide had traveled several hundred yards into the cave, they entered a large room that had six exits. Bee had forethought enough to sprinkle some oatmeal from his bag at the opening at which they entered the room.

SURE ENOUGH, when the two men returned to the room from their explorations, Bee's guide guessed wrong when trying to find the correct path out of the cave. The oatmeal marker saved them.

"If we had taken the wrong route, we'd have still been there," he said.

That the former professor's life has been a dedication to nature isn't surprising. He points to his early days as a boy in Provo, Utah, when asked how his interest began.

Within walking distance of his back door were snow-capped mountains beckoning to a young boy to come explore them. Bee happily obliged and his interest was nurtured.

One practice he began as a 14-year-old and continues to this day is his daily journals recounting his observations while going "one-on-one" with nature.

"These are all well-documented and organized observations," he said.

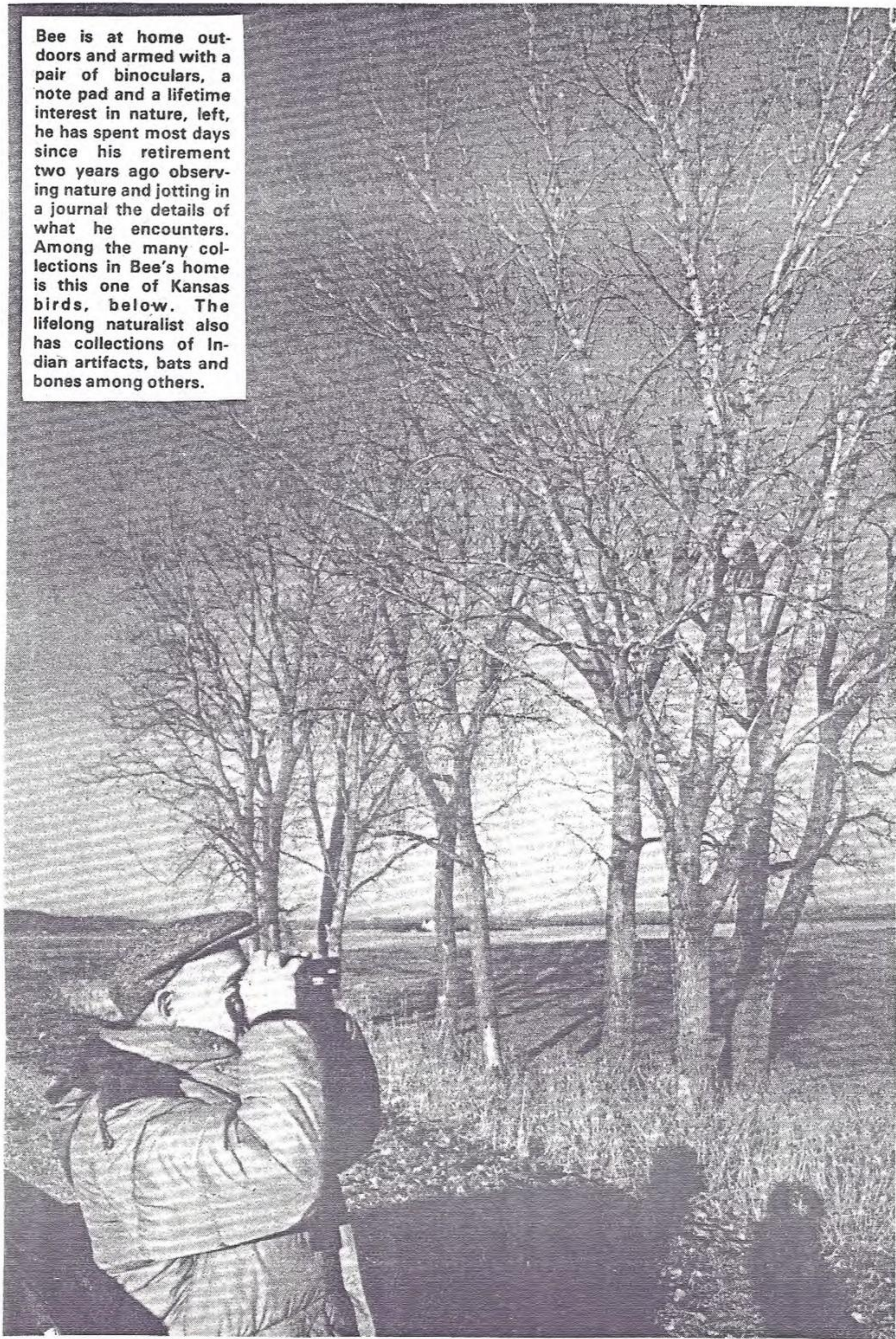
The journals are bound in black covers and written in Bee's hand with an ink that will not fade with the years. They include meticulous detailed accounts, including such information as the type of shrubbery, the lay of the land, the types of birds seen in the trees, the temperature and weather conditions, animal tracks and "practically anything that occurs in nature."

