JOURNAL 1975

JAMES W. BEE

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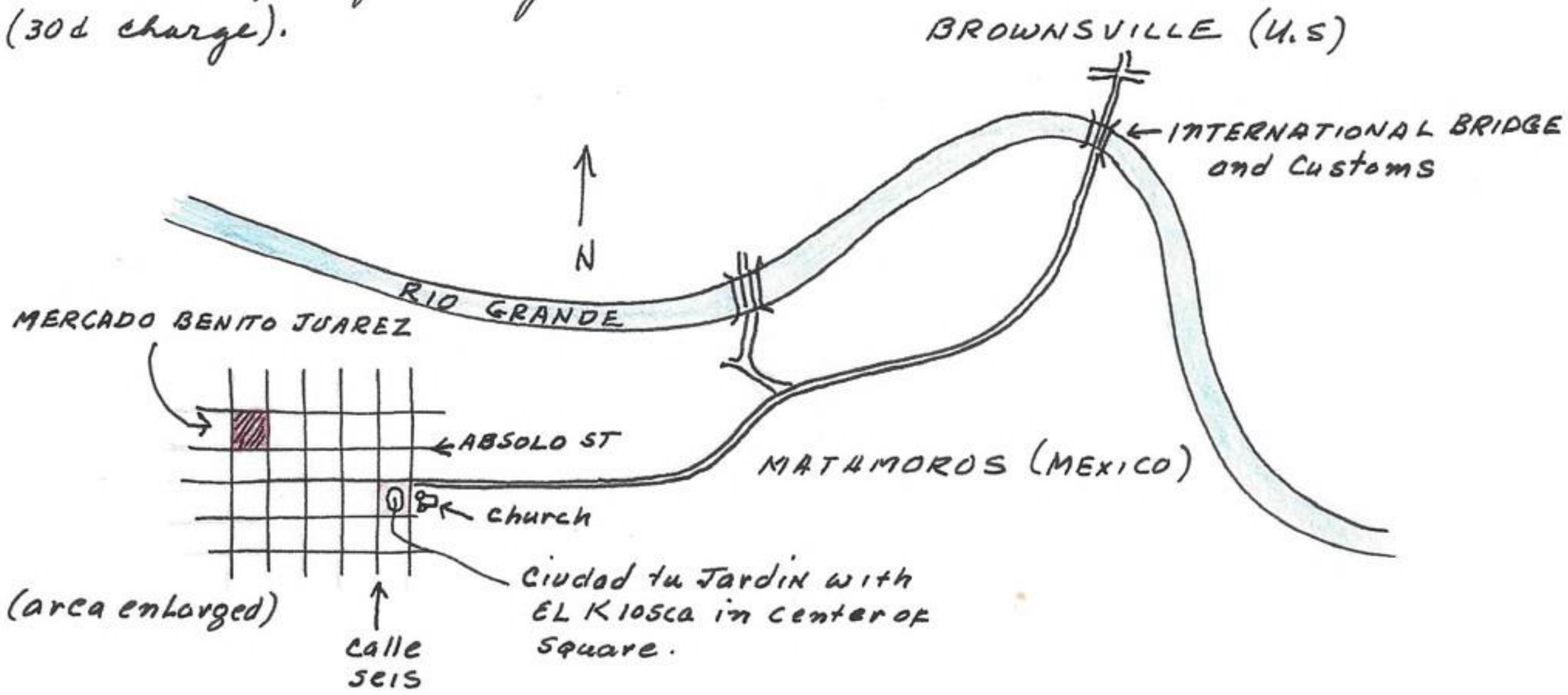
1-75

Brownsville, Texas

Jan. 1, 1975

Returned to Brownsville from camp at Olmita, parked trailer in municipal parking lot and drove car over to matamoras (30¢ charge).



The market of Benito Juarez is approx 2½ mile ~~SWS~~ NSW of the International Bridge and is part of matamoros. It consists of a square city block of inside shops and many adjacent to the market. Returned to Brownsville and prepared to leave for Corpus Christi. Approx 30 mi. were covered in the Brownsville-Matamoras area. Left Brownsville at 12:30 P.m at mileage 96261.2, windy, cool enough for coats 43°F. destination Padre Island SE of Corpus Christi. will return to Kingsville on same route no 77. 96273.1 first sparrow hawk. 89.1 first Harris hawk. 95.3 first redtail. 98.0 9 black vultures and first observed since Brownsville. 96313.3 Harris hawk. 13.4 Redtail. 13.8 Harris hawk 15.3 2 Harris hawks Boat-tailed grackles most common blackbird and in small flocks of 10-40. Two ponds so far and each about 100 ducks, redtail. 16.9 redtail. 17.3 sp hawk and 11 black vultures. 18.1 2 sp hawks, 4 turkey vultures, Harris hawk. 18.6 sp. hawk, Harris hawk. 19.0 Harris hawk, 150 ducks. 19.7 2 Harris hawks. 19.8 redtail. 20.6 sp. hawk, 100 ducks, Harris hawk. 21.4 Harris hawk, sp. hawk, Harris hawk. 22.0 Harris hawk. will not record ducks from here on. There seems to be a relationship of scrubby plant communities, ponds, stabilized sand dunes with the Harris hawks & vultures. The prime consideration seems to be the small scrub trees (live oaks?)

2-75

22.4 2 Harris hawks, 22.7 sparrow hawk and 18 black vultures, Harris hawk, redtail. 23.6 Harris hawk. 24.1 Harris hawk, 2 turkey vultures, sp. hawk, black vulture. 24.6 sparrow hawk. many ducks (300). Harris hawk. 25.8 Harris hawk, Harris hawk, Harris hawk 26.3 Audubon Caracara. 26.5 Harris hawk, redtail, sp. hawk. 26.9 sp. hawk, Harris hawk. 28.9 redtail, kingfisher. 29.8 Harris hawk 30.3 Harris hawk, red-shouldered hawk, Harris hawk. 31.0 ferruginous roughleg?, redtail. 31.4 redtail. 31.8 redtail. 32.6 2 turkey vulture, Harris hawk 33.8 Harris hawk 34.8 Harris hawk, Harris hawk. 35.8 lake with approx 500 ducks including am. egret, snowy egret, kingfisher, coots, pintail, bluewings and other ducks. 35.9 sp. hawk, Harris hawk. 39.0 redtail. 39.5 Armstrong. Harris hawk. 40.1 sp. hawk. 40.9 redtail, 2 turkey vultures, Harris hawk. 43.1 redtail, sparrow hawk, Harris hawk. 45.1 redtail, sparrow hawk. 46.1 Harris hawk. Harris hawk. 47.0 sp. hawk, sparrow hawk, Harris hawk. 48.6 sparrow hawk. 49.4 redtail. 51.3 ~~Mealand (sp.?)~~ misslin, Harris hawk, sp. hawk, Harris hawk.. Lakes in this area are dry but have held water. Those to S are full of water. 53.5 sparrow hawk, Harris hawk. This area is stabilized sands & live oak (sp.?), Harris hawk, redtail, Harris. 55.0 sp. hawk, redtail, Harris hawk, sparrow hawk. 55.6 redtail. 55.9 2 sparrow hawks. 56.5 redtail. 56.9 2 sparrow hawks. 57.3 redtail. 57.9 redtail. sparrow hawk. 59.7 ~~Sarita~~ Sarita. 60.4 redtail. 61.5 Harris hawk. 62.1 redtail. 62.7 2 sp. hawks. 62.8 turkey vulture. 63.1 2 Harris hawks. 63.8 Harris hawk. 65.2 Riviera at 3:55 P.M. 66.5 sp. hawk. 67.6 sparrow hawk. 67.8 sparrow hawk. 69.1 redtail, sp. hawk. 70.3 sparrow hawk. 72.2 sp. hawk. 75.2 Harris hawk. 75.6 junction 77 Business and regular route by-pass (Kingsville) at 4:06 P.M. 81.3 sparrow hawk. 83.3 redtail 85.1 Harris hawk. 92.4 redtail. 96 402.7 Cetronila. 06.1 sparrow hawk. 14.6 junction 43 & 286 and now to S. 2 killdeer. 21.7 end of freeway in Corpus Christi at 5:15, temp 48° F. 24.6 beginning of causeway at 5:20 P.M. Continued W on Padre Island to Padre Island National Seashore and Continued W to point where road turns obligatorily to beach at mileage 96 449.4 (farthest point on beach we travelled) at 6:00 P.M. Noted approx 12 camps spaced about 1/10 mile apart. My recommendations for this island would be 1) to prohibit vehicle traffic on any part of beach 2) all roads & camps on lee side of sand dunes 3) every other 5 miles of beach held inviolate to trespass 4) navigation of sand dune area by trail only 5) keep swimming public area outside of park. 6) no fishing 7) no lights.

3-75

Returned to public swimming area and camped there. Birds in area were sanderling (4 per 1/10 mi), willet (1 per 1/2 mi), blackbellied plover (1 per 2/10 mi), golden plover (1 per 2/10 mi), Forster tern (1 per 2/10 mi) great blue heron (1 per 3/4 mi), laughing gull (1 per 1/2 mi), cormorant (1 passed by) ruddy turnstone (1 per 2 miles), killdeer (1 per 2/10 mi), marsh hawk (in dunes)

Padre Island national Seashore, SW Corpus Christi, Texas.
(Malaquite Beach) Jan 2, 1975

Left at mileage (8:45 A.m) 96451.4. Min temp 49°F last night. Cold wind on beach. In ponds and lakes on lee side of dunes were many ducks 18 snow geese, 4 white pelicans, horned larks, avocet Swallows. meadowlarks, Curlew's great blue heron, forster tern?, marsh hawk, few mosquitos, marsh sparrow of some kind. most sand dunes have a rounded profile except those that are active and then the profile is irregular. In flat areas the dunes are regularly placed (about every 50' and average 3 feet high). Gopher digging all along roadway and in other sandy areas. 456.2 leaving Padre Island national Seashore boundary. Shrike The green plants are a vinelike plants that grows on sand and a plant that looks like a morning glory with yellow flowers. All the rest is a reddish-brown of grasses etc. 81.2 have seen 2 Sparrow hawks only 74.0 and 78.0 on mustang island. 84.6 ferry at Port Aransas. At least 12 porpoises in bay and attracted to ferries. Laughing gull, ring-billed gull common. Cormorants (10) in same area as porpoise. Continued over ferry, visited Aransas Pass and continued E. At 96.2 observed first black vultures (5 blocks), Have not seen large raptors along coast so far. mockingbird. 96511.1 Lamar (10:45) just beyond bridge where boat is anchored for whooping Crane excursion but not operating today. Continued E on highway 35. 29.3 black vulture. 39.5 turnoff to refuge. From Lamar have seen about 20 flocks of boat-tail, common grackles etc averaging 50 birds per flock (10-500). At above turnoff approx 400 in one flock. These birds are most commonly observed on the pavement of the highway and not in fields. 4 sparrow hawks 500.0-10.2-35.0 40.0 so far. 96540 Aransas Refuge gates.- Registered at headquarters. and then drove to the Observation tower E of mustang Lake (Big Tree area). From here could see 2 adult whooping cranes to the west. They spent most of their time feeding in the center of a small lake beyond the main lake. This is the only birds in this particular area. Other birds observed here were: 1 wilson snipe feeding on exposed flat; 13 roseate spoonbills, 4 great blue heron, 18 gadwal ducks, 35 red-breasted mergansers, 65 white pelicans,

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32 snow geese, 8 am. egret, 13 snowy egret, 2 pied-billed grebe, 5 ring-billed gulls, 4 cormorants, ducks too far for positive ident, 6 black vultures 543.0, 2 turkey vultures 543.0, killdeer. This list could have been enlarged with more time to spend and better atmospheric conditions. From observation tower continued on one-way road back to headquarters. This inland area is characterized by ponds and lakes, native reddish-brown grasses, sedges, cattails separated or formed by stabilized sand dunes now covered with good stands of live oak and blackjack oak. Redbud is also mixed with oaks. The general picture is one of marshland with limited dry areas. Observed 18 white tail deer mainly at edge of marsh & trees. Mustang grapes help seal the dry forested areas. One of the obvious observations was the lack of marsh birds. Am Coot were the only birds in lakes & ponds – there being no herons, egrets, ducks etc and to this extent it seemed unnatural. Near headquarters there were 22 black and 6 turkey vultures in trees nearby.
Left at 96558. at 1:10 P.M. There were no redtails or other raptors up to Victoria. 96601.3 left Victoria at 3:10 P.M. 05.6 sp. hawk. 09.1 marsh hawk, sp. hawk. 09.6 sparrow hawk. 10.2 sp. hawk. 11.3 sp. hawk. 11.9 6 black vultures, sparrow h. 13.4 sp. hawk. 15.4 2 sparrow hawks, marsh hawk 17.4 2 crows. 18.8 crow. 20.0 redtail. 22.9 red-bellied hawk. 26.3 Brushy Creek. Tree all have green leaves but some oaks have dead leaves remaining. 27.7 intersection with 111 highway. 33.4 sp. hawk. 34.9 redtail. 36.7 crow. 39.3 2 crows. 39.6 sp. hawk. 42.0 2 crows. 43.0 sp. hawk, crow. 47.5 7 crows, sp. hawk. 53.1 sp. hawk. 54.1 crow. 54.5 red-shouldered hawk, sp. hawk. Shrikes are about as common as sparrow hawks or slightly more numerous. 57.4 Navidad River. 59.6 Sparrow hawk. 59.8 sp. hawk. 61.9 Schulenberg at 4:30 P.M. 65.5 redtail 67.7 2 sp. hawk 73.2 2 Crows. 73.6 sparrow hawk. 77.3 Colorado River (all on highway 77). 78.2 La Grange 4:55 P.M. temp. 49°F. Just N of La Grange are good stands of pine. Robins (common) are associated with the pines. Sky now from formed overcast to solid overcast to N. 96692.4 raining & light fading as end of census. Temp. 46°F. Arrived Waco at 96799 at 7:30 P.M. Continued N thru Dallas on 35. Fort Worth is much easier to get thru than Dallas. Continued N on 35E to Dallas Lake in the Denton area arriving at 96920.0 at 10:00 P.M. This camp is just off the main highway and at edge of lake; a good place to stop enroute N or S. Travelling at night I am impressed with the continuous line of lights of rural areas across Texas.

Dallas Lake, Texas

Jan 3, 1974

min. temp last night 32°F, frost on ground. Sky clear to N and storm mass to S and moving rapidly to the E. Juncos & tree sparrows here. Left 8:00 A.M. Ponds open. 33.2 redtail. 45.0 sp. hawk. 48.2 sp. hawk. 57.2 sp. hawk. 68.0 Red River 68.1 Oklahoma line. 70.0 Crow. 70.9 68 Crow in one field. 72.1 sparrow hawk, redtail. 73.7 2 crows. 74.6 Crow. 79.1 sp. hawk. 84.1 redtail, sp. hawk. 84.7 redtail. 85.9 redtail. 87.2 crow. 88.4 5 crows, redtail Oswald Rd. 89.6 3 crows. 90.1 Hickory Creek, redtail. 92.0 2 crows. 92.8 redtail. 93.2 am. roughleg 95.3 redtail, roughleg. 98.3 crow. 98.8 Ardmore (2nd exit) 97 0 03.7 am. roughleg. 04.9 redtail, roughleg 05.8 redtail. 06.3 am roughleg. 09.4 2 redtails 10.0 am roughleg. 10.3 am. roughleg. 10.6 redtail. 12.1 crow. 14.6 am roughleg. 16.8 roughleg. 24.1 roughleg. 24.5 redtail. 26.7 redtail, crow. 29.0 Coopers hawk. 32.2 3 crows. 33.2 2 crows, redtail. 37.6 redtail road kill. 38.1 2 am roughleg. 38.9 am roughleg. 39.5 2 crows. 39.7 redtail. 40.6 redtail. 41.1 am roughleg. 43.0 redtail. 43.9 am roughleg. 45.7 Washita River, am roughleg (at highway mileage post 76). 46.9 sp. hawk. 50.1 roughleg. 51.1 roughleg. 53.3 redtail. 55.7 redtail. 57.6 redtail, 2 crows, redtail. 61.2 sp. hawk. 68.5 redtail. 72.8 redtail. 73.6 redtail. 76.4 S. Canadian River, Cleveland Co. line. 80.8 sp. hawk. 81.1 am roughleg. 81.5 roughleg. 81.9 2 am roughleg. This is along a busy thorofare between Norman & Moore to N. 82.9 am. roughleg. 89.5 Oklahoma Co. line. 95.1 N. Canadian River. 97 101.0 sparrow hawk. Left outskirts Oklahoma City at 1:00 P.M 04.5 Harrison Creek, crow. 04.9 sp. hawk. 05.9 Crow. 07.9 redtail. 09.1 snow in protected places in trees and first observed since leaving Lawrence on trip. 12.5 redtail. 14.4 redtail. All hawks with back to sun & facing wind. 16.9 redtail, crow. 17.7 5 crows 18.1 redtail. 19.4 redtail. 20.3 5 crows. 22.3 am. roughleg. 28.1 am roughleg. 28.6 redtail. 30.9 2 crows. 31.7 redtail. 33.2 sp. hawk. 33.3 Cimarroon River. Snow on sandbars. 33.5 Payne Co line. 35.4 am roughleg. 36.5 redtail. 36.8 am roughleg. 37.6 redtail, crow. 40.9 2 crows. 41.3 young coyote ~~of~~ on slope of road right-of-way and not afraid of passing cars. 43.8 am roughleg. 44.2 redtail, 44.8 redtail. 46.4 crow. There is a gradual increase in amount of snow and now on slopes not protected by exposure or trees. 47.7 redtail. Sky now absolutely clear & temp around freezing. 48.7 sp. hawk. 50.9 redtail. 51.8 sp. hawk. 51.9 redtail, crow. 53.5 redtail. 55.4 redtail. 55.7 redtail, sparrow hawk. 58.3 Black Bear Cr.

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sparrow hawk. 59.0 redtail. 59.5 2 redtails. 60.2 redtail. 61.0 marsh hawk at Enid turnoff. 61.0 redtail. 62.4 redtail, sp. hawk. 63.4 redtail. 63.8 redtail. 64.5 2 redtails, 67.2 sp hawk. 68.7 redtail. 69.1 redtail. 70.2 am roughleg. 70.3 redtail. 70.6 redtail, marsh hawk. 74.1 redtail Caught mouse on road right-of-way, sparrow hawk. 74.9 redtail, Kay Co. line. 2:20 P.M. 75.5 am roughleg. 77.1 redtail. 78.2 redtail. 78.5 Am roughleg. 80.5 South Fork of Arkansas River. 83.2 redtail. 86.5 redtail. 86.8 redtail. Snow now completely covering ground up to road. 88.8 redtail. 91.0 redtail. 91.3 redtail. 91.9 redtail. 93.6 sp hawk. 94.1 Am roughleg 95.2 redtail. 95.8 redtail. 96.3 Chikaskia River 98.1 Redtail. Snow deposited yesterday morning and is approx. 3" in depth. 99.5 redtail. 99.9 am roughleg. 97 2024 redtail (Kansas border) 02.7 redtail. 03.9 redtail. 04.3 am roughleg 05.7 am roughleg. 09.2 marsh hawk. 12.3 redtail. 12.8 redtail. 13.4 redtail. 15.5 redtail. 15.9 am roughleg. 16.8 marsh hawk. 17.4 am roughleg, redtail at road side mileage 15. 18.7 Crow. 19.5 redtail. 97221.7 turnpike entrance in Kansas. 23.9 sp. hawk. 25.4 sp. hawk. 27.1 Overpass railroad, Crow. 28.8 redtail. 31.0 sparrow hawk, redtail. 37.5 Crow. 38.8 Crow. 46.3 Arkansas River. Lakes & ponds frozen 54.3 redtail. 55.7 sp. hawk. 59.8 redtail. 61.2 redtail. 63.7 redtail. 64.4 redtail. 65.1 redtail. 66.6 sparrow hawk. 68.6 redtail. 71.6 redtail. 72.4 marsh hawk 75.4 redtail. 81.9 redtail. 839 redtail 84.0 redtail. 97290.3 sun touching horizon at 5:15 P.M. 91.8 redtail + End of census at 5:20 P.M. 93.4 Cassady exit. 98.2 Matfield Green turnpike Service area, at 5:25 P.M.

Continued on turnpike to Lawrence with clear cold skies arriving in Lawrence at mileage 97401.9 at 7:30 P.M. having travelled 1170.4 miles from Brownsville, Texas or 2230 miles for the entire trip. On the return trip the gas consumption was 157.7 gals at $86.92 or 7.4 miles per gallon which is exactly the same factor as was the trip down to Brownsville.

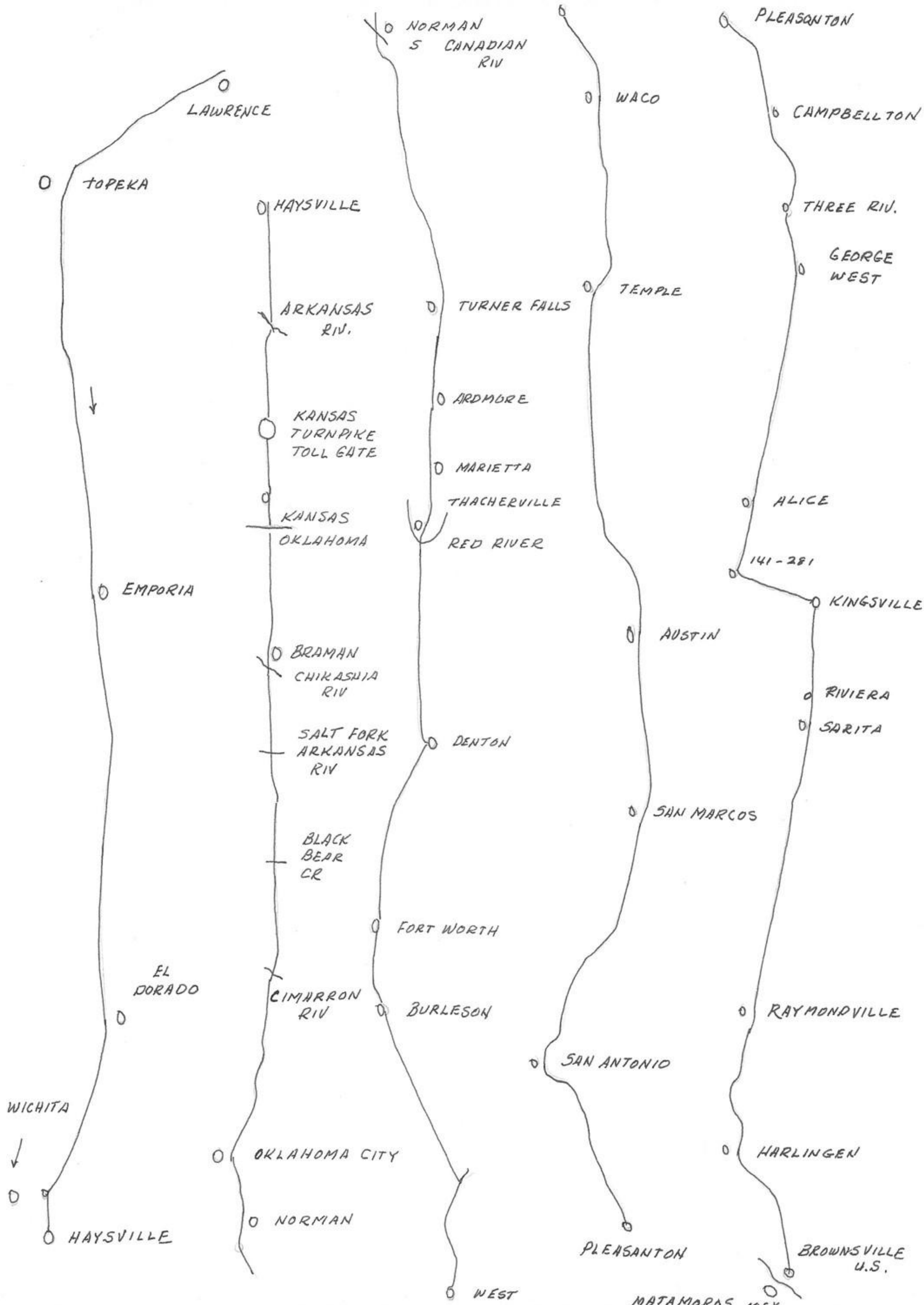
For future censuses would recommend accountability of all segments of route including cities, indicating city limits for large cities and centers of small towns. These censuses should include periodic weather, temperature, time and activity of birds to correlate with temp, weather etc.

The weather on coast area was disagreeable and cold and one takes a change this time of year with the weather. It is not always warm and sunny.

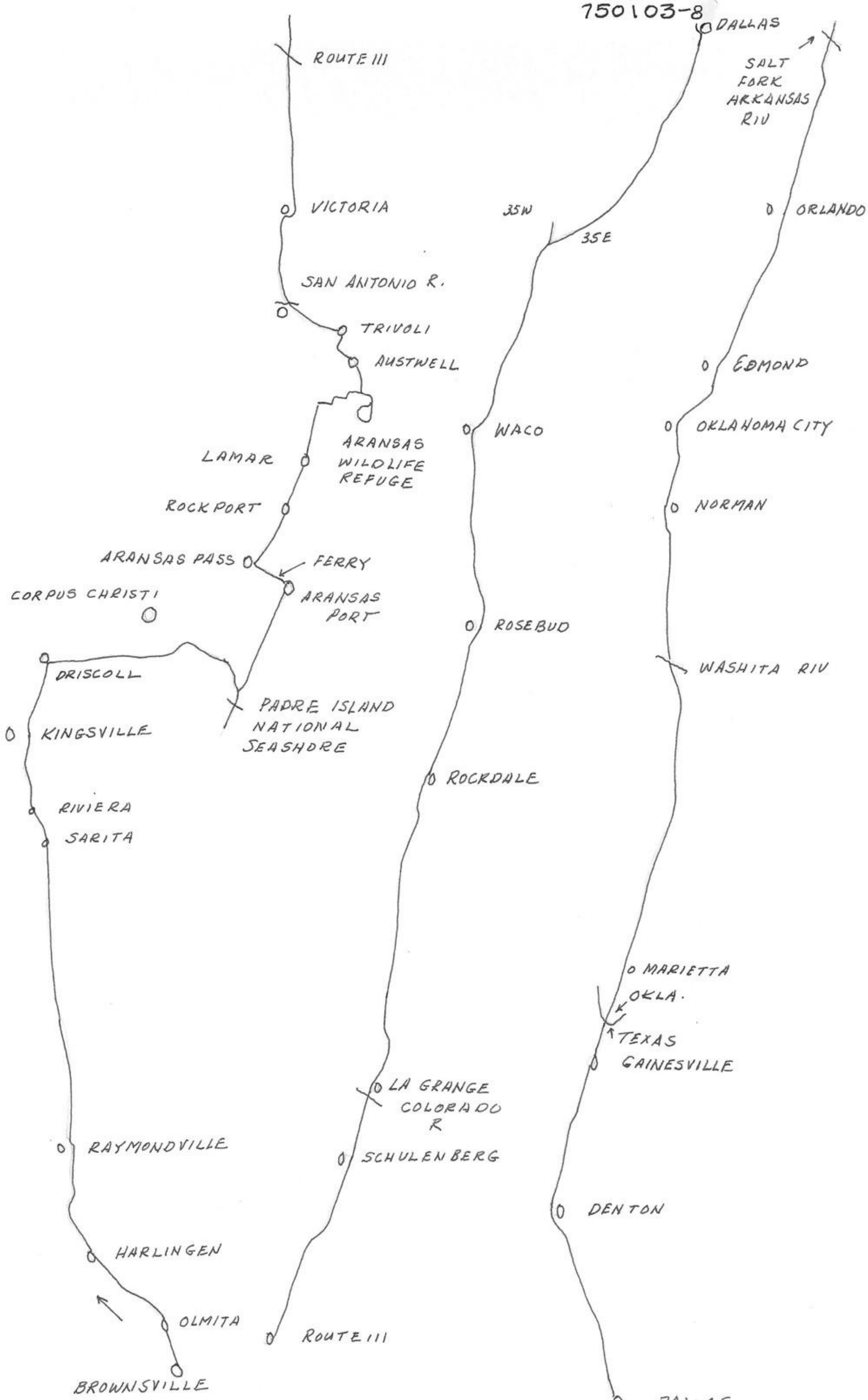
The following pages are routes travelled with most of the areas mentioned in the journal recorded.

750103-7

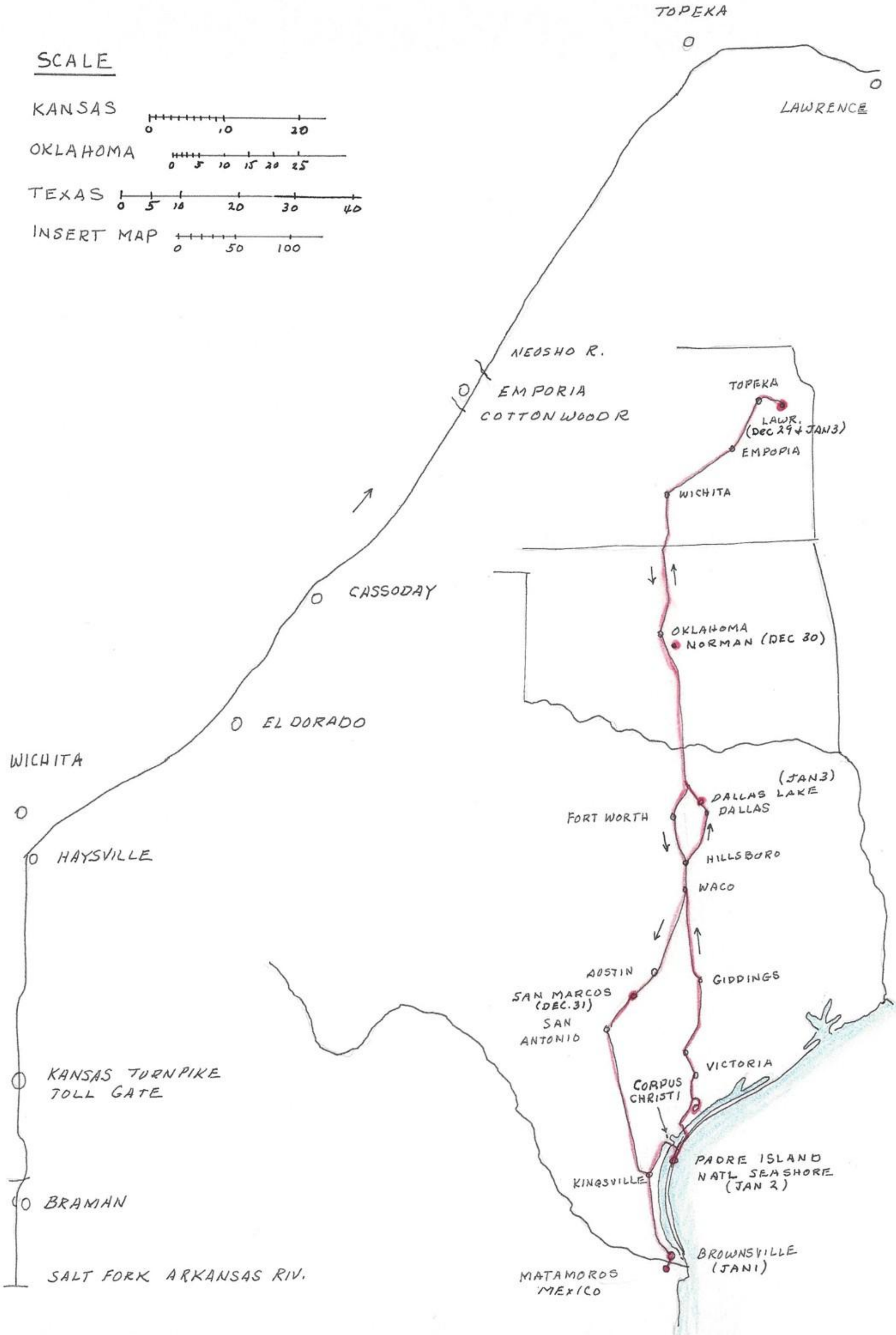
ROUTE LAWRENCE-MATAMOROS AND RETURN
DEC 29 - JAN 3.



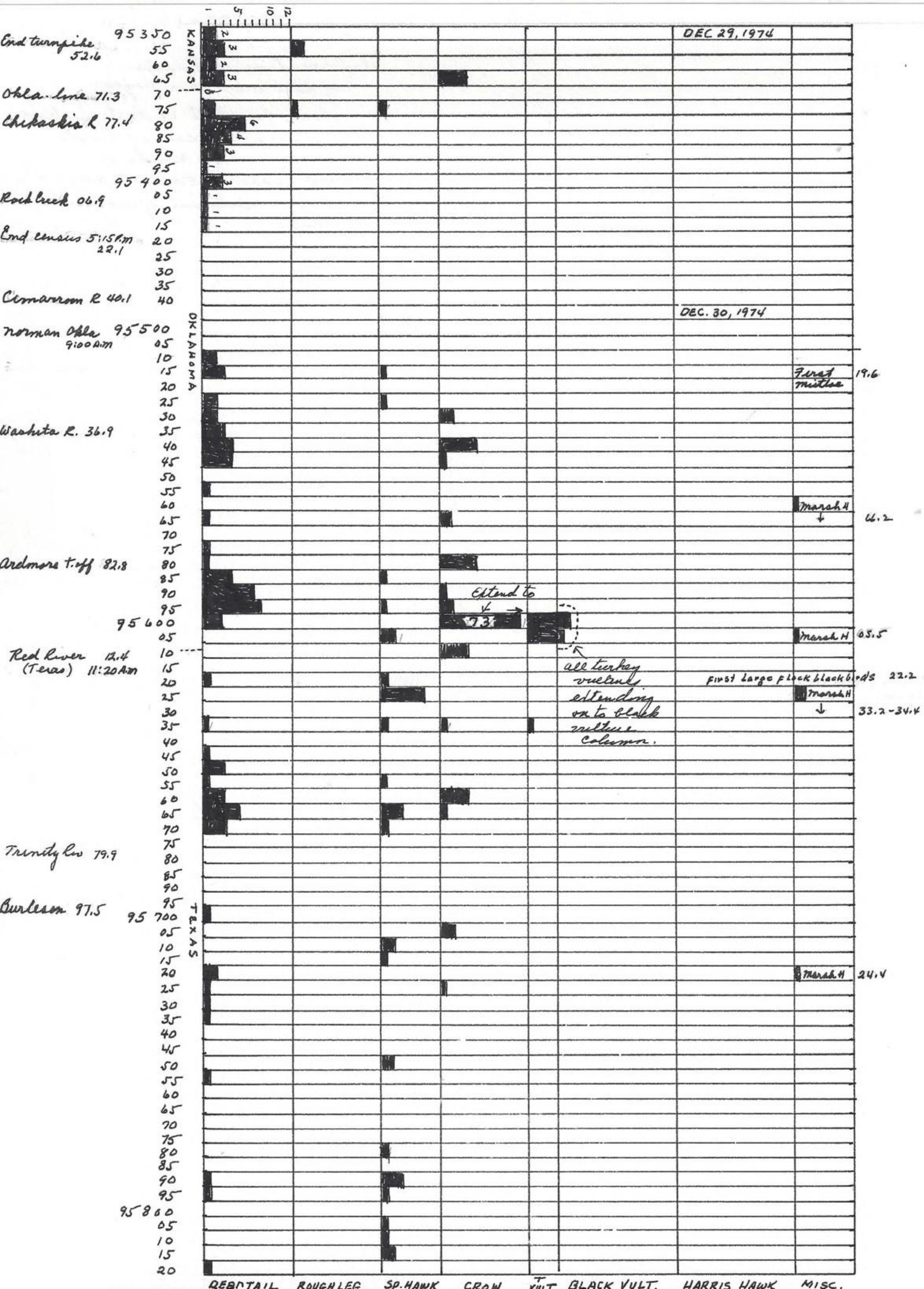
750103-8


DALLAS
ROUTE 111
SALT FORK ARKANSAS RIV
VICTORIA
35W
35E
ORLANDO
SAN ANTONIO R.
TRIVOLI
AUSTWELL
EDMOND
WACO
OKLAHOMA CITY
ARANSAS WILDLIFE REFUGE
LAMAR
ROCKPORT
NORMAN
ARANSAS PASS
FERRY
ARANSAS PORT
CORPUS CHRISTI
ROSEBUD
WASHITA RIV
DRISCOLL
PADRE ISLAND NATIONAL SEASHORE
KINGSVILLE
ROCKDALE
RIVIERA
SARITA
MARIETTA
OKLA.
TEXAS
GAINESVILLE
LA GRANGE
COLORADO R
RAYMONDVILLE
SCHULENBERG
DENTON
HARLINGEN
OLMITA
ROUTE 111
BROWNSVILLE
DALLAS

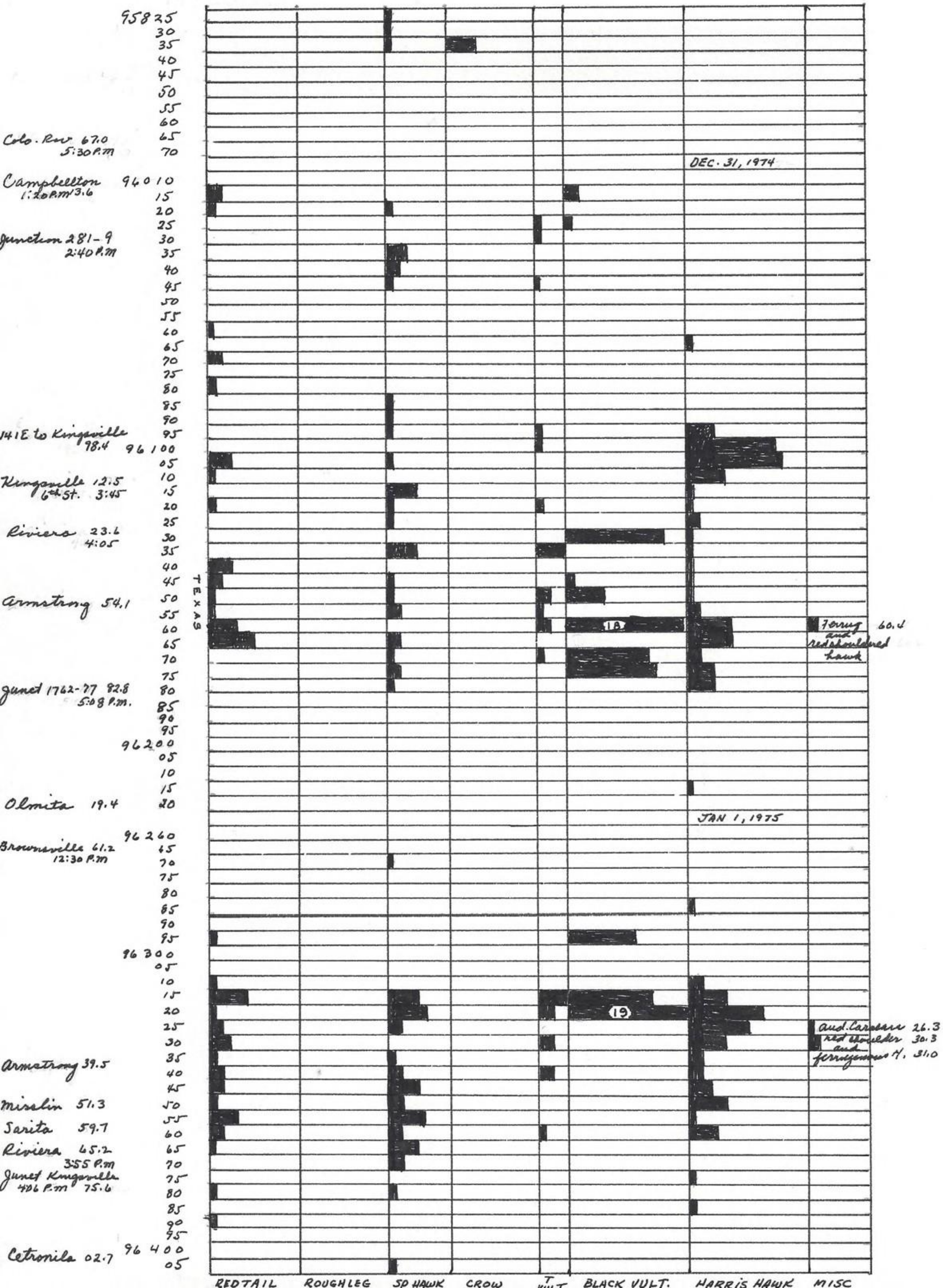
9-75


SCALE
KANSAS 0 10 20
OKLAHOMA 0 5 10 15 20 25
TEXAS 0 5 10 20 30 40
INSERT MAP 0 50 100
TOPEKA
LAWRENCE
NEOSHO R.
EMPORIA
COTTONWOOD R
CASSODAY
EL DORADO
WICHITA
HAYSVILLE
KANSAS TURNPIKE TOLL GATE
BRAMAN
SALT FORK ARKANSAS RIV.
TOPEKA
LAWR. (DEC 29 + JAN 3)
EMPORIA
WICHITA
OKLAHOMA
NORMAN (DEC 30)
(JAN 3)
DALLAS LAKE
DALLAS
FORT WORTH
HILLSBORO
WACO
AUSTIN
GIDDINGS
SAN MARCOS (DEC. 31)
SAN ANTONIO
VICTORIA
CORPUS CHRISTI
PADRE ISLAND NATL SEASHORE (JAN 2)
KINGSVILLE
BROWNSVILLE (JAN 1)
MATAMOROS MEXICO

Information on backs
of the next four pages
which consist of distribution
of several species of birds
observed along route on
map. page 750103-9 preceed-
ing. Interval of distance is
5 miles.


1 5 10 12
KANSAS
OKLAHOMA
TEXAS
End turnpike 52.6
Okla. line 71.3
Chikaskia R 77.4
Rock Creek 06.9
End census 5:15 P.M 22.1
Cimarron R 40.1
Norman Okla 9:00 A.M
Washita R. 36.9
Ardmore Tollf 82.8
Red River (Texas) 11:20 A.M
Trinity Riv 79.9
Burleson 97.5
DEC 29, 1974
DEC. 30, 1974
First mistle
19.6
Marsh H
66.2
Extend to
73
Marsh H
05.5
all turkey vulture extending on to black vulture column.
First large flock blackbirds 22.2
Marsh H
33.2-34.4
Marsh H
24.4
REDTAIL
ROUGH LEG
SP. HAWK
CROW
TURK VULT
BLACK VULT.
HARRIS HAWK
MISC.