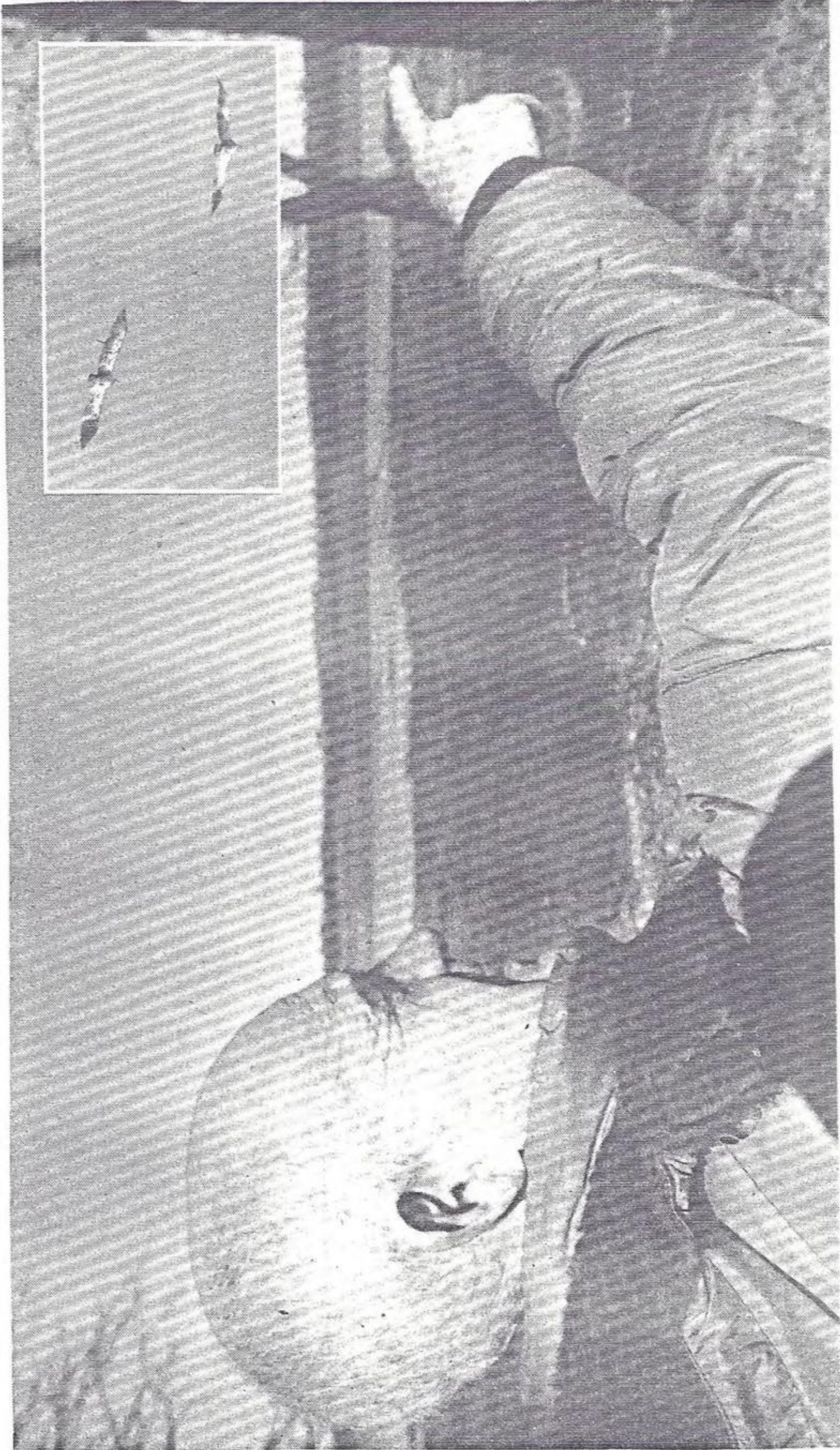
He said his journals will be of great value in 50 years or 100 years and he wants the caretakers of these volumes to have every bit of information at their disposal.