10-75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DEC. 31, 1974
Campbellton 96010
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Junction 281-9
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SP HAWK
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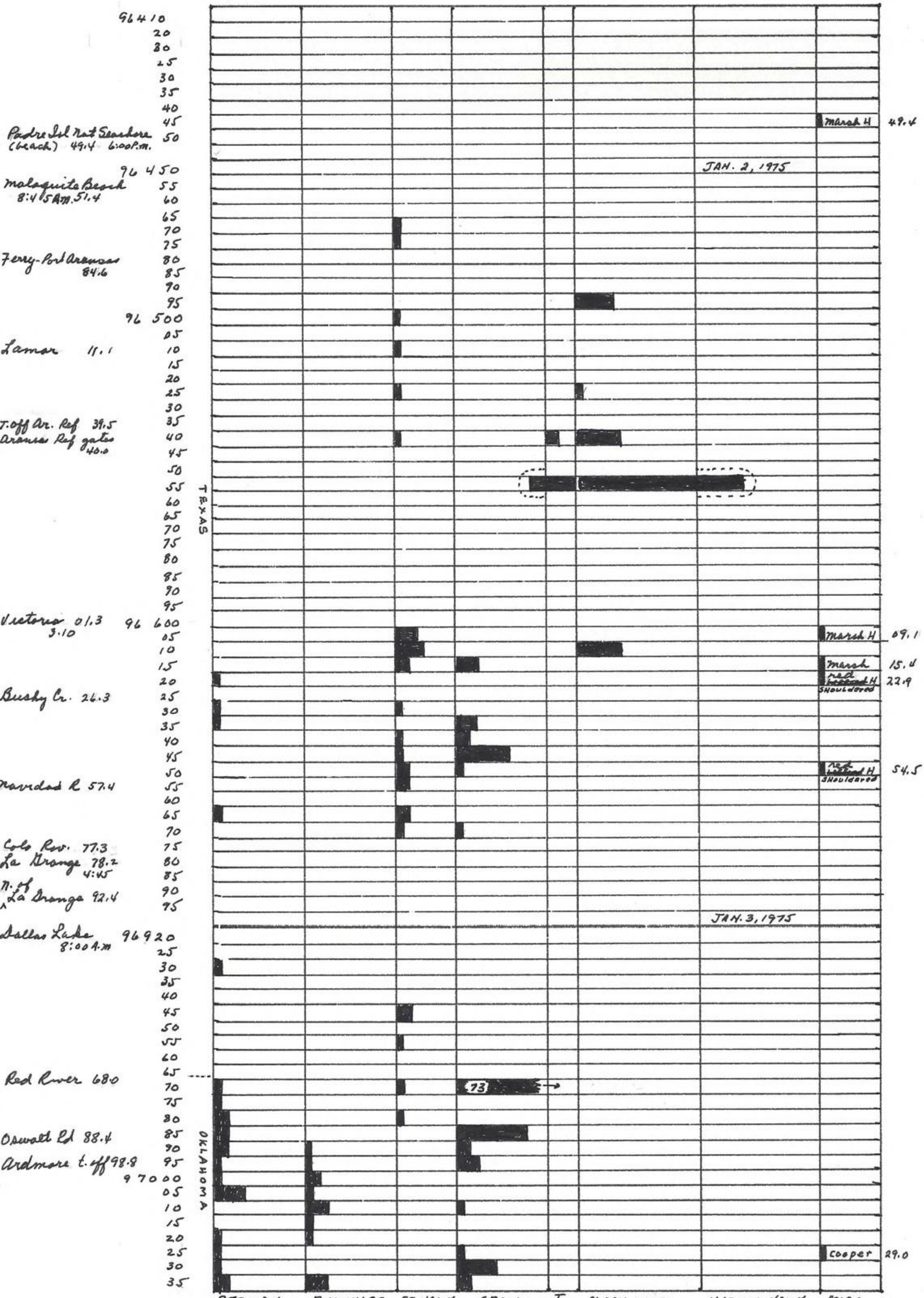
T. VULT.
BLACK VULT.
HARRIS HAWK
MISC

11-75


96410
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Padre Isl Nat Seashore (beach) 49.4 6:00P.M.
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96450
Malaquite Beach 8:45AM. 51.4
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Colo Riv. 77.3
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Dallas Lake 8:00A.M
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Red River 68.0
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Oswalt Rd 88.4
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TEXAS
OKLAHOMA
JAN. 2, 1975
March H 49.4
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March 15.4
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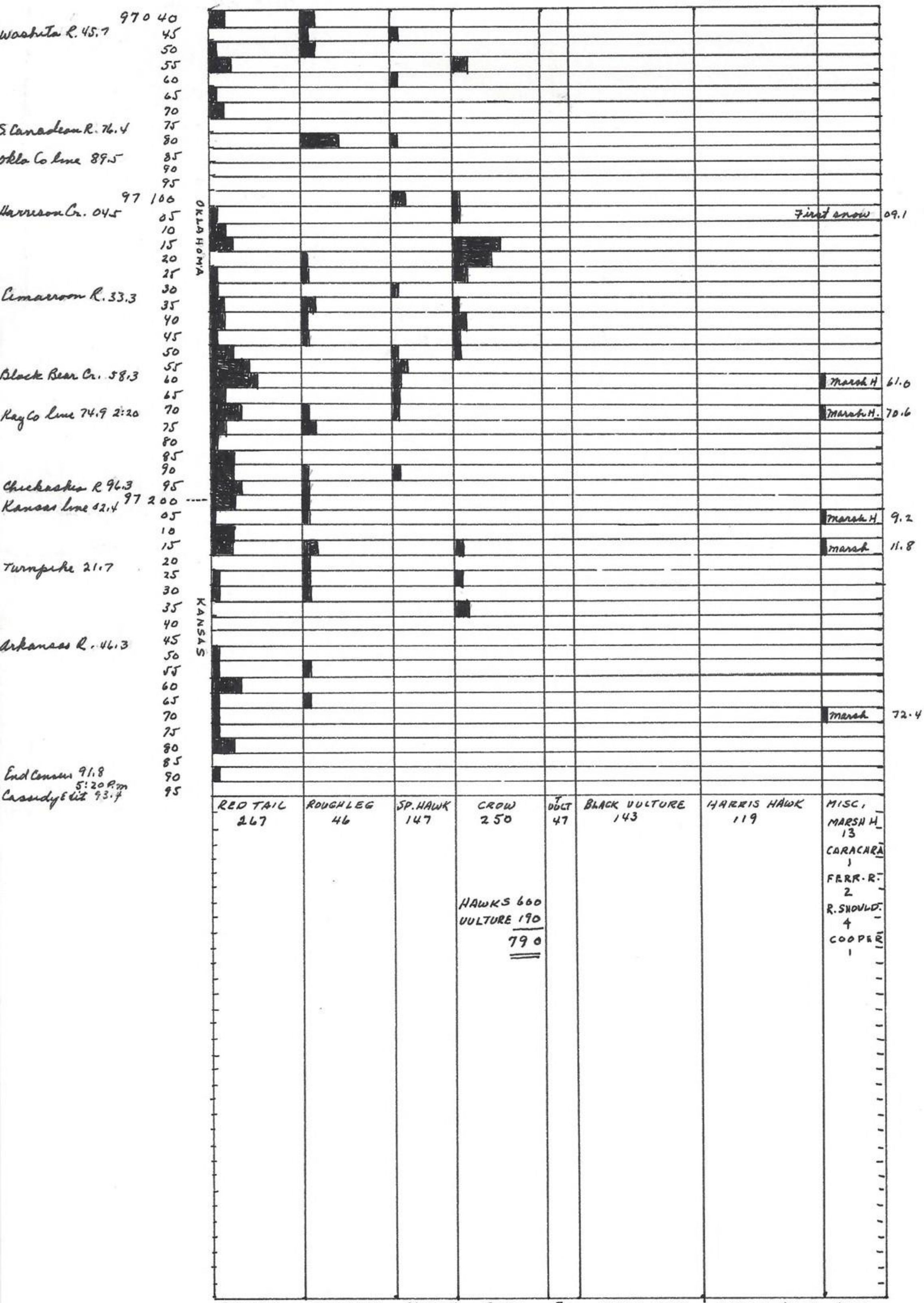
shouldered
red ~~tailed~~ H 54.5
shouldered
73
JAN. 3, 1975
cooper 29.0
REDTAIL
ROUGHLEG
SP. HAWK
CROW
T. VULT.
BLACK VULT.
HARRIS HAWK
MISC

12-75


970 40
Washita R. 45.7
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S. Canadean R. 76.4
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80
Okla Co line 89.5
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95
97 100
Harrison Cr. 04.5
05
10
15
20
25
Cimarron R. 33.3
30
35
40
45
50
Black Bear Cr. 58.3
55
60
65
Kay Co line 74.9 2:20
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75
80
85
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Chickaskia R 96.3
95
Kansas line 02.4
97 200
05
10
15
Turnpike 21.7
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35
40
Arkansas R. 46.3
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70
75
80
85
End Census 91.8
5:20 P.m
Cassidy Lit 93.4
90
95
OKLAHOMA
KANSAS
First snow 09.1
Marsh H 61.0
Marsh H. 70.6
Marsh H 9.2
Marsh 11.8
Marsh 72.4
RED TAIL 267
ROUGHLEG 46
SP. HAWK 147
CROW 250
T. DULT 47
BLACK VULTURE 143
HARRIS HAWK 119
MISC.
MARSH H 13
CARACARA 1
FERR. R. 2
R. SHOULD. 4
COOPER 1
HAWKS 660
VULTURE 190
790
REDTAIL
ROUGHLEG
SP. HAWK
CROW
T. VULT.
BLACK VULT.
HARRIS HAWK
MISC.

13-23

14-25

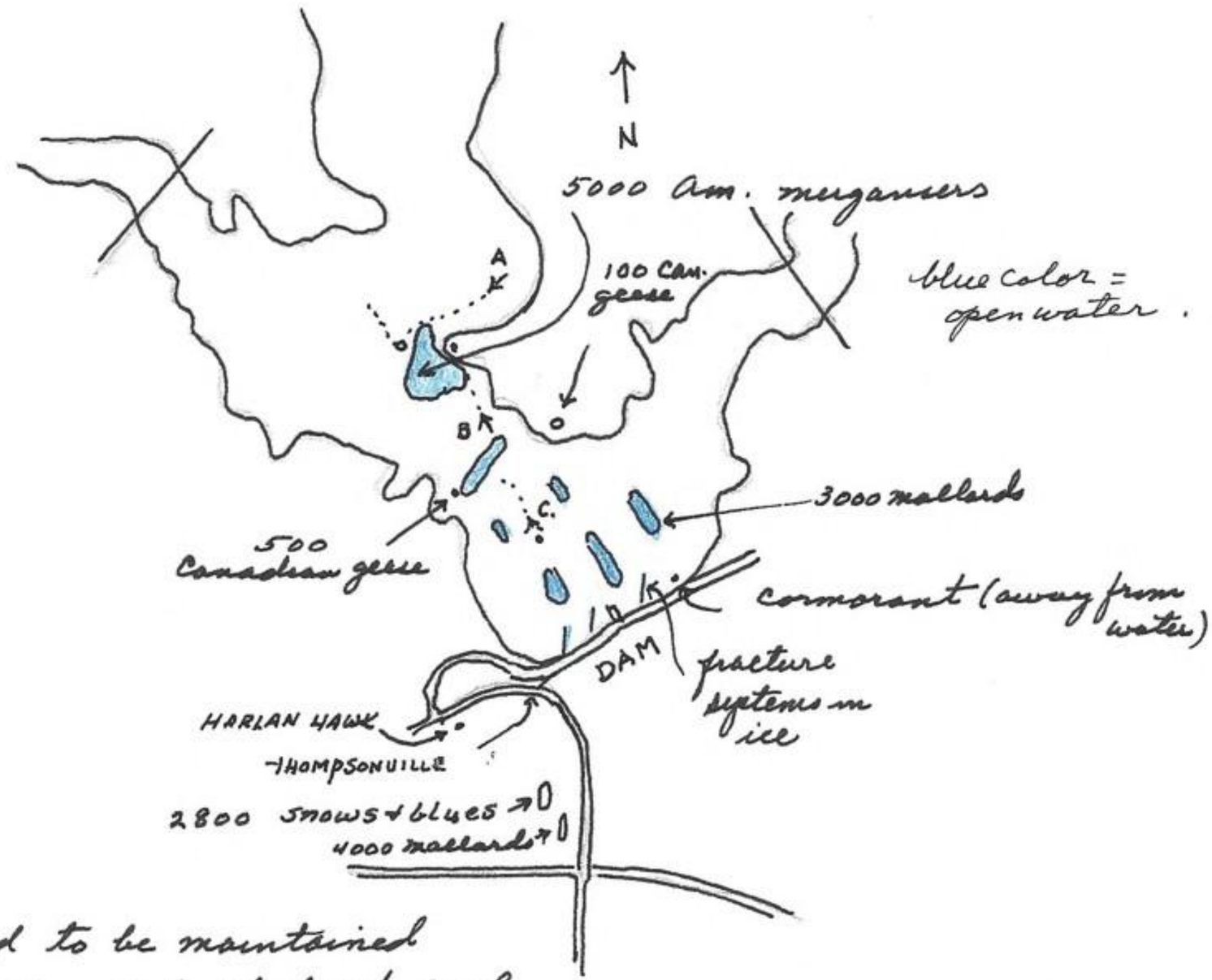
Some observations on census of raptores this trip:

1. The flat coastal plains which are extensively and completely used for crops, and especially in winter months when fields ~~are~~ have been plowed, are rarely used by raptores.
2. Crows, vultures and redtails are frequently associated together in the same region, especially crows and vultures.
3. There are definite area populations of raptores.
4. The sparrow hawk has the widest and most general distribution of the raptores
5. There is a shift of the American roughleg to the south with severe weather of low temperatures and snow.

Perry Reservoir, Jefferson Co., Kansas

Jan. 12, 1975

Annette and I made trip to Perry Reservoir to check on ducks & geese. 1:30 P.M. No raptores between Lawrence and S of Thompsonville on highway 24 where we observed 1 marsh hawk and 2 redtails hunting cut field of corn. The Kaw River at Lecompton was solid [snow?] over sandbars and the water that was flowing was 40% ice masses. In fields S of Thompsonville were approx 4000 mallards in field and a group of approx 2800 snow + blue geese. The geese were within 2/10 mile of road and resting. From W overlook noted 12 open areas in lake, some small. The rest of lake new frozen water and reflective. These open area just N of dam seemed to be formed by natural processes rather than by water fowl. Continued E & N to Gap Point in Big Slough Park. In pond W of Gap Point were approx 5,000 Am. mergansers, 500 lesser scaups, 300 mallards, 7 gadwalls, 1 rough bill gulls over mergansers and 32 roughbills on ice N of open water.



This open water seemed to be maintained by the mergansers. An adult bald eagle No A flew to and alighted on N side open water and after 5 minutes flew N. Baldeagle B (immature) flew N and alighted in trees on W side Gap Point. Bald eagle C (immature left ice and flew N to merganser area.

15-75

Continued N to Ozawkie. All water frozen + new. No ducks, geese or gulls in area (Ozawkie). Left reservoir area to E on Oskalossa Road. In partial summary In the reservoir area were 10 redtails. There were no redtails observed between this area and Lawrence. There were more juncos and tree sparrows than earlier in the season. The geese (Big Slough Park) resting on land (100 from ice) flew out 200' and alighted on ice and immediately squatted down to protect feet.

Lawrence, Douglas Co., Kansas

Jan 14, 1975

Mr. Robert Kasper, a student at Univ. Kansas reported an albino redtail in the same general area for 5 years (1968-1973) both in summer and winter, near Shawnee Mission Park on highway K 10. The personnel at the Agricultural Hall of Fame observed this bird as a common visitor in the autumn of 1973. This site is approx 15 miles from the Shawnee mission site. Mr. Kasper also observed a very dark phase redtail in ~~the~~ its same territorial area (near the Shawnee Mission Park site) both summer and winter for the last three years. This hawk has some red in its tail. He also observed a light phase redtail near Wichita, Kansas.

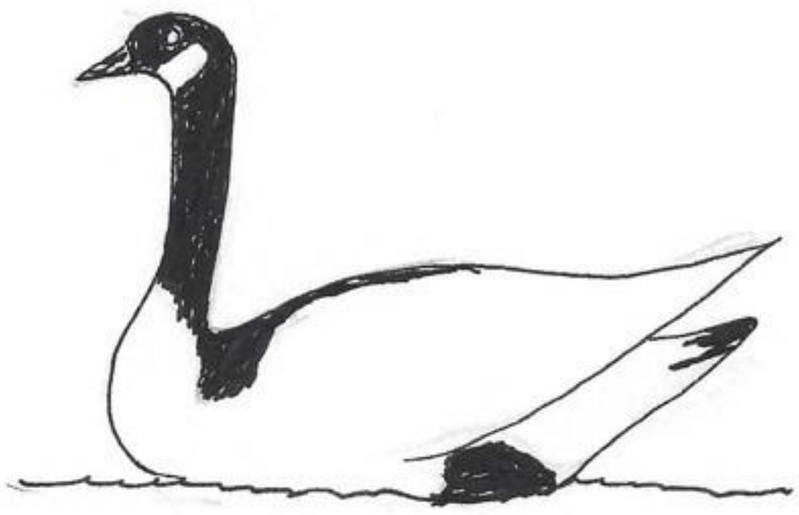
Perry Reservoir, Jefferson Co., Kansas

Jan. 18, 1975

Left 7:30 A.M., temp. 34°F, Wind from ~~SW~~ WSW, sky 30% clouds, Eng up, slate-colored junco and cardinal at feeder at 402 Yorkshire. Crows in field to N, 97838.9 mileage 39.4 redtail (on Peterson Rd), three juncos 40.6 Peterson and Kasold rds. Ponds frozen. 44.4 redtail at pond as usual. 3 tree sparrows. 44.8 sparrow hawk. 46.5 N-5 Leempton rd & farmers turnpike. 46.6 18 starling. 48.4 snow cornices on N exposure along road 49.2 2 starling. 49.8 Kaw River. water open + no ice. 50% ice on sandbars. Low ground fog on floor of valley. 50.5 5 meadowlarks. 50.8 redtail. 51.2 meadowlark. 51.7 starling. 52.1 3 starling 52.7 Delaware River, water down, no ice, greenish color. Bluejay + cardinal and redtail. 54.6 Highway 24. 55.1 5 Canadian geese from reservoir to field SW dam. No other ducks in area. 55.9 Thompsonville, black-capped Chickadee, 2 cardinals, 4 slate-colored juncos. 56.3 2 cardinals, 2 juncos. 56.6 now N, bluejay. 57.4 Overlook at 8:15. The open water areas has taken on a different configuration since Jan 12. The open water W of Gap Point has extended SW to opposite side of lake and one of the openings N of the dam has expanded NW to meet the edge of the W side of the lake. Other openings have enlarged. One adult + 2 immature bald eagles in Gap Point area to north & East.

16-75

In the area n of the dam are 10 open areas and the large one w of Gap Point. The ducks (mallards) are generally distributed in contrast to mass aggregations during colder periods. There were many examples of just two up to 10 ducks separated from the main group. The open water w of Gap Point houses great numbers of am. mergansers, goldeneye and mallard and these I will count when I check the East side. I would estimate that there are 12 thousand mallards in the area n of dam but exclusive of the Gap Point area. Left Overlook and at 58.1 w end of dam, thence n to to point where I could count the geese and ducks. Counted 468 Canadian geese at edge of ice and in water. One Canada goose had a white, entire left. (right) wing normal except primaries white). and when resting on ice or swimming in the water took on a noticeable different appearance. The wing feathers in flight were white to the tip of the primaries. The neck and head were, as far as I could ascertain normal. When this bird was first observed there was a second Canada goose by its side. This second bird had one side with white primaries and the other side (primaries) normal except 2 or 3 single white primaries. These two birds left together when main group left and maintained their close relationship (one followed the other) in the flight pattern.