"No one can predict how important some little statement might be," he said.

His journals include a detailed account of

Bee is at home outdoors and armed with a pair of binoculars, a note pad and a lifetime interest in nature, left, he has spent most days since his retirement two years ago observing nature and jotting in a journal the details of what he encounters. Among the many collections in Bee's home is this one of Kansas birds, below. The lifelong naturalist also has collections of Indian artifacts, bats and bones among others.





(Staff photo by Kent Van Hoesen)

A flight of bald eagles near Perry attracts the attention of James Bee, retired professor of biological sciences at Kansas University and former assistant curator at the Museum of Natural History.

bald eagles along the Kaw River, including notes of where they were spotted and their activities while Bee was watching them.

It is one of his desires to have the eight-mile stretch along the river down from Lecompton declared a bald eagle refuge and made "absolutely inviolate to man's trespass."

He said there is good evidence that bald eagles once nested in the Lecompton area and if the area were preserved, Bee believes, the bald eagles might once again return in large numbers to the area.

It is also one of his desires to see a primitive trail 40 miles long preserved along the Wakarusa River. Bee's idea would be to allow no more than two people to traverse the trail each day and access would be allowed only by reservation. This would allow the land to return to the state it was in before white man interfered with the environment.

The garage of Bee's home is being made into a mini-museum of sorts, one that would feature his own collections of bats, arrowheads and other Indian artifacts, copies of petroglyphs, which are drawings carved into rock by ancient civilizations, bones and books, among countless other things that the naturalist has deemed worthwhile.

BEE IS extremely proud of a copy of Ridgeway's Color Key which has never been used. The book was used to identify the colors of birds and Bee said that of the 300 copies published, only his remains unused and the colors still the same bright hues they were when the book was published in 1912.

Bee, who spends time indoors playing classical music on the piano, said he is con-

cerned now with what he calls the "super organism," or the delicate balance of all things in nature, animate and inanimate.

For instance, he said, if you remove the heart from the human body, the entire body is affected and will die.

"It's that same way in the 'super organism,'" he said. "For instance, if you remove the plants from the plant/animal equilibrium, you're going to have death in the community."

He points out the hunting of mountain lions in the Grand Canyon. So extensive were the lions hunted and destroyed, that the deer population, which was hunted by the lions, outgrew its ecosystem and "they died by the thousands."

ALTHOUGH HE retired two years ago, his observations of nature have not. He and his wife Annette plan a trip soon to islands off the Alaskan shore. There he will study the genetics of the mammals that inhabit them, using a sailboat to travel from island to island.

Bee has crossed the globe to observe nature, but there is still much that excites him in the Lawrence area. He has substituted the rivers of Kansas for the mountains of his youth. He said he has "worn out" the local Delaware River, and "the Kaw has as much attraction to me as the Ganges River in India."

"People don't realize what they have around here," he said. "I think you could just set me by an anthill and I could amuse myself for an indefinite and unwearing amount of time."