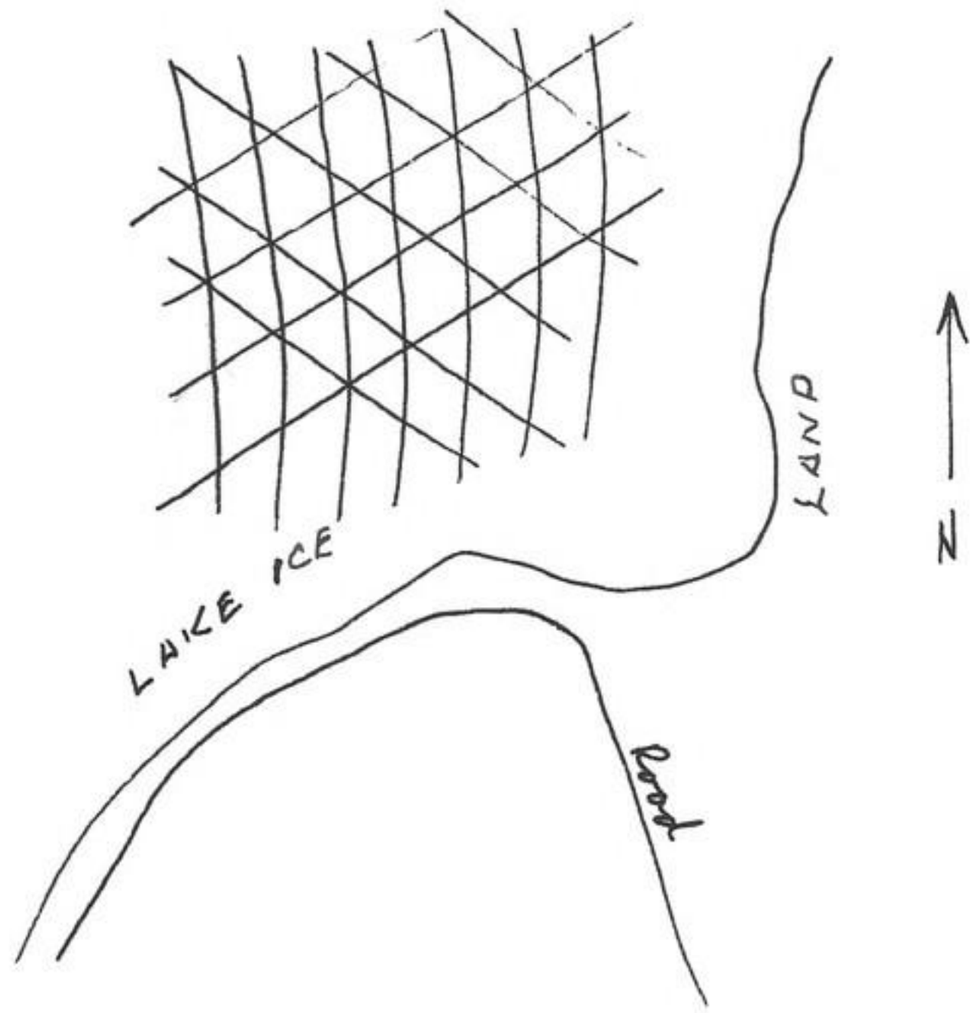


Left this area and continued to E end peninsula (across from Gap Point at 59.8. Counted birds and kinds as they swam by a point in the telescope field and would judge to be 25' in depth.
♂ gold, ♂ gold, ♂ gold, ♂ gold, ♂ gold, ♂ merg. ♀ merg, ♀ merg. ♂ merg, ♂ merg, ♂ gold, ♀ merg, ♀ mall, ♂ gold, ♂ mall, ♀ gold, ♀ gold, ♀ gold, ♂ gold, ♂ gold, ♂ mall, ♀ merg, ♀ merg, ♂ gold, 3 ♀ gold, ♂ merg, ♂ merg, ♀ gold, ♀ gold, malls ♂ ♂ ♂ ♀ ♂ ♂ ♀ ♂ ♂ ♀ ♀ ♂ ♂ ♂, ♀ merg, ♂ gold, ♂ mall, ♂ mall, ♂ mall, ♂ merg, ♂ mall, ♂ mall, ♂ gold, ♀ gold, ♀ gold, ♀ gold ♂ mall, ♂ mall, ♂ mall, ♂ gold, ♀ gold, ♀ gold, ♀ gold, ♂ gold, ♂ gold, ♂ gold, ♂ gold, ♀ gold,

17-25

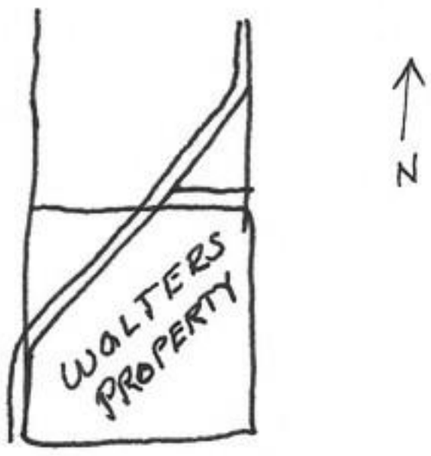
♂ gold ♂ gold ♀ gold ♂ merg ♂ merg, ♀ merg, ♂ mall. ♀ merg ♂ mall ♂ merg ♂ mall ♀ mall ♂ merg ♀ gold ♀ gold ♂ merg ♂ gold ♀ merg ♂ merg ♀ gold, ♂ merg ♂ gold (where gold = goldeneye, merg = am merganser, mall = mallard) This short census weighed too much on goldeneyes as actually there were only 480 in the area against 5000 am mergansers and 3000 mallards. In flight the goldeneye is pure snow white whereas the mergansers have tinted whites (grayer and some reddish pink. The goldeneyes light on water upright, feet widely spread, tail fakstore and landing speed slow. They (the ♂) were going thru their courting ritual with heads on back, then upward and extended then withdrawn back to normal position. There are 82 ringbill gulls either on ice, in water or following above mergansers. The mallard has a good defense against gulls and will fly out of area or defend. They seldom loose their food whereas the goldeneye & especially the am mergansers keep the gulls alive. Mallards follow goldeneyes and succeed in getting food brought up by the goldeneyes. Left 9:55 A.M and returned to W end dam same way. 3 crows visited ~~the~~ duck area. ~~6.03~~ 60.3 main road ~~east of marina~~, wind from calm to slight ripple on water, temp 50°F. (10:40 A.M). W end dam 61.5, 30 tree sparrows. Water level at 889.3 which is as low as it has been this winter. Water lines pronounce between here and 892. Met Mr Hathaway of the corp of engineers. 63.1 administration. He reports 2 immature and 1 adult bald eagles in Big Slough Creek the last week (Jan 14), 63.8 to ~~to~~ N. redtail. 65.3 18 juncos. 67.0 completed Perry circuit and now main road. 67.1 redtail. 67.6 main highway 68.2 Ferguson road. 69.1 2 crows on ice. 69.3 Big Slough Creek bridge. A sparrow hawk on bridge. 69.5 Am. roughleg. 70.9 now left to Big Slough Creek Park. ~~70.8~~ from Ferguson Rd. 71.8 entering Big Slough Park. 71.9 drainage. 72.5 now to left and will follow regular circuit without diversion 73.7 12 tree sparrows, 5 juncos. 74.5 8 tree sparrows & 20 juncos. The old Co. rd is now about a foot above the water level at Gap Point. 74.8 Gap Point at boat ramp. No redtails in air as far as 10x binocular can see to N. All see N Gap Point. 12:00 75.1 fox squirrel ran across rd. 76.3 leaving Park. 77.3 Ferguson Rd now to N. 79.1 2 redtails a pole apart. 80.2 W to Longview. 80.7 sp. hawk. 81.7 2 sparrow hawks 1½ foot apart. on line. 82.3 entering Park. 83.2 S end Park at boat ramp. 12 mallards on ice to W in lake. No other gulls or ducks in area. Redtail. 83.9 N end circuit but not the last one. One small flock 10 juncos and about 20 tree sparrows. From this point there is a fracture

on the ice that carries out into the lake for at least half the extent of the lake and consists of three definite patterns, each about 20-30 feet apart. This pattern would suggest both compressional and tangential forces. 84.0 redbellied woodpecker. 84.2 5 tree sparrows. 84.6 by-passing N circuit. 84.8 8 juncos, 12 tree sparrows. 85.0 main road + leaving Park. 86.4 shrike. 87.1 Ferguson Rd now N. 88.6 Little Slough Creek bridge. Water frozen but some new water forming on top. 89.3 4 corners (highway 92) now W.



91.1 Ozawkie Bridge. no open water or ducks gulls etc. 91.9 same bridge + going E. 93.7 4 corners + now N. 95.2 8 tree sparrow. 95.4 4 juncos. 95.8 now W. 96.6 sp. hawk. 97.2 lake ~~lake~~ new ice. 97.4 entering Paradise Pt Park. 97.5 2 redtails. 98.4 now left. 98.7 2 cardinals, 8 tree sp + 2 juncos. 98.7 2 tree sparrows. 99.8 fox squirrel. <u>97900.0</u> back on center road + now E. 00.5 lake N Paradise Point all ice + no birds. 00.6 watched a ♂ marsh hawk catch <u>microtus ochrogaster</u>. and first cleaned 80% of fur from mouse, then started head lungs intestines (which it did not eat) and finally entire back end of mouse. First cleaned feet, then bill on grasses by forcing into grass and moved with end of bill as pivot, then bill with feet. It left and commenced hunting immediately, dropping twice to ground but without success. 01.5 leaving Park at ~~1:40~~ 2:10 P.M. 03.6 2 tree sparrows. 03.8 8 tree sp. 2 juncos. 15.8 Little Slough Creek bridge. Except on extreme N-exposures there is no snow in area. 07.1 2 meadowlarks, 07.2 cowbird. 11.8 Big Slough Creek Bridge. Ice shows sign

12.9 End Ferguson Rd. 13.9 SE Corner Perry area at 2:30 P.M 15.6 sp. hawk, 16.5 highway 24. 17.2 5 starling 19.2. Kaw River. Highway 438 to E at ~~2.25~~ 22.5. 23.2 2 meadowlarks. 23.8 redtail.



24.7 redtail. 25.7 redtail. 28.4 Kasold & Lecompton Rd. and will continue E to Iowa & thence to University. 30.1 Turnpike overpass & Iowa and end of census. Temperature got up to 58°F.

19-25

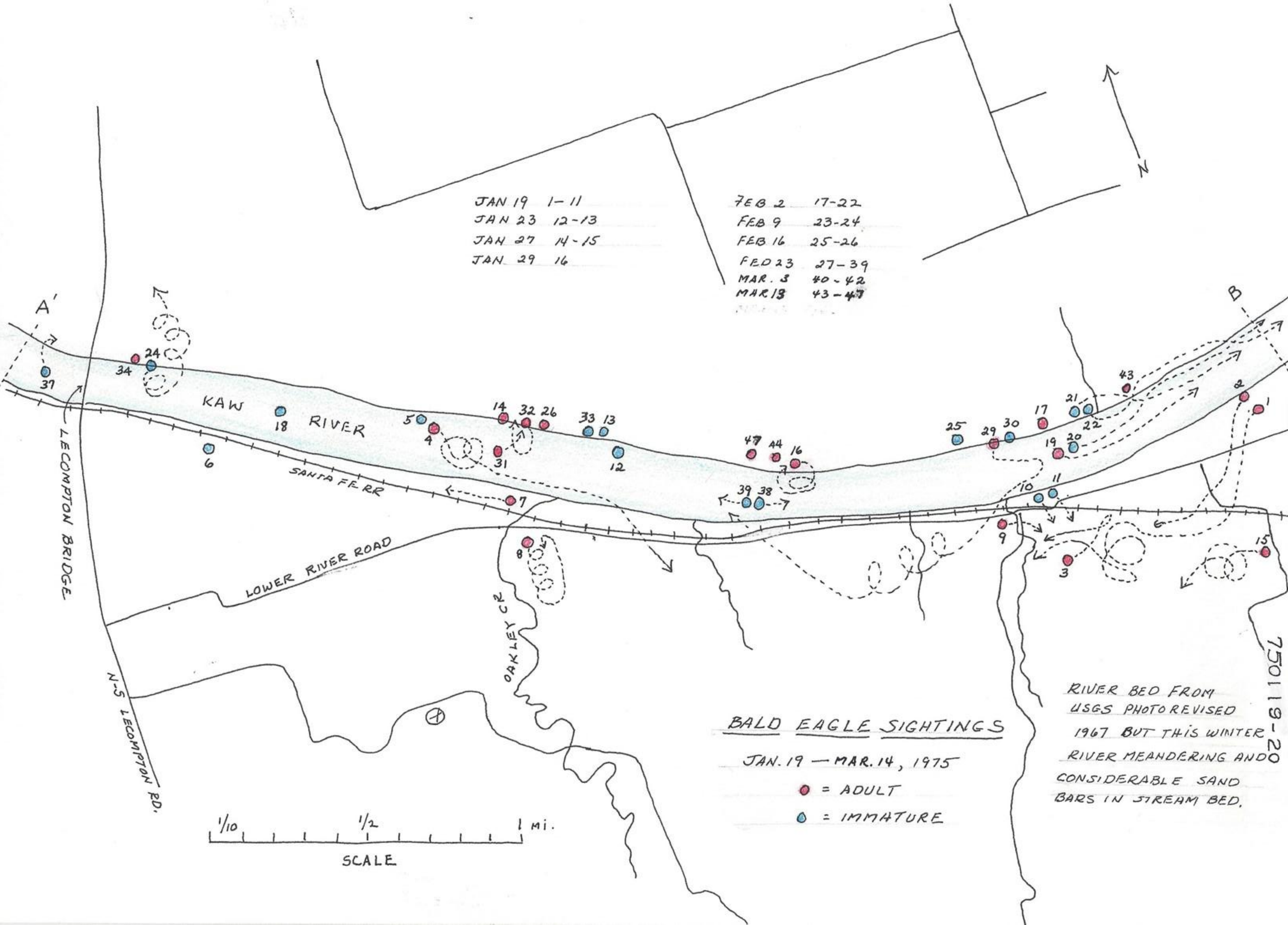
Perry Reservoir, Jefferson Co., Kansas

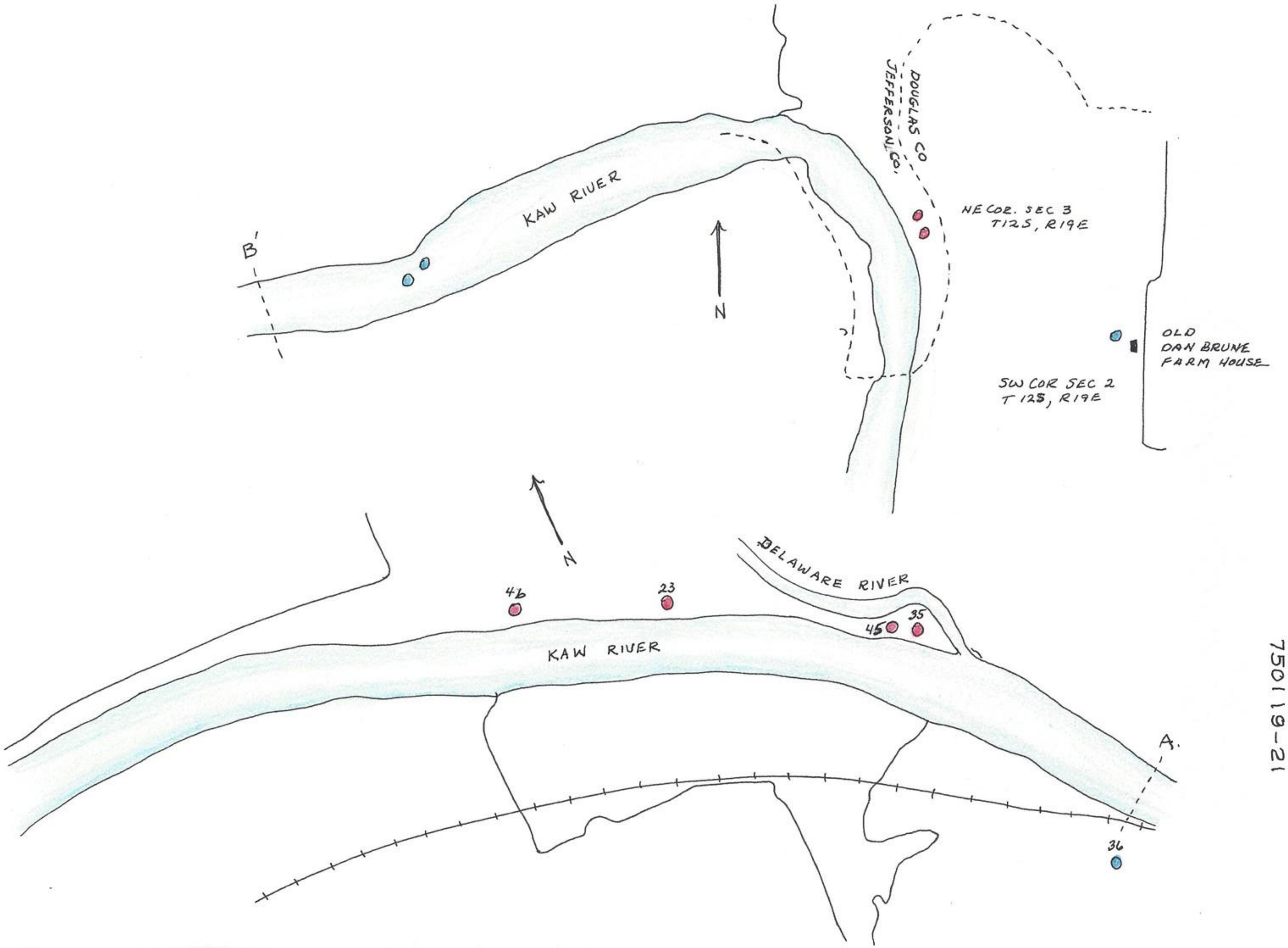
Jan 19, 1975

Rain last night & slight snow.

Trip to Perry Reservoir, left 402 yorkshire, Lawrence at mileage. 97936.4 at 9:20 A.M. Clouds but some blue low to W. Wind NNW. Temp. 34.5°F At home 1 Cardinal, 2 junco, 42 Eng sp 36.4 18 meadowlarks in one group. 36.6 bluejay. 38.0 Lecompton & Kasold Rd (1041), 2 crows. 38.5 Now N to Lake View. 39.5 Lake View Causeway, water all ice with trace of snow on top. 41.5 crow. 41.8 redtail. 42.0 8 goldfinches. 42.1 at 9:45. 2 adult bald eagles first observed about 100' above cottonwood trees on E side Kaw River. They circled S to ridge (edge of river valley) where one alighted in the top of the highest tree on ridge while the second one was joined by a 3rd adult bald eagle from the W. These two birds circled upwards and one followed the other, at times making near contact and slightly tumbling at the moment. An downward & upward glide was established. After about 8 such circles upward 400 ft. they parted and one sailed S beyond ridge and the other sailed W. The one that alighted in the tall tree displaced a redtail which flew to another tree but returned ~~to~~ back to the tree and alighted below the eagle. 42.9 Crossing Santa Fe R.R tracks 43.0 now on hillside road, along river (Kaw). River open with coronaslike effect with sand along shore, then snow, then sand in center of sandbar. 44.4 bluejay. 46.0 Lecompton Rd. 46.8 Lecompton Bridge over Kaw River. To E on Kaw river can see 2 eagles perched conspicuously on black willow trees (1 1/10 mi) at edge of river on N side (one juvenile, one adult) and 1 immature in tall tree on S side of river (4/10 mi) at point where hill begins to contact river. The adult left perch and made 3 circle over river just E of the perching area and on each circle contacted the water with 2 to 3 thrusts of the feet, in no case with any force back of the thrust as if to capture fish but only a token contact. It then continued E down river for a short distance and then left river and flew S toward ridge. (See following page for position of these bald eagles)

20-1975


JAN 19 1-11
JAN 23 12-13
JAN 27 14-15
JAN 29 16
FEB 2 17-22
FEB 9 23-24
FEB 16 25-26
FEB 23 27-39
MAR. 3 40-42
MAR 13 43-47
N
A'
A
B
KAW RIVER
SANTA FE RR
LOWER RIVER ROAD
LECOMPTON BRIDGE
N-S LECOMPTON RD.
OAKLEY CR
1/10
1/2
1 mi.
SCALE
BALD EAGLE SIGHTINGS
JAN. 19 — MAR. 14, 1975
= ADULT
= IMMATURE
RIVER BED FROM USGS PHOTO REVISED 1967 BUT THIS WINTER RIVER MEANDERING AND CONSIDERABLE SAND BARS IN STREAM BED.
750119-20


KAW RIVER
B'
N
DOUGLAS CO
JEFFERSON CO.
NE COR. SEC 3
T12S, R19E
OLD
DAN BRUNE
FARM HOUSE
SW COR SEC 2
T 12S, R19E
N
DELAWARE RIVER
46
23
45
35
KAW RIVER
A'
36

22-75

Redtail circling over Lecompton to w. Crow passed over bridge from w to E. It is possible that these 2 immatures and the adult are the ones observed at Perry Reservoir. 47.9 4 horned larks. 48.4 Sante Fe R.R. crossing. 49.6 Delaware River. 51.5 highway 24. 52.2 sp hawk. 52.8 Thompsonville (this refers to beginning of road to the w thru the village of Thompsonville) 53.2 3 mourning doves 53.5 dark phase red tail with some red in tail but all dark otherwise. Red-bellied woodpecker. 53.6 Cardinal & now to N. 54.4 Overlook. Immature bald eagle circling 150 above trees at the overlook point and circled S. From Overlook can count only 480 mallards in the same area where yesterday there were 12,000 mallards. There may be in fields. There is an equivalent number at Gap Point. The open body at Gap Point maintains the usual number of American mergansers and goldeneyes as observed yesterday. Left 10:40. 55.1 w end dam & roads to N are closed because of ice on road. white-caps on large bodies of open water. Temp 35°F Openings are angular  in contrast to circular later on in season. 55.8 at gates can see no ducks in Delaware 57.5 SE corner reservoir area. 58.3 2 cardinals, 4 tree sparrows, redtail. 58.8 meadowlark. 60.3 highway 24. 63.0 Kaw River at Lecompton bridge. 64.0 now to E 64.1 5 tree sparrows + cardinal. 64.5 15 juncos, 30 tree sparrow. 64.8 from this advantage point can see an adult bald eagle flying w along the edge of the valley ridge directly north of here and an adult bald eagle hunting or circling over N S ridge E of here. These birds are probably the same birds observed earlier today. The eagle on ridge E of here concentrated on ridge bordering the river valley. 65.4 approx 18 ~~tree~~ Harris sparrows, 100 tree sparrows, 4 titmice, 4 chickadees, 1 towhee, 30 slate-colored juncos, which is the largest flocks observed so far this season. now sunshine but snow in air. 65.6 first drainage 65.7 main drainage, water clear. 66.0 10 cardinals in one flock and no other birds. 66.7 Cardinal. 67.4 now E at convergence of three roads. 67.9 now N- 69.1 juncos. 69.2 8 juncos. 69.6 river rd. 2 Immature and adult eagle circling 200' overhead and trending E along river ridge. 69.6 flicker & 2 meadowlark. 71.0 2 horned larks. 71.1 23 meadowlarks in one group. 73.1 Lake View Causeway and in all previous notes has reference to the bridge. 74.0 sp. hawk at junction Lake View Rd & Lecompton rd. 74.3 sp. hawk. 76.3 402 yorkshire at 12:05 P.M. Temp down to 30°F.

750123-23

23-75

Lecompton, Douglas Co., Kansas

Jan 23, 1975

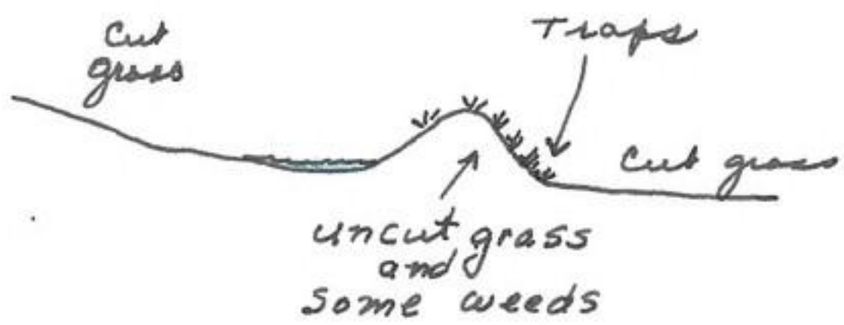
Made short trip to Lecompton area to check on bald eagles. Left at mileage 094.0 at 10:45 A.M. Temp 43°F, sky without a cloud, wind from south 94.1 4 meadowlarks, 95.7 Lecompton & Kasold. 96.2 now N to Lakeview on 1042. 97.2 Lakeview Causeway. Lake frozen except at bridge. 98.8 all black hawk with black tail and no red and could be either a dark phase redtail or an rough-leg. 00.7 hillside. 01.0 cardinal. 01.3 bluejay. 01.4 redtail. 01.6 bluejay. 02.5 meadowlark. 03.1 redtail. 03.7 Lecompton Rd 04.4 Lecompton bridge. The free flowing water is now filled with moving slushlike ice and the question is where did the ice come from as the river has been open all winter. No snow on sandbars. At 11:30 two immature eagles circling over river to E. (see map of Jan. 19, 1975 for position). Water clear. 05.4 back to bridge & returning to Lawrence. 05.8 now E. 06.1 20 tree sparrow. 06.2 16 tree sparrow. 07.4 Harlan hawk. 07.9 5 juncos. 08.4 bluejay. 09.1 2 meadowlarks. 09.2 12 meadowlarks, 1 flicker, 3 mourning doves, 5 starling all one group in open field. 09.6 crow. 12.2 Lake View Causeway. 04.7 Kasold and Peterson Rd. 98115.5 home at 402 yorkshire at 12:00 noon.

Perry Reservoir, Jefferson Co., Kansas

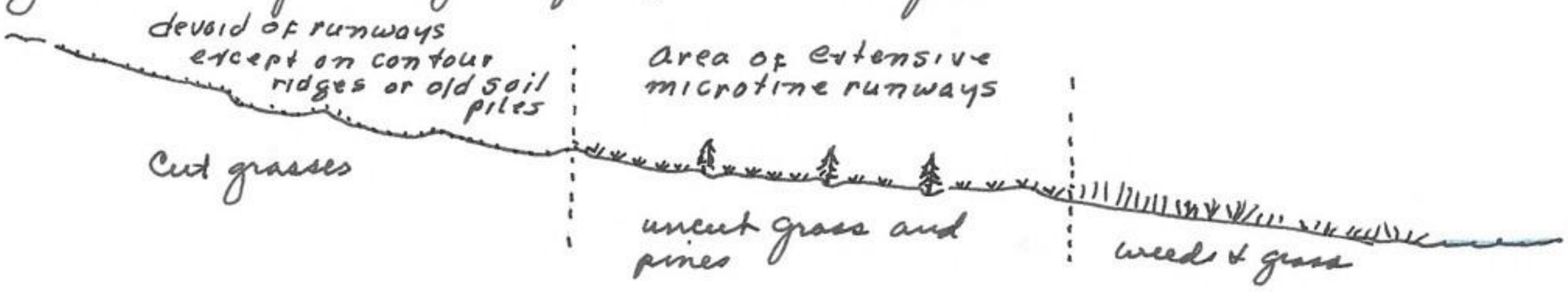
Jan 25, 1975

Annette and I spent the night at Paradise Point. Recorded all birds over and back. Followed usual route, Peterson Rd, Kasold, Lecompton Rd W, N-S Lecompton Rd., Perry, N to SE corner reservoir area, N to Ferguson Rd to Paradise Point. Left at mileage 98152.7, temp 41°F, strong wind from NW, sky cloudy to S, clear to north. Left 3:00 P.M. 54.4 Peterson and Kasold. 56.1 redtail. ~~Some~~ all ponds open except some with ice around border. No snow on ground. 58.6 redtail. 59.2 redtail. 60.3 N-S Lecompton Rd. 62.2 sparrow hawk. 63.6 Lecompton bridge, more water, no ice in water, no snow. Wind blowing sand off sandbars in river ~~bed~~ bed. 66.3 highway 24. 67.5 marsh hawk. 68.7 SE corner Perry Reservoir area. 70.0 Ferguson Rd. 71.1 Big Slough Creek Bridge and water open under bridge and 20% open to east. Closed to W. Temp 45°F 75.4 pond in ice. 75.5 turnoff Longview, cont. N. 76.4 Cooper hawk. 77.0 Little Slough Creek, water open, some ice on edge. See to W and no duck 77.5 sp. hawk and horizontal in high wind.

78.1 5 crows. 78.9 4 Canadian geese flying S and finding it difficult to keep from blowing E., 4 tree sparrows. 79.8 raw W. 81.0 sp. hawk. 81.4 entering Paradise Pt. Park. 81.6 sparrow hawk. The area of lake S of the peninsula is open and in white-caps. The opening extends on an S curve to Ozawkie. The channel on W end peninsula is in ice. There is 4 small open areas between the Paradise Peninsula and the causeway at Ozawkie to the south. In the open water at the most eastern extension of the open water on S side of peninsula were approx 200 mallards and 5 Canadian geese. 12 am. mergansers were in center of open water. Continued W to end of peninsula and made the usual circuit routes and then continued E on S side of peninsula to camp. Noted 2 bluejays, one flock of approx 40 cowbirds passing NW across peninsula, 1 marsh hawk ♂, 8 tree sparrows and 12 juncos, 2 sparrow hawks and 2 cardinals. Set 100 traps in two areas, one 150 traps, 2 at a station at 15' distance at base of a dam holding a man made pond now down to about 6" deep. The runways were extensive and all used with well beaten trails. Some of the trails led out onto cut area for a short distance. At about mid distance on dam was a newly excavated hole approx. 8"x8" and some 5 bushels of soil excavated from hole. A mallard duck (feathers & wings was 3' away from hole.



The second 50 traps, 2 tree interval was along a line of pine trees (2 to 4½ feet high and planted in a depressional groove of dam soils and grasses. The entire length was developed into good runway with green feces, packed trails and cuttings.



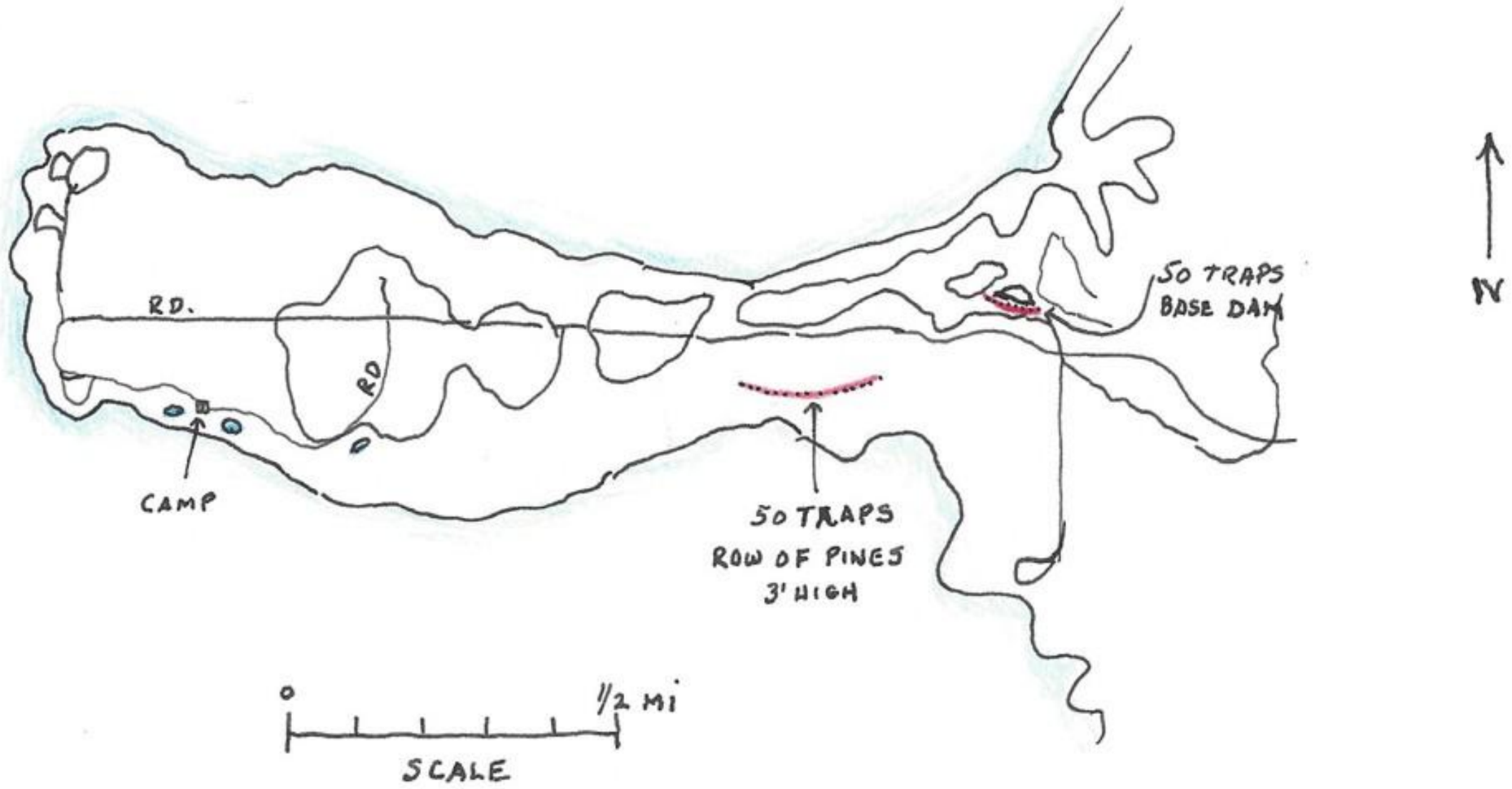
Perry Reservoir,

Paradise Point, Jefferson Co., Kansas.

Jan-26 1975

750126-25

25-25



From the trapline set last night at 1 hour before sundown to sundown captured the following mammals: (from line of pines)

750126-1	Synaptomys cooperi		128-17-19-10-41 gms. ♀ 2x1 emb 6 mm.
750126-2	"	"	113-17-18-9-26 gms ♀ ut. normal
750126-3	Peromyscus maniculatus		139-55-19-14-17 gms. ♀ ut. normal.
750126-4	"	"	138-54-19-13-12 gms ♀ ut. normal.
750126-5	"	"	143-54-19-15-20 gms ♂ testes 10 mm
750126-6	"	"	130-48-18-13-19 gms. ♂ testes 8 mm
750126-7	"	"	123-46-19-12-15 gms. ♂ testes 5 mm
750126-8	"	"	142-58-19-14-17 gms. ♂ testes 7 mm
750126-9	"	"	127-50-18-13-15 gms ♀ ut. normal
750126-10	"	"	137-53-18-13-15 gms ♂ testes 7 mm
750126-11	"	"	138-52-19-13-20 gms ♂ testes 8 mm
750126-12	"	"	118-47-18-13-11 gms. ♀ ut. normal
750126-13	"	"	148-63-20-14-19 gms ♂ testes 8 mm
750126-14	"	"	124-46-18-13-12 gms. ♂ testes 4 mm
750126-15	Reithrodontomys		144-67-17-12-12 gms ♀ ut. normal
SR. OH. 750126-16	"		122-55-17-11-9 gms. ♂ testes 4 mm
750126-17	"		120-53-17-11-10 gms ♀ ut normal
750126-18	"		[89]-[18]-17-11-10 gms. ♂ testes 3 mm
SR. m 750126-19	Microtus ochrogaster		160-35-19-12-53 gms. ♀ 2x3 emb. 5 mm
750126-20	"	"	152-38-20-11-43 gms. ♀ 2x2 plac. scars
750126-21	"	"	142-31-21-11-45 gms ♂ testes 9 mm
750126-22	"	"	145-33-20-11-42 gms ♂ testes 10 mm

26-75

	750126-23	microtus oehrogaster	121-26-19-10-27 gms. ♀ ut. normal
	750126-24	" "	119-27-19-10-22 gms. ♀ ut. normal
	750126-25	" "	138-31-19-11-36 gms. ♂ testes 10 mm
	750126-26	" "	138-33-20-10-40 gms ♂ testes 10 mm
SK. on	750126-27	" "	143-35-19-11-40 gms ♂ testes 11 mm
	750126-28	" "	158-41-19-11-47 gms ♀ testes 13 mm

From the line of 50 traps at base of dam.

SKU	750126-29	Synaptomys cooperi	133-18-19-10-46 gms. 3x1 emb 10 mm. all being absorbed.
SKU	750126-30	microtus oehrogaster	120-25-19-10-27 gms ♀ ut. normal.
	750126-31	" "	152-34-19-10-43 gms ♂ testes 13 mm
	750126-32	" "	151-35-19-10-40 gms ♂ testes 12 mm
	750126-33	" "	153-35-19-10-43 gms ♂ testes 11 mm
SK. on.	750126-34	" "	160-41-19-10-45 gms ♂ testes 10 mm
	750126-35	" "	144-35-19-10-33 gms ♀# ut normal
	750126-36	" "	172-43-20-10-44 gms. ♀ " "
SKU	750126-37	" "	150-34-21-10-42 gms. ♂ testes 9 mm
	750126-38	" "	150-36-19-10-42 gms. ♂ testes 11 mm
	750126-39	" "	142-32-19-10-34 gms ♀ ~~testes~~ ut. normal.
	750126-40	" "	

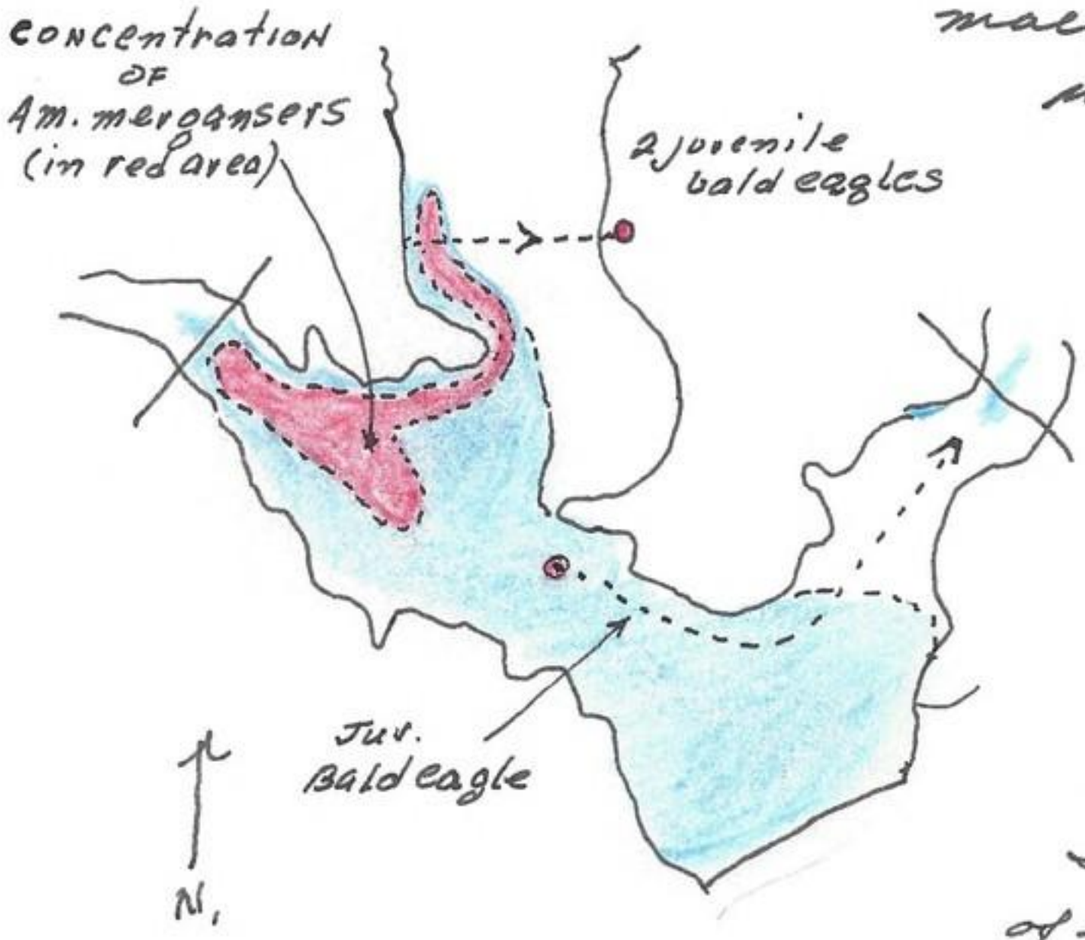
The anticipated catch of the line along the pines was at least a 90% catch of Synaptomys cooperi as evidenced by heavy use of trails, the great amount of green feces, the complete lining of sections of trails with 3'-7' long grass stems and the continuous evidence of feeding activity. The reversal of this prediction was true; Peromyscus and Reithrodontomys had replaced the Synaptomys either by direct competition of these mammals from the weedy area about 60' away or the Synaptomys may have, recently died from winter resistance and were replaced by the Peromyscus and the Reithrodontomys. There is passibebly that the Synaptomys are more active in the daytime and the other mammals more active at night. This line should be run again with a part or all daylight period represented.

It is also obvious that the grasses should be cut at least 8 inches above the ground for the necessary overhead protection of the microtines.

Left Paradise Point about 9:00 A.M and drove down to Big Slough Park (recorder malfunctioned this date so no complete census). At the S end of Park on main road noted an immature bald eagle flying S (200' from shore out over water) from Gap Point and then E up Big Slough Creek (150' above water + ice). At no time did either ducks or Canadian geese react to the eagle overhead.

On land just SW of main road at S end were 58 Canadian geese. They left and alighted approx. 300' W of shore. One of the geese was the one observed Jan 18, 1975. It has the left wing white, and the right wing with white primaries.

From Gap Point can see the winter population of American mergansers, now stretching from Rock Creek bridge to a point N of the point N of Gap Point. I would estimate that there are at least 5000 bird. The mallards, 10,000 are generally distributed wherever there is open water and with almost mirror like surface one can see individuals or pairs or small groups swimming on the water with trailing wakes. Golden eyes present 200 can be counted. 86 gulls (ringbills), resting on the ice and 24 above the Am. mergansers. There is some isolated examples of ice thrust on shore.



Left area and returned to Lawrence arriving at 11:30 A.M. Because of malfunction of recorder did not make census of birds or even raptores.

Lecompton, Douglas Co., Kansas
Jan. 27, 1975

Made short trip to Lecompton area to check on bald eagles. Left 12:20 P.M. Will keep list of raptors only. 79.1 redtail. 79.4 Kasald and Peterson Rd. Wind from NE. 80.3 redtail. 80.6 sparrow hawk. 81.8 Lakeview Causeway. 83.4 redtail (dark phase). 85.3 at bridge and now along side hill of valley. 88.9 Lecompton Bridge (1:00 P.M) Could not see any eagles from bridge so return east along lower road and at a point 8/10 mi W of the point where road crosses the Santa Fe R.R (near point where road starts on hillside) observed ~~[illegible]~~ an adult bald eagle 1/2 way up a large riverside cottonwood on the N side of river. A train passed by and it left the tree and flew E about 200' and alighted in another cottonwood tree. After about 5 minutes it left this tree and flew E over open fields just N of the riparian trees bordering the river. At first the flight was direct and about 100' from ground. After approx 1/2 mile it started to gain elevation but

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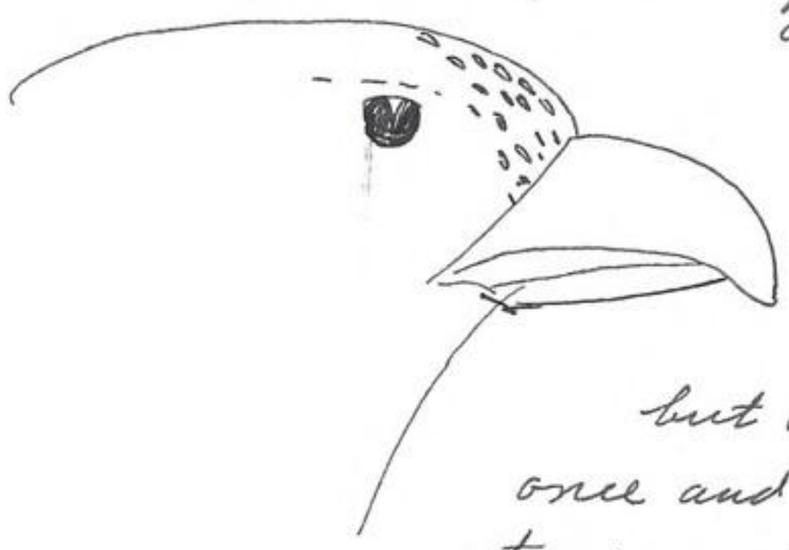
at the same time flying directly east. At approx 1/4 mile beyond it started to make periodic circles while continuing E with regular wing beat. Finally it soared continuously and upward to approx 7000' when it turned NNE and glided out of sight. This occurred in a time span of 13 minutes. Continued on and at 92.4 noted a dark phase all black redtail, its call about half way between a series of squeals and the typical redtail call. If this is indeed a redtail it must be a young of the year with immature vocalization. The all black plumage may be associated with the young of the year. There were bars in at least the secondaries and the tail. at 93.3 bridge. 93.4 Santa Fe R.R crossing. At 94.2 noted an adult bald eagle circling over hill to S. This eagle could not have been the same eagle as noted above. It was an adult bald eagle and circled for 10 minutes in the same general area. At its eastern edge of activity it came in contact with a red-tailed hawk, the redtail reacting by irregular flight pattern. Continued E and noted 23 mourning doves in one group in field. 95.6 redtail all black with no red in tail. Primaries and secondaries are barred, tail black and barred. 96.8 Lakeview Causeway. 99.3 Peterson road and Kasold. 00.1 402 Yorkshire Dr at 2:00 P.M.

Lecompton, Douglas Co., Kansas

Jan 29, 1975

Drove out to bald eagle winter grounds E of Lecompton. and at 2 3/10 mi E of Lecompton bridge on N side of Kaw River watched an adult bald eagle for 1/2 hr. (4:00 - 430 P.M). This bird had good ruff of white feathers on neck and had dark spots, probably blood stain, on forepart of head. In a period of 30 minutes this bird left its perch, dropped down to the river in a half corkscrew descent and contacted the water at a low angle approach. The contact with the water was graceful and without force. On one occasion it contacted the water twice, but on all other tries it contacted the surface only once and then returned to its perch. This bird used 1 perch twice and 3 other different perches, all in 3 trees within 50 feet of each other, and all small limbs and all about 2/3 distance up tree. While on its perch it would point bill down and continuously survey the water below. I could tell when the eagle had spotted its prey as it would become intently interested and make preparatory adjustments on its perch before flying down to the water surface. At one time it moved 150' up stream and then returned.



750202-29

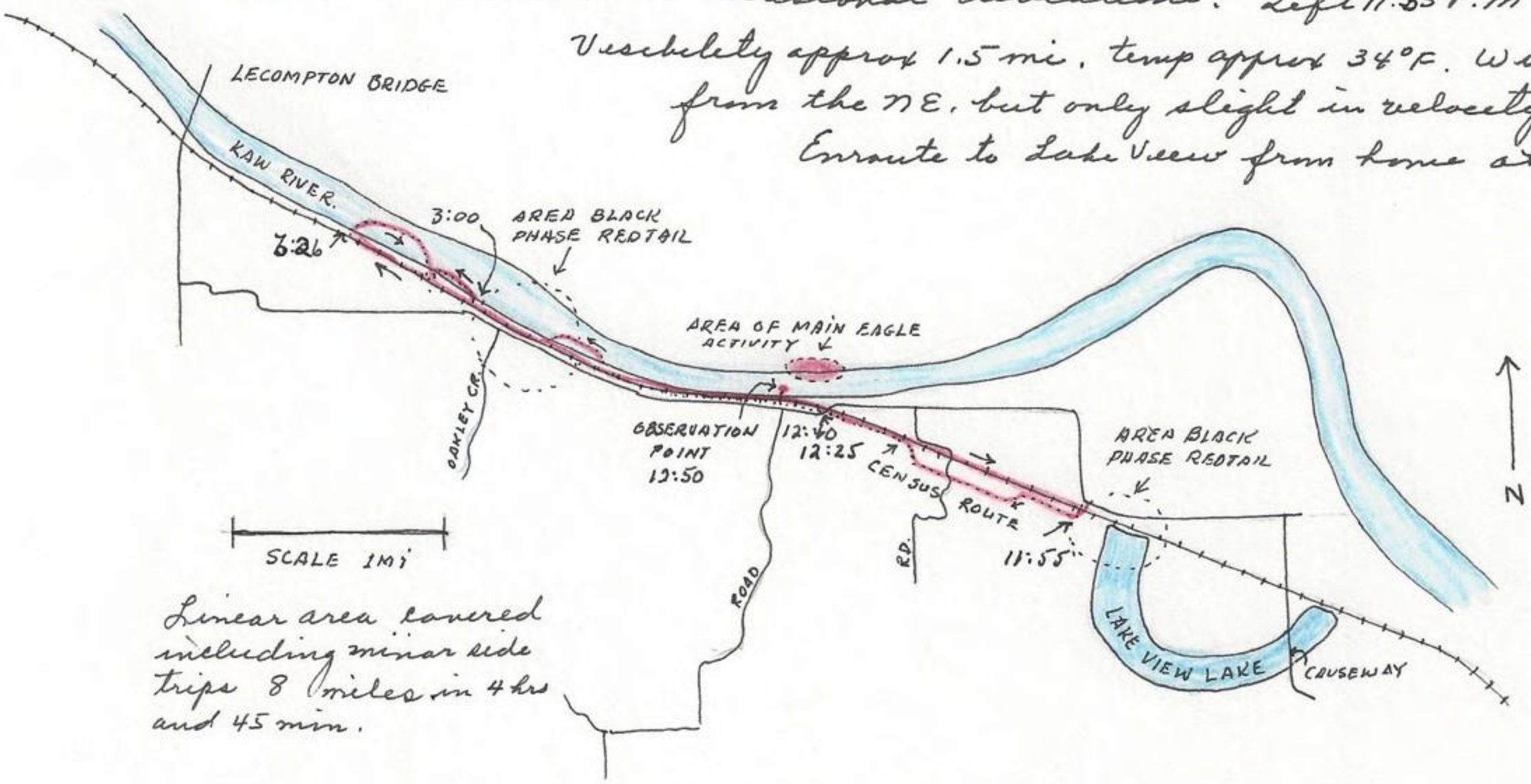
29-75

Lecompton, Douglas Co., Kansas

Feb. 2, 1975

Hiked from NW end Lake View Lake to near Lecompton Bridge and return to check bald eagles along the river. Followed Santa Fe tracks with occasional deviations. Left 11:55 P.M

Visibility approx 1.5 mi. temp approx 34°F. Wind from the NE, but only slight in velocity. Enroute to Lake View from home at



Linear area covered including minor side trips 8 miles in 4 hrs and 45 min.

402 yorkshire noted 3 redtails and 3 sparrow hawks. Will not keep complete census except raptors but will make noteworthy observations and will list different kinds of birds observed. Up to 12:25 noted 4 crows in one flock and a hairy + downy woodpecker. 12:40 R.R. tracks at county road crossing. From observation point on edge of river at 12:50 noted an adult bald eagle in cottonwood tree at a point 1/10 distance from top, and at edge of river where meander axis aligned with bank at 90°. In the ~~ten~~ 30 minutes I remained with dog running up and down the bank, the eagle did not move and was definitely resting and not hunting. I have noticed that most of the eagle I have observed are associated with where meanders contact the side of the river bank and in this area on the north side of river away from train, car or human disturbance. ~~Continued~~ upstream ~~and at 2:45 crossed~~. At this place on W side of the first drainage measured a circumference of a cottonwood tree at 144 inches. This drainage has a flow of about 1 gal per 2 seconds. In this area noted a flock of 1 downy, 1 white breasted nuthatch, 6 black-capped chickadees, 2 slate-colored juncos, 2 titmice, 1 bluejay. A black phase redtail ~~flew~~ flew N across ~~the river~~ to the north side of river. ~~2:15~~ 1:30 second major drainage with 1 gal per 2 seconds. In one flock noted 4 titmice, 8 juncos. 2:15 3rd major drainage with 1 gal. per 3 seconds. Just beyond not in one flock – 38 tree sparrows, 2 song sparrows, 1 white-breasted nuthatch, 8 goldfinch, 3 titmice, 20 juncos, 1 white-throated sparrow and

30-75

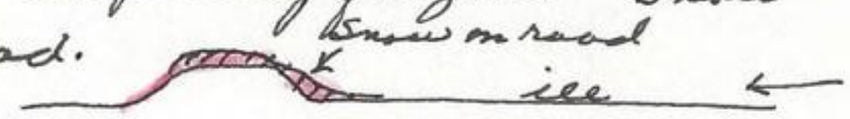
one cardinal. 4 mourning dove flew up from field. 2:45 4th drainage (Oakley Creek). at approx 7 gals per second. 3:00 field road crossing tracks from house at base of hill. Redbellied woodpeckers seem to be more numerous than first 1/2 of trip although area seems less favorable. 3:26 bend and can now see down tracks to Lecompton bridge. Left track and return via sand in river valley. This one area had several isolated small logs and at each log my dog inspected and smelled those parts where other animals had used the logs as sign posts. Closer examination of undisturbed sands showed tracks of both the coyote and red fox. These animals must spend considerable time here during the night. This was one instance when a dog was more cognizance of other mammals than I was. These broad expanses of pure sands between meanders are delightful places to travel. Water clear but surface contaminations in backwaters of alder cut off channels. Our return passed 4th drainage at 3:40. 1 marsh hawk flew N across river. ~~4:22~~ While on before mentioned sandbar an immature eagle flew down center of river valley from W to E and alighted in tree on N side of river between the 2nd and 3rd drainage (on 5 side). 4:22 2nd drainage. 4:33 first drainage. At this point in same area as first observed the adult bald eagle earlier this P.M but about 200' to E, an adult bald eagle was flying W just S of cottonwoods along W side of river. It was chased by an immature bald eagle but in 200' the adult turned and for a short distance chased the immature, all action seemed more in a playful mood rather than aggressive behaviorism. They finally flew E along N side of river until out of sight, the adult preceding the immature. A second immature bald eagle left the trees about the same place as the adult was observed (12:50) ~~and~~ some 4 minutes later and flew 200' E and alighted with a 3rd immature bald eagle. They remained in tree for approx. 2 minutes then left and flew E following essentially the same route as the adult & first immature, and again as far as I could follow with the 10x binoculars in a foggy atmosphere. I heard calls when the adult & immature were chasing each other. It is interesting to speculate whether the eagles left the area because my presence on the S side of the river or because of some other factor. The first accounter at 12:50 with the adult caused no concern on it part about the presence of either the active dog or myself. These movements may be the normal activity of these wintering eagles as they return from Perry Reservoir or adjust locally along the Kaw River. Continued E and arrived at car at 5:40 P.M. No wind today. Noted that under large cottonwoods there are drops of water as if from rain and this may be associated with phenomenon of last few days of ice covered tree with temperatures above freezing.

750209-31

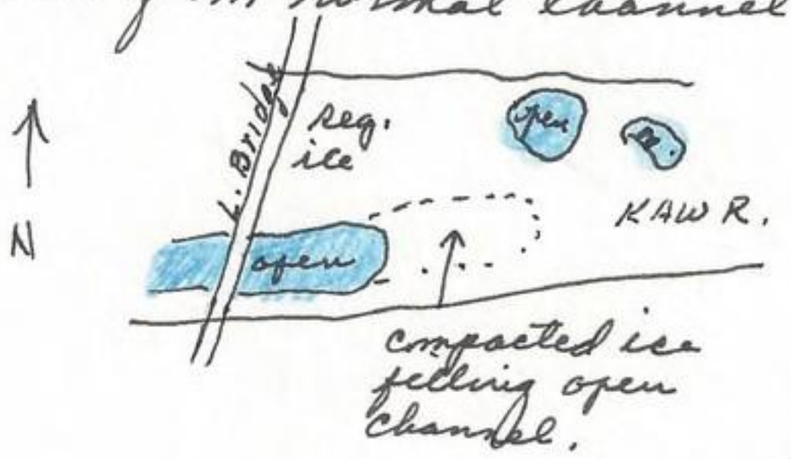
31-75

Perry Reservoir, Jefferson Co., Kansas.
Feb. 9, 1975

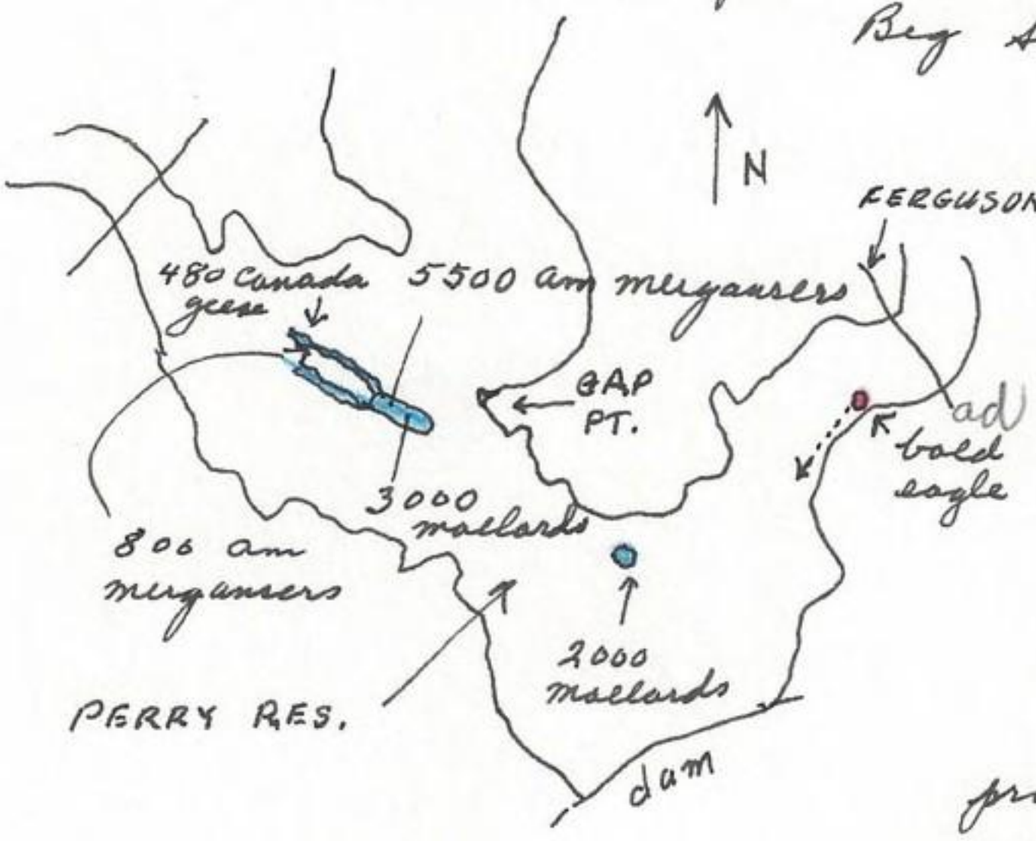
Annette and I to Lecompton to check on bald eagles and thence to Perry to check on both the bald eagles and waterfowl. Left junction of Kasold and Lecompton roads at mileage 98583.7, at 12:45 A.M no clouds in sky. Wind gentle and from the south. Temp. 17° F in shade and 25°F in sun. Will keep complete list of birds. 86.5 sparrow hawk. 86.9 Causeway over Lakeview Lake. Water completely frozen. Snow has drifted across lake and onto road.



This accumulation of snow on road could only be produced when lake is in ice. 90.5 beginning of hillside road. There have been no birds except the sparrow hawk. 91.8 completely dark redtail. Group of 4 titmice, 8 juncos, 17 tree sparrows, cardinal. 93.0 sp. hawk. 94.2 Lecompton bridge: Kaw intermittent with ice covering many sandbars exposed this winter. and would indicate higher water or local expansion of water from normal channel onto sandbars by ice being built up by ice compaction.



An adult bald eagle 18/10 mi. W on N side of Kaw River in tree 4/5 way up. This tree was overhanging edge of river and at point where meander touched the bank. 95.3 sp. hawk. 97.1 Delaware River, 50% open and more water than last trip. Redtail on dead tree at oxbow to W of bridge. 99.0 highway 24. 99.1 meadowlark. 00.3 Thompsonville. 01.1 road N., pond to left frozen 01.8 Overlook. Only two areas open on lake; One SW of the Big Slough Park and one NW of Gap Point in the same park. All other areas in new mirror surface ice. Some wind blown accumulation of snow near dam. Fractured ice minimum and these fractures filled with white snow. In first open area there are approx. 2000 mallards. Some ice heave and beach accumulations on



promentories N of Gap Point. Left and continued N on road (instead of usual route along edge of lake N of W end of dam) and at 03.7 counted birds in the open body of water and the two leads

The 5,500 American mergansers were crowded in an area approx 400 ft long and 200' wide and they were more active than usual because of the close quarters. They seemed to be doing little fishing but just moving rapedly in all directions. The 800 in the narrow leads were less active. Most of the mallards were resting on the ice. Some groups of 3 to 10 were occasionally arriving from the S. Approx 450 golden eye ducks were swimming and feeding, mostly in leads or along edge of ice in open water. 280 Canadian geese rested on the ice at the W end of the leads. The marker goose (albino on right wing and partial left) observed several times on previous trips was in the flock of Canadian geese. Two geese removed (5 feet) from the partial albino was a Ross Goose (reddish orange bill, smaller than Canadian but larger than pure white mallard). The most unusual observation was the lack of gulls which up to this trip have been associated with the merganser or at least in general area in numbers up to 150 or so. 04.1 18 juncos feeding below small trees near edge of lake. Turned around and returned to W end dam. 04.6 male marsh hawk flying 2-5 feet above cut grass fields. 04.7 10 juncos. 06.1 gray squirrel. 06.2 W end of dam. At outlet gates the water level is 889.8 and in ice. To the south at bend of Delaware River rested approx 150 mallards. Groups of 2-12 were tumbling down to river and this behaviour ~~may~~ frequently observed on lakes, may actually be adapted to alight in rivers or small ponds that are lined with high trees. This would be a good area for an observation blind. Photo. 750209-1 from top of dam about 200' east of outlet gates, showing new ice and snow filled or drifted fracture systems. Several such fracture systems converge on open water SW of Big Slough Park area. 07.7 administration. 08.6 marina. Photos 750209-2 and 750209-3 and 750209-3a of sail boat at marina. 09.8 16 juncos. 09.9 2 redtails left ground in field and flew in opposite directions. Can see an adult bald eagle flying W along S side of lake and about 50' above trees. 10.5 Photo 750209-4 of trees and ice on Big Slough area. It was above these trees where the eagle was flying. 35 juncos. 4 crows on ice to N. 11.9 30 tree sparrows, 15 juncos. 12.2 2 crows flying toward the crows on ice. 12.4 back to main road. 12.6 marsh, 2, hunting cut grass fields. 12.9 main road, crows.

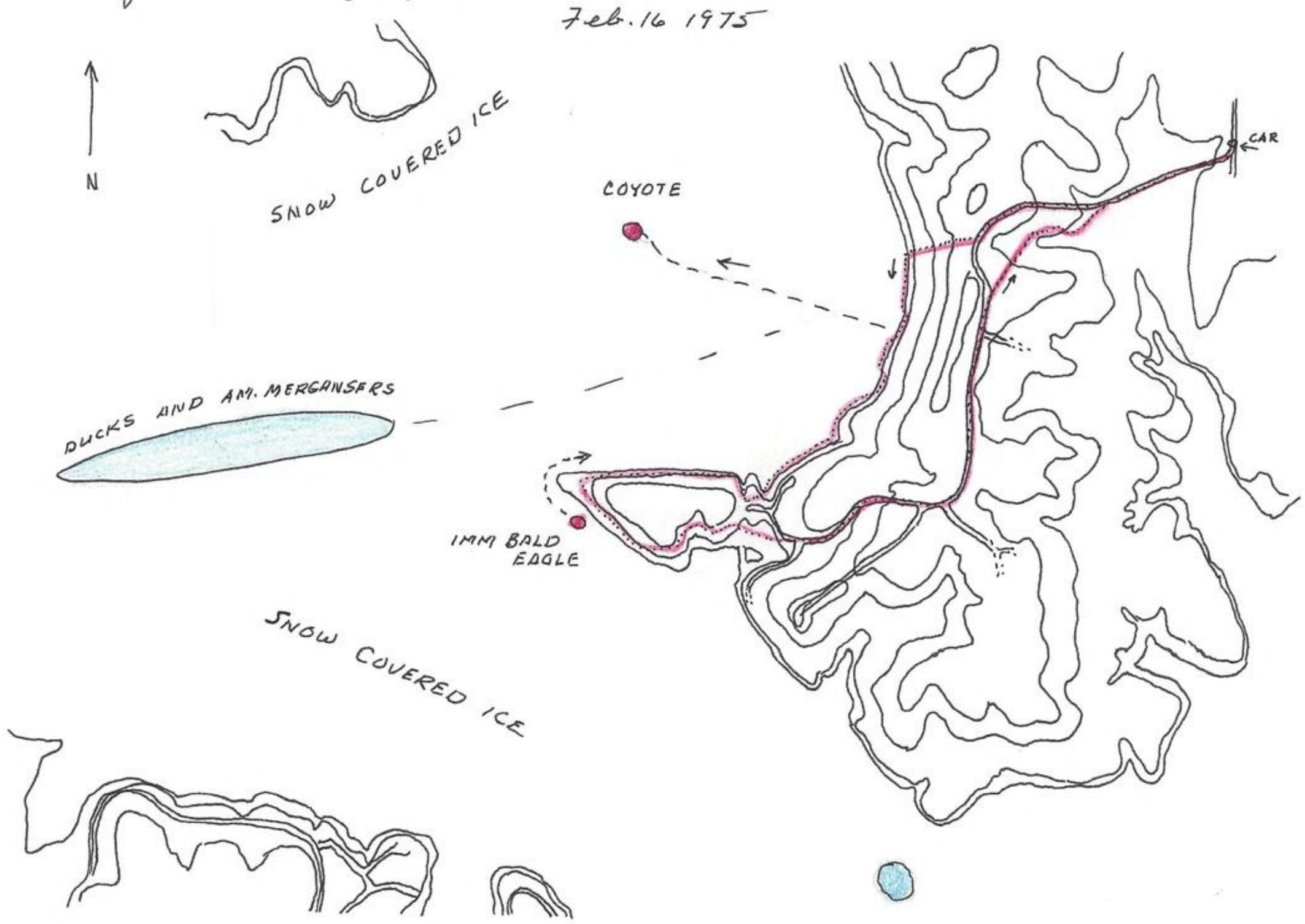
13.3 SE corner of reservoir area. 08.1 Lecompton bridge. An immature (3rd year?) bald eagle flew E across bridge (or middle of river bed and flew toward an open body of water on the N side of river channel where 5 American mergansers were feeding in the water.

33-75

The bald eagle circled twice and then made a pass over the merganser about 15 above the birds. The mergansers reacted slightly. The eagle then alighted in tree adjacent to the open water where it remained for 2 minutes afterwhich it left, circled above the mergansers and then lowered in circles to pass over the mergansers at approx 5 feet, on a low angle pass but with no apparent attempt to strike the birds. It then left, circled over trees and then gradually gained elevation as it passed in circles to the N.W. 19.4 crow E on lower river road. redtail. 20.8 Oakley Cr. water frozen. 22.8 6 starling, flicker in open feed, one mourning dove. 23.4 R.R tracks mouth gully. Pond frozen on E side. 23.7 redtail. 25.2 Leempton Rd. raw E. 28.6 Kasard + Leempton Rd. at 4:35 P.M and end of Census.

Perry Resevoir, Jefferson Co., Kansas

Feb. 16 1975



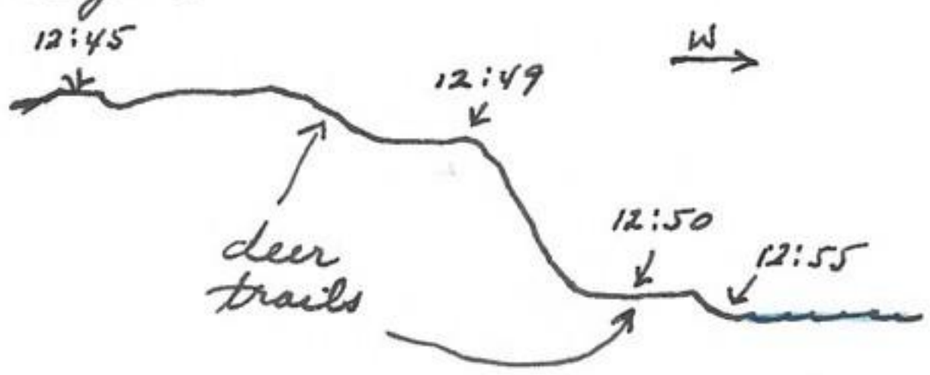
Checked birds at Perry Resevoir and eagles enroute at Leempton. Left from 402 yorkshire at Lawrence at mileage 98860.8 at 9:55 A.M temp 29°F, foggy, visibility 1 mile, wind from NE + gentle, roads icy and snow approx 1 1/2 inches in fields and on road. 62.2 starling, 62.6 Leempton-Kasard road. 62.9 sparrow hawk. 63.3 redtail. 63.9 sp. hawk. 64.1 Lake View Causeway, lake frozen and covered

34-75

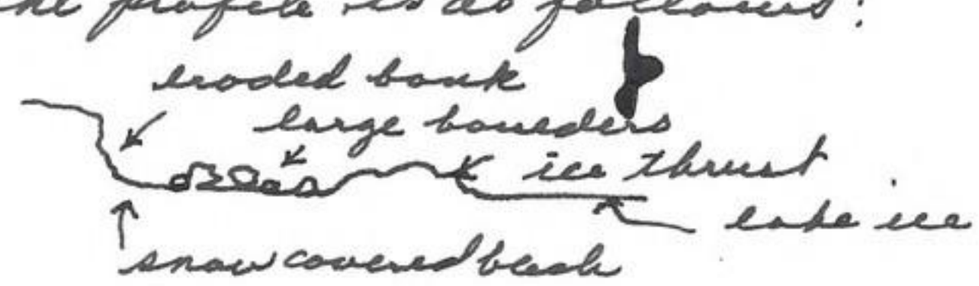
with snow. Only water open is under bridge and of two sides more on east side ⊕. 65.5 loggerhead shrike. 67.1 2 meadowlarks. 10 mourning doves. 67.3 red-bellied woodpecker. 67.6 drainage and beginning of sidehill road. Checked for eagles at mouth of creek and 1 immature bald eagle observed. Water open 1/2 way up river drainage and equal to heighth of river but ice of river 1 foot higher than outlet of stream. 5 sets of coyote tracks, 2 at river level, 2 on first bench and 1 on upper bench but all could have been made by same coyote. One place was where coyote had layed down on snow. Fox squirrel in area, 2 bluejays & 5 crows main channel 60% open, the rest choked with ice. Water higher than it has been in winter 69.1 from 1/10 mile E of mouth of Oakley Creek, one adult bald eagle NNW from mouth of creek but on N side of river. It was perched 3/4 way up cottonwood tree at edge of river and open water beneath. One american merganser in water with head under wing and turning while sleeping. 15 other am. mergansers on ice at edge of river. 35 common goldeneye feeding in river and all these birds within 200' of the bald eagle. Juncos & tree sparrows have thoroughly picked weed seeds and elevated hummocks of dirt. Started to rain. 11:05 A.M. Water at mouth Oakley Creek same heighth as river. 2 bluejays, 2 flickers, downey, beaver had removed a cottonwood tree that it had cut on the bank and which I had pushed down over the bank onto the beach below. 70.2 2 starling. 70.5 23 tree sparrows and 10 juncos 70.6 Lecompton Rd. 71.3 Lecompton bridge. 90% of water open above & below bridge. 8 goldeneye and 4 am mergansers in water 1/10 mi. E of bridge in water. 74.1 highway 24 N of Perry. 74.7 2 robins. 75.2 mockingbird. 76.7 SE corner Perry Reservoir area & now W to dam. 77.6 E end dam. Lake all in pure white snow on new ice. One fracture system at 78.0 that goes to SW corner of Big Slough Park area (water from fracture soaked snow along line. 78.4 gate (water). From top of dam low see 30 lesser scaup in Delaware River beyond outlet. One open area SW of Big Slough and only 5 common goldeneyes there. 79.1 W end of dam & now north. to point where I could see open body of water but not clear enough for census and road gates were to be closed at 12:00 so returned. 83.3 outlet gate on dam. robin on S side dam near top. 85.6 main road beyond marina. 86.2 Ferguson Rd. 87.3 Big Slough bridge. Clear white of snow to E, 8 fracture systems but closed to W. 88.1 15 juncos. 88.9 to Big Slough Park. 89.3 5 juncos & 8 tree sparrows on rd. Left my foot at 12:20 P.M at Big Slough ~~Creek~~ Park gate. See map of route covered.

35-75

12:28 drainage, 4 sets of coyote associated with this drainage. Snow covers all the ground. Just beyond at base of hill at pond (right of road) noted seven deer tracks crossing the road from N to S and measured. 61, 61, 64, 65, 66, 67, 70 mm. 2 sets of Peromyscus leucopus? on hill slope of road at timbered zone. 12:38 top hill by first telephone pole. 2 more sets of Peromyscus trails in snow. 12:39 Coyote tracks crossing road. 2 3/4 inches or 70 mm snow. 12:41 2 fox squirrels. 12:45 fox squirrel, now leaving road and crossing W on low divide. Raccoon tracks crossed here and continued down slope towards lake below. 12:48 7 deer passed to N, most on a deer trail but 2 tracks just off trail on either side. 12:49 brink of first or upper level (bench). 12:50 first or basal level. 12:52 7 deer tracks to N and another 7 superimposed going S and in established trail (deer). 3 deer followed outside of trail. Approx 30 juncos, 2 cardinals and 4 titmice, passed N along edge of lake and widely dispersed. 2 fox squirrels on this bench. 12:55 lake edge.



For the main part of the beach the profile is as follows:



many trees on beach area from erosion of hillside and of these trees, most of them have fallen lakeward and makes traversing beach difficult but at the same time provides shelter for animals. The root systems of these trees are completely exposed and they can be studied for life form. The tracks of the raccoon are now on beach and rock area of beach and are trending S ~~south~~ without deviating for hunting or searching along way. 8 slate-colored juncos (all juncos listed as juncos refer to the slate-colored and if the Oregon junco is so specified. Tracks of coyote leaving beach and going W across lake. A short distance beyond (300 feet) tracks of the coyote from lake ice to shore. It inspected the shoreline at 3 places and then gained the sidehill. 1:14 Coyote tracks (3 sets) along beach. 1:18 at pond which now is open on the W side as result of lake erosion landward. The only open water observed so far is at this point where a trickle of water enters an open patch of water 1 sq yard at edge of lake. 1:24 boat ramp. 30 tree sparrows in weeds just W of here. From here can see a live Coyote moving W across the lake from east shore.

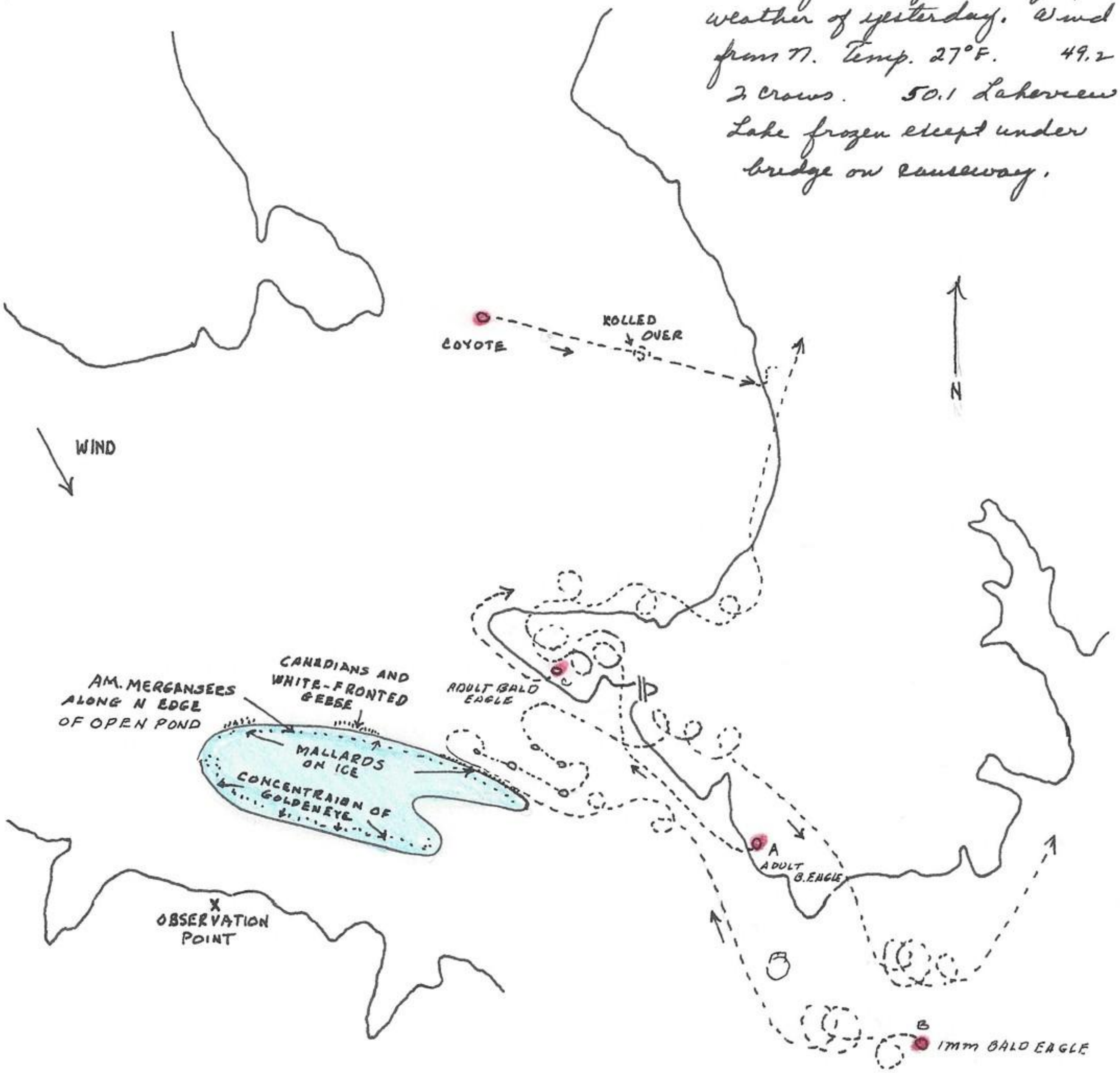
at about 1/2 way across it layed down and remained in this position until covered with the new fallen snow. It is interesting to note how a small black object is visible on the snow covered lake in one instance and then if one takes its eyes away for a second is difficult to locate the object again and when relocated is again obvious. At the beginning of the N side of Gap Point peninsula the cottontail rabbit tracks were numerous but disappeared toward W end of point. Coyote tracks were common in this area and were probably associated with the camping sites of this area. Near W end noted group of about 20 juncos. They were flying around point with wind and then dropping abruptly to snow covered ground on lee side of point. 1:50 W end of point. An immature bald eagle flew along W shore and around point to continue E. The snowing produced about 100' visibility. Although the country side was quiet I could not hear (or see) the waterfowl in the open water W of Gap Point. Fog or snow must give ducks & geese security. 1:58 group of 12 cardinals, 8 black-capped chickadees, 20 slate-colored juncos, 15 tree sparrows. 2:05 amphitheater on S side of Gap Point. Most small birds on lee side hill. 2:15 base of hill on road. 2:22 great horned owl flew S across road and alighted in tree. (1/2 way up hill), 228 top of hill and deer crossing. New snow has covered tracks. and now amounts to 4 1/2 inches (overall depth). Continued to N and thence short-cut across head drainage. 2 sets of fresh fox squirrel tracks in snow. At drainage just before gate to Slough Creek Park noted 12 Harris sparrows, 35 juncos, 3 song sparrows, 2 cardinals, 13 tree sparrows, 3 chickadees and 1 downy woodpecker. Arrived car at 3:30 P.M. Rain first part of hiking trip, snow last half trip. Noted that juncos and tree sparrows get seeds of weeds and grasses by pulling stems down to snow surface and then standing upon the stem while they feed on the seeds, or jump up and shake stems and then feed on the fallen seeds. There is definitly a shaking motion of the stems. Left and at 911 entering Ferguson road. 937 end of Ferguson road. Mourning dove. 947 at SE corner of reservoir area at 3:45 P.M., temp. 33 1/2°F 956 40 tree sparrows. 957 meadowlark and 3 starling. 962 crow. 967 8 tree sparrow 974 highway 24. 987 meadowlark 00.3 Lecompton bridge over Kow River. 80% now in floating ice which has developed since this A.M. 07.5 8 tree sparrows. 09.3 redtail (black phase like Harlan Hawk). Has been raining since Perry. Arrived 402 Yorkshire, Lawrence at 4:30 P.M at mileage 989/1.5

750223-37

Perry ~~Reservoir~~ Reservoir, Jefferson Co., Kansas

Feb. 23, 1975

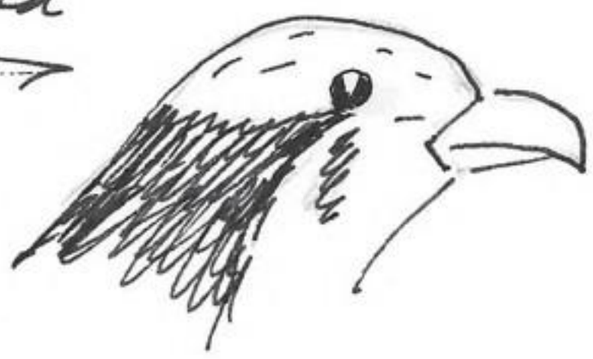
Checked bald eagles at Leempton and buds in Perry Reservoir area. mileage 99147.6 at Kasold and Peterson roads. Time 10:00 A.M sky overcast but some clear sky to extreme N and NW. Just coming out of snowy weather of yesterday. Wind from N. Temp. 27°F. 49.2 2 crows. 50.1 Lakeview Lake frozen except under bridge on causeway.



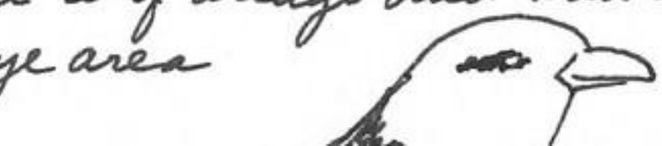
51.8 meadowlark. 52.2 two immature bald eagles directly N and over river bed of Kaw River. They were circling at approx 200' and one would approach the other and the one being pursued would turn over on its back and extend feet toward the approaching eagle who would have legs and claws extended also. One of the two flew E down river just above the tree tops to at least the right hand bend of river. The other flew up river at about the same heighth above the cottonwood trees but I lost track of this one. 300 horned larks in field and

38-75

on road. Some were on ice of temporary pond in field. 28 meadow larks were associated with the horned larks on the road. 58.3 2 redtails circling on ridge to E. 53.6 Creek at point where valley roads moves on to hillside road. From mouth of this creek at edge of river can see one adult bald eagle and one immature bald eagle 3/4 way up in cottonwood trees. The adult left its perch, flew down stream for approx 1/10 mile and then turned W and flew directly over-head at approx 150 feet. The immature remained. The adult circled higher as it moved W along ridge, having difficult turning several times because of wind currents just above the ridge. After about 500' high it set wings and glided W toward river about 1 mile from where I first observed the bird in the tree. This event occurred at 11:00 A.M. In the area of these eagles were 30 golden-eye, some number of mallards and 15 Am. mergansers in Kaw River. Ice masses, averaging 3 feet were floating in river in main current and were circular as if trimmed by contact with edge ice which was being built-up along the shore as a straight line. River level water 80' up creek (1/2 way). Cardinal, 2 song sparrows, 2 bluejays in area. Continued W to Oakley Creek and at 55.0 check river and observed an adult bald eagle in cottonwood tree. Another adult bald eagle displaced it on its perch, the displaced bird circling once and returning to same are alight-ing 30' away from its original perch. An immature bald eagle hatted in a cottonwood tree approx 2/10 mi. down stream, also in a cottonwood tree. A group of 10 American mergansers feed in river directly below the two adult bald eagles, one of the eagles intently watched the mergansers below and was continually turning its head and adjusting its posture from upright to a far over lean toward the water. At the mouth of Oakley Creek were 2 yellow-shafted flickers, 1 downy, 40 tree sparrows, 20 juncos, 2 cardinals and 12 meadowlarks. Coyotes tracks common. 55.6 2 redtails circling to E. 56.2 5 starling, 3 tree sparrows 1 redtail. 56.6 Lecompton Rd. 8 juncos. 57.3 Lecompton bridge over the Kaw River (11:00). From bridge (middle) can see one adult bald eagle in cottonwood tree just beyond mouth of Delaware River, one immature circling on ridge and circling W and one immature on ice 10' from open water. It fed on three small fish? and then flew to tree on N side of river. This bird had ~~black~~ dark feathers as illustrated →



Another adult bald eagle was in tree 1/10 mi ~~W~~ E of bridge and had dark stripe thru eye area



39-75

The two adult bald eagles can still be seen in trees at Oakley Creek at this time (11:20).

Continued N towards Perry Reservoir. 60.0 highway 24 N of Perry. 62.6 SE corner Perry Reservoir. 2 crows. 63.5 E end dam. 64.0 W end dam. Can see two openings in lake; one SW of Big Slough Park and one W of Gap Point. Continued N to 67.2 (see map), where I observed the following: 122 white-fronted geese on edge of ice on N side of open water, 36 Canadian geese, one of which was the albinistic marker, 300 mallards, 1500 am. mergansers, 18 lesser scaup, 600 common golden eye, ~~common~~, 18 pintail, 38 ring-billed gulls, 11 Crows visited the area at one time. The mallards (80%), geese rested on the ice, the mergansers mainly along N edge of open water, the goldeneye mainly on south side of open water. There is a tendency for the ducks feeding in water to move to the areas of least wave activity  wind. The ice edge on the side side of open water was slush. White-caps formed in open water. The clearing has always been to the W & NW and clearing never seemed to be realized. Low scud clouds in area most of the day. At 1:30 a male & albinistic female arrived and always remained together. The female is probably the same bird observed earlier this season. It is all a light brownish white with a dark area on wing which would be equivalent to the spectrum of wing. At 1:35 500 mallards arrived from the south. Noted some modeling of black and white in ~~the~~ one of the goldeneye ducks. At 1:37 an adult eagle was observed alighting in a dead tree on east side of lake and remained until 2:05 when it left and flew N along the beach and at Gap Point circled higher & higher and then set wings and ~~flew~~ sailed NE to distant ridge & finally out of sight. Temp 28½°F at 2:20 P.M. The albino mallard & ♂ left together at 2:20 and flew S. An immature bald eagle was first noticed SW of the Big Slough Creek (see B on map). It approached a group of mallards on edge of ice. These ducks left but the mergansers did not seem to object to the presence of the eagle. The eagle then alighted 5 times on the ice and then left to S by circling, sailing and circling upward and then set wings & sailed E out of sight. This entire performance lasted from 2:20 to 2:50 P.M. Eagle (adult) no C left at 2:55 and flew around Gap Point ~~and~~ out of sight. It is interesting to note that the eagles were not especially interested in the water birds although there were many available both in the water and in the air.

750223-40

40-75

Left observation point at 3:00 P.M. 69.4 W end dam. At gates water 889.80 ft. 71.7 SE corner reservoir area: 77.9 turnoff to lower road along E side Kaw River beyond Lecompton. 5 crows. 78.6 8 juncos, 2 cardinals, 2 crows. 79.4 dark form redtail. 79.9 loggerhead shrike 2 immature eagle in river area. They contacted each other several times in air about 200' above river. One with considerably more white in underwings, the other darker and less modeling. One flew down river, the other up river at an elevation of just above tree tops. 81.6 18 meadowlarks in one group. 82.2 11 meadowlarks in one group. 82.8 meadowlark. 84.4 Lakeview Causeway. Home at 402 Yorkshire Dr at mileage 99187.6 at 4:00 P.M.

Perry Reservoir, Jefferson Co., Kansas
March 1, 1975

Checked Perry Reservoir for eagles and water fowl. Recorder malfunctioned and record of complete census to Paradise Point is negative. Information that did record is listed.

Left 402 yorkshire, Lawrence at 12:00 A.M. at mileage 99293.8. Temp upper 30's, wind from NW and moderate. Small patches of snow on extreme N exposures, otherwise countryside free of snow. As stated before, census is not complete but have recorded information that come thru malfunctioning recorder. 07.7 5 starling. 18.4 redtail. At bay just S of the Gap Point bay, the bay was open from head of bay out to 40 feet. At the bay immediately south of Gap Point (90% open) were 8 lesser scaup, 1 redhead, 4 bufflehead. They swam out to open water of lake but returned later. The pond east of old county road was 80% open and remaining ice was in center of pond. From road S of Gap Point could see the following birds in open water of lake (see map on previous page). Approx. 4000 American mergansers generally distributed in open water but mainly along N edge of open water. They were in small groups of from 2 to perhaps 30 birds. There was considerable action between males although the females would monytime chase the males. There was not the active fishing as when in compact groups of winter. The original approx 18,000 blue & snow geese were joined by another large flock of 8000 from the south. The bird remained mostly on the edge of the ice but many swam adjacent to the ice. There was more chasing of each other and more actively in general than the geese moving S in the late fall and winter. There was considerable bathing in the water. The 140 white-fronted geese were in one group but the group consisted of some Canadian geese also. The main group of 60 Canadian geese formed the W end of the snow & blue flock. 40 redheads were in small groups and generally distributed as were the 8 canvas backs. 180 lesser scaup were also in small groups averaging 8 birds. The 300 golden eye ducks were generally distributed and in small groups of 2-6 or more and favored the S side of the open water. 24 ringbill gulls were generally distributed and were not following the mergansers. 4 bufflheads were together in one of the bays along with 8 scaup & a redhead but maintained the small group as such. 18 pintails were generally distributed. The percentage of blues & snows was approx 65 blues to 35 snows. This figure was determined by the birds in the air and seemed to hold true for the various groups. Arrive boat ramp at Gap Point at 19.3 no open water directly north of here to at least Ozaukee. 20 tree sparrows and 8 juncos here. Left at 12:30 for Paradise Pt.

42-25

The major bird activity was certainly in the open water W of Gap. Point in this lower part of Perry Reservoir. Enroute to Paradise Point noted the first activity of fishermen (3) fishing from bank. There was also and increase in cars touring the area. At Ozowhie bridge noted open water for 50' N of the bridge and 200' S of bridge with a narrow lead continuing S for another 1/10 mile. There was also narrow open water along south exposed banks SW of bridge, but there were no birds in the area. Continued to Paradise Point arriving at 1:30 P.M. and camped at high point where 2 roads cross (old homestead site) and immediately got the car and trailer stuck in the melting soil. Wind chilly however. Worked until 4:30 on car and finally got car & trailer on solid soil for the night. At the time of my arrival there were the following birds in the area NE of the peninsula where the river channel emptied into the open water of the lake (see map): 1000 ringbilled gulls, 3000 Am. mergansers, 450 mallards, 18 white-fronted geese, 30 golden eye ducks, 180 scaup, 20 pintails, 40 redheads. There was considerable activity of the mergansers, gulls and ducks. Between 1:30 PM & 4:30 I was preoccupied with the car but did not notice too much movement of birds N & S across the peninsula. Shortly after 4:30 set 100 traps in two lines (see map) both lines in general area of trapping of this fall. The entire area is now in thick matted grass and the vegetation is dry and dusty to separate for checking runways. There are very few places where runways can be seen without separately laboriously the dense matted grasses. Grass windows are evident. There is a short curly grass that is, in my estimation a detriment to Synaptomys and especially microtus communities. The upper line was relatively unproductive in areas where formerally was very productive. The N-S section of this upper line was in higher less matted andropogon and more productive. The N-S line was in dense matted grass with encroachment of locust. All traps 15' apart except 10 concentrated in and around either a badger or coyote den. Coyote tracks at entrance. Completed trap set at 6:30 P.M. and on return to camp noted that there were no ringbill gulls in the area N of peninsula nor had I noticed which way they departed. At 7:10 sun touched horizon. 7:15 mallards in upper river (lateral creek to main channel and only about 15 Am. mergansers, again I do not know where the mergansers went to - either S to Gap Point area or up Delaware. 7:30 great horn owl flew by. A marsh hawk sailed down trapping drainage earlier.

750302-43

43-25

Perry Reservoir,
Paradise Point, Jefferson Co., Kansas

collected at 8:00 A.M. March 2, 1975 min temp last night 18°F.

From line of 50 traps (N-S line) caught the following: nos 750302-1 to 750302-11

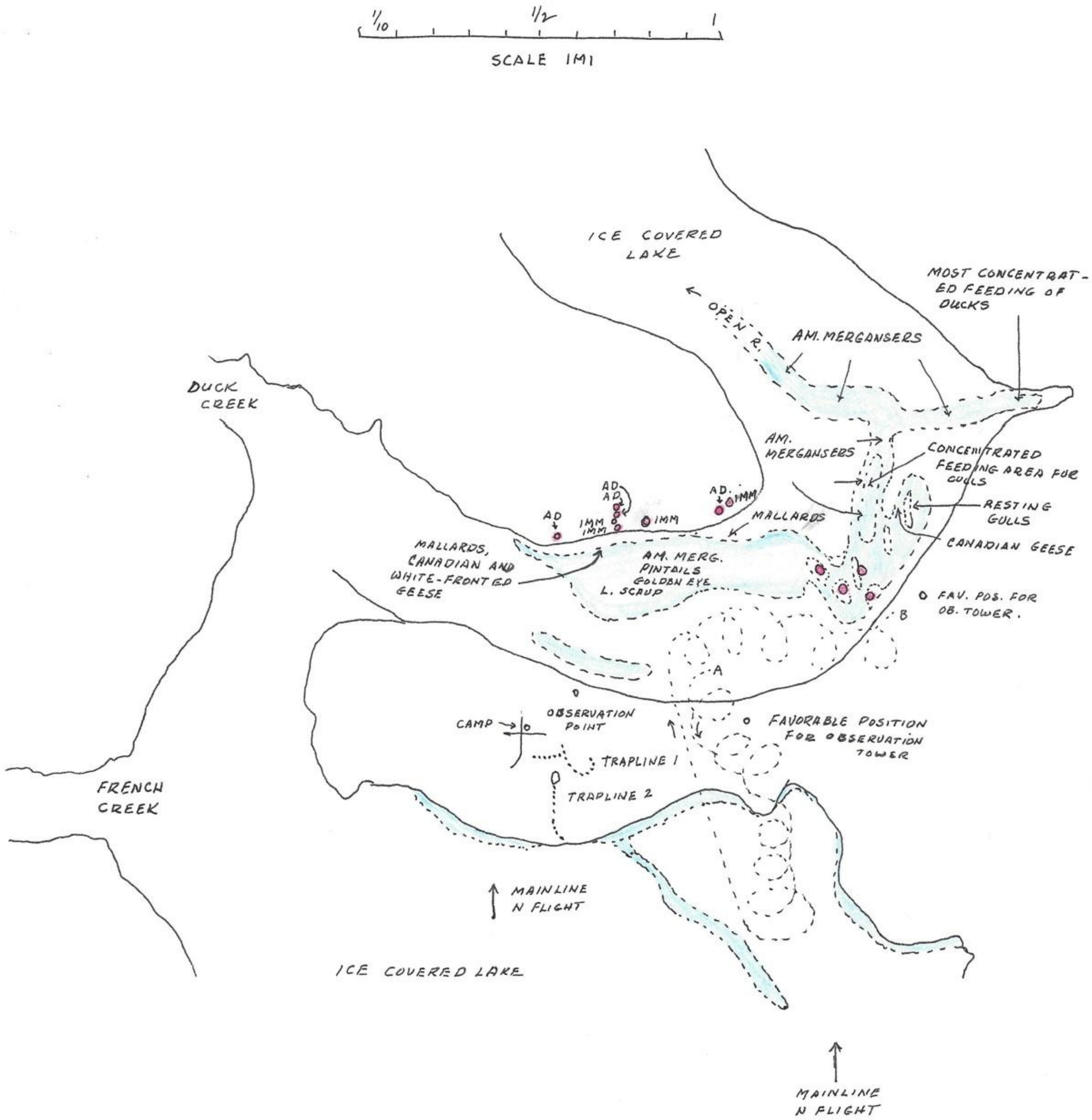
750302-1 Synaptomys cooperi 121-18-18-10-35 gms. testes 6 mm (gland 13 mm)
750302-2 " " 122-18-19-8-33 gms. ♂ testes 7 mm.
750302-3 " " 119-16-19-9-33 gms. ♂ testes 6 mm
750302-4 " " 120-18-19-9-33 gms ♀ ut. enlarged.
750302-5 " " 122-17-18.5-9-30 gms. ♂ testes 5 mm.
750302-6 " " 110-16-19-9-25 gms. ♀ ut normal
SKi 750302-7 " " 111-18-19-10-26 gms. ♀ ut. normal
750302-8 " " 126-20-20-10-37 gms ♀ 0x2 emb 9 mm
750302-9 " " 126-19-20-10-34 gms ♂ testes 6 mm
750302-10 " " 94-15-19-9-14 gms. ♀ ut. normal.
750302-11 " " 115-17-18.5-9-27 gms ♂ testes 4 mm
750302-12 " " 117-15-19-10-32 gms. ♀ (1x0 emb 18 mm)
750302-13 " " 127-20-18.5-10-34 gms. ♂ testes 6 mm.
750302-14 " " 142 21-20-10-54 gms ♀ 2x2 emb 25 mm (emb 40 mm total length)
750302-15 " " 121-15-19-9-40 gms. ♂ Testes 6 mm gland. 12 mm
750302-16 " " 128-20-20-10-35 gms. ♂ testes 6 mm
750302-17 " " 140-21-20-10-22 gms. ♀ 1x1 emb 7 mm
SK. ON. 750302-18 Microtus ochrogaster 141-32-19-9-37 gms ♀ 2x3 emb 7 mm
750302-19 Reithrodontomys megalotis? 122-56-17-13-9 gms. ♂ testes 5 mm
750302-20 " " ? 118-54-17-12-8 gms. ♂ testes 5 mm
SK. on. 750302-21 Sigmodon hispidus 225-93-30-17-66 gms ♀ ut. normal

50% of the mammals were frozen & the rest from warm to various stage of frozen state.
Nos 750302-12 to 750302-21 were from the E.-W line of 50 traps.
One cottontail observed in the area. Started trapline at 8:00 and finished at 9:15 P.M. During this time noted at least 6 flocks of mergansers (average 20 birds each flock) pass N over peninsula and alight in open water NE of peninsula. One flock of 18 pintails passed over. Returned to camp and recorded mammals.

In recapitulation of bird activity in river and bay NE of peninsula, observation started at 8:00 A.M. Prior to this time or during the night, I did not hear vocalization in the area. When checked at 8:00 A.M observed profound activity of birdlife with approx. 800 ring-billed gulls circling (about 25 feet high) in an area of the river approx 150' x 50' at a point where the backwater of the river enters the bay (see map). Approx 300 am. mergansers were in the river under the circling and feeding gulls. This concentration of gulls & mergansers was associated with what would be considered the mouth of a river and the fish, either dead or alive, were apparently concentrated at this point. The mergansers completely filled the river and the lateral

44-75

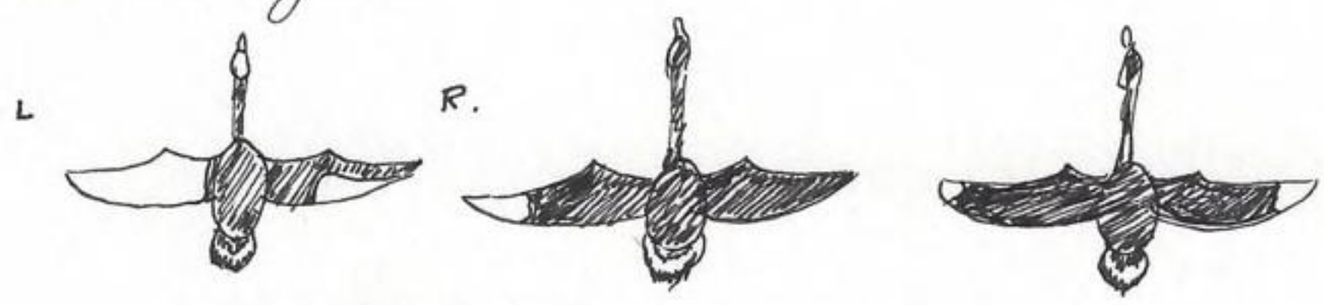
AGGREGATION OF WATERFOWL AND EAGLES IN BAY AND RIVER CHANNEL NORTH OF PARADISE POINT. THE ICE IS JUST BEGINNING TO BREAK UP AND IS EXPOSING OPEN WATER AND A NEW AND ABUNDANT SOURCE OF FOOD, MAINLY LIVE AND WINTER KILLED FISH. MARCH 2, 1975



drainage system as far as I could see. From my observation point it appeared as if there were mergansers very 3 or 4 feet apart. The heavy concentration of gulls and mergansers at this point may have been associated with dead fish as the fish presented themselves at the river-bay contact. The concentrated gull-merganser activity lasted for 1/2 hour or until 8:30 when the gulls 80% returned to their resting area approx. 150 SE of the feeding activity while the remaining 20% dispersed as individuals or small groups to search the river upstream or the open water in the bay.

Also at 8:00 there was a full compliment of am. mergansers (3000) in the rivers and open waters of the bay. when they arrived is problematical in lieu of the fact that they left the area at or shortly before sundown last night. The could have moved up the Delaware River to feed all night or flown S to the open water W of Gap Point. The latter possibility is questionable as I did not see large numbers of mergansers flying S yesterday afternoon. On trapline this morning noted at least 5 flocks of mergansers (12-24-15-16-32) flying N over the peninsula to alight in the open bay area. Also 1 flock of 16 pintails as well as small groups (2-10) of mallards and scaup.

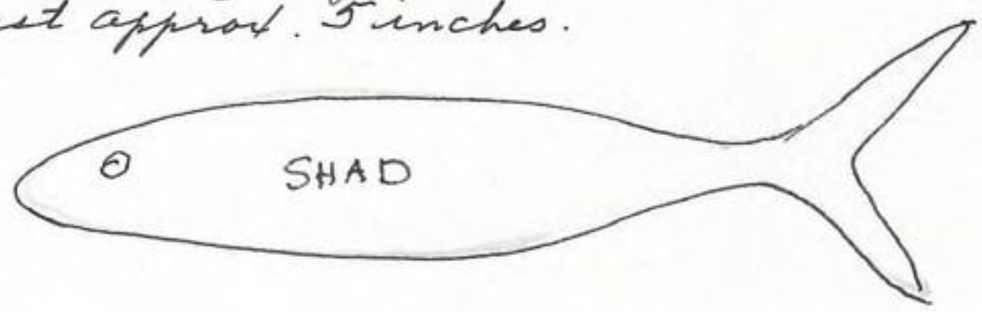
It was at 8:00 that I noticed one adult and 2 immature bald eagles actively feeding in area, either on the ice or flying around the bay area. At 10:15 left the camp and drove to shelter on N side of peninsula (see map) to record further activity, especially of the bald eagles (60X scope). The first observation was the arrival (10:15) from the S of 38 Canadian geese. They flew away from the line of sight and I had an exceptional good view of the marker geese.



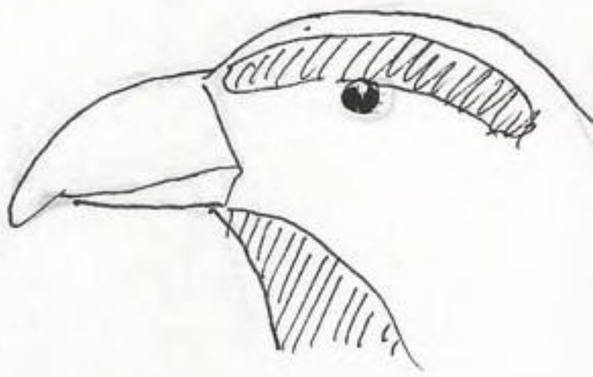
These three were together in flock as they landed and kept together while feeding but not always. The alighted about 20 feet west of the large flock of resting gulls and after about 5 minutes started to feed actively, keeping together and within a narrow limit of the area. They called infrequently.

At this time (10:15) there were 2 immatures and 1 adult bald eagle on the ice at the S side of bay. One of the young was less modelled with white than the other and was about the same size as the adult while the other immature was modelled with white and was larger than either the adult or other immature. Neither immatures has white band ~~in~~ at base of tail but did have some irregular modelling in tail feathers, nor did either immatures have white on head. Of these three eagles, the larger young would replace the smaller young at a feeding site; both young would replace the adult eagle. There was a tendency for the young to follow the adult but many times the adult would leave without the young or a young eagle would leave the other two and independently

forage in other parts of the area but eventually the 3 would regroup. There was a bumping (sideway) of the young in displacing. If the approach was from overhead the ground bird would react by flinching. Crows would make this kind of overhead approach with the eagle reacting but the crow would never contact the eagle but alight 2 or 4 feet from the eagle and make no further advances until the eagle would leave and the Crow would then move over to the spot where the eagle had been feeding. If an eagle would glide (20-30 ft) over gulls, they would leave by flight and then reform. Merganser tolerate eagles if the fish is independent of the merganser and I have observed eagles pick up fish from the surface of the water 2 feet from the merganser without the merganser reacting to the eagle. If the merganser is depending its fish in its mouth it with dodge or dive when the eagle approaches. Mallards leave area and diving ducks generally submerge. Approx 90% of the time that eagles are feeding they are on ice, the other 10% in either in flight or on low perch as a drift log (3' high). They always face into the wind and will occasionally look in various directions while feeding. They feed on small leftover fragments of fish? and once the accept the food will generally finish it, and then will move on to the next nearest object on the ice. On several occasions they seemed to pick at ice to get a fish that had been frozen into the ice and now near enough to the surface to be excavated. For some reason they will pick up a dead fish that is on the surface of the ice and completely consume it. These fish are either melting out of the ice or are being refused by gulls and crows who are also scavanging as are the eagles. The fish are all small, the largest approx. 5 inches. The color is a metalic white and the tail is deeply forked. There was one area of 2 square yards in which 8 such fish were lying on or near the surface of the ice, but not being consumed by the many gulls that surveyed the area. When feeding on the ice there was a tendency for one or the other leg to slide out from under the bird. Practically all food was ~~seg~~ held with claws on top of the food. One 3' projection of a log was used to perch while feeding on fish captured from mergansers. On two occasions the eagle was unable to perch and feed on the narrow point and in both case slide to ground where they continued to feed. On two occasions eagle walked to edge of ice after feeding and with toes partly in water picked at its feet as if cleaning the foot.



At 11:15 a third eagle arrived (immature but with more white in tail and on head than the two already ~~on~~ in the area. The dark chin & stripe above eye indicated an older bird than the above. Wings had promenent white bars.



47-75

This bird joined the 2 immatures and the adult already on the grounds. At 11:45 an adult arrived, flew over other eagle and alighted in trees on N side of bay. At 12:30 there were 8 eagles in the area, 5 in trees on N side of bay and 3 on ice at mouth of river as it enters the bay. These 3 birds were in effect resting as they did not move for 45 minutes except one which flew to roosting area in trees. At 1:00 all eagles were in trees at edge of bay on N side and these birds about 3/4 way up trees. They (the 5) remained in same position ~~for~~ from 12:30 to 1:00. At 12:40 90 Canadian geese and 300 mallards arrived from south.

Left area at 1:00 and checked south slope of peninsula for migratine activity and found that in favorable places in higher grasses the migratine trails had invaded the previously inundated areas of the lake by 200 feet lakeward from the upper shoreline. At 1:30 from S side of peninsular noted 7 eagles (4 adults and 3 imm) circling over main ridge of peninsula just above trees. The 8th came 4 minutes later & caught up. (an imm) They circled higher and slightly to the south to what would be the bay area S of the peninsula. At a point when to the naked eye they were specks they set wings and soiled in decreasing elevation to the bay area NE of the peninsula above the original feeding area of this morning. This original movement was in unison but after the end of the glide to N they separated into pairs or singles and circled again in which there was considerable contact and play and especially the final glide toward the NE in which there was constant contact or near contact. The relationship was between immatures and immatures or immatures and ~~a~~ adults but seldom between 2 adults. This activity from when first observed to the end of the second glide took place between 1:30 and 1:50 P.M. At 2:00 the eagles were circling low (100') above the trees on crest of the peninsula to N and ~~so~~ over the bay area.

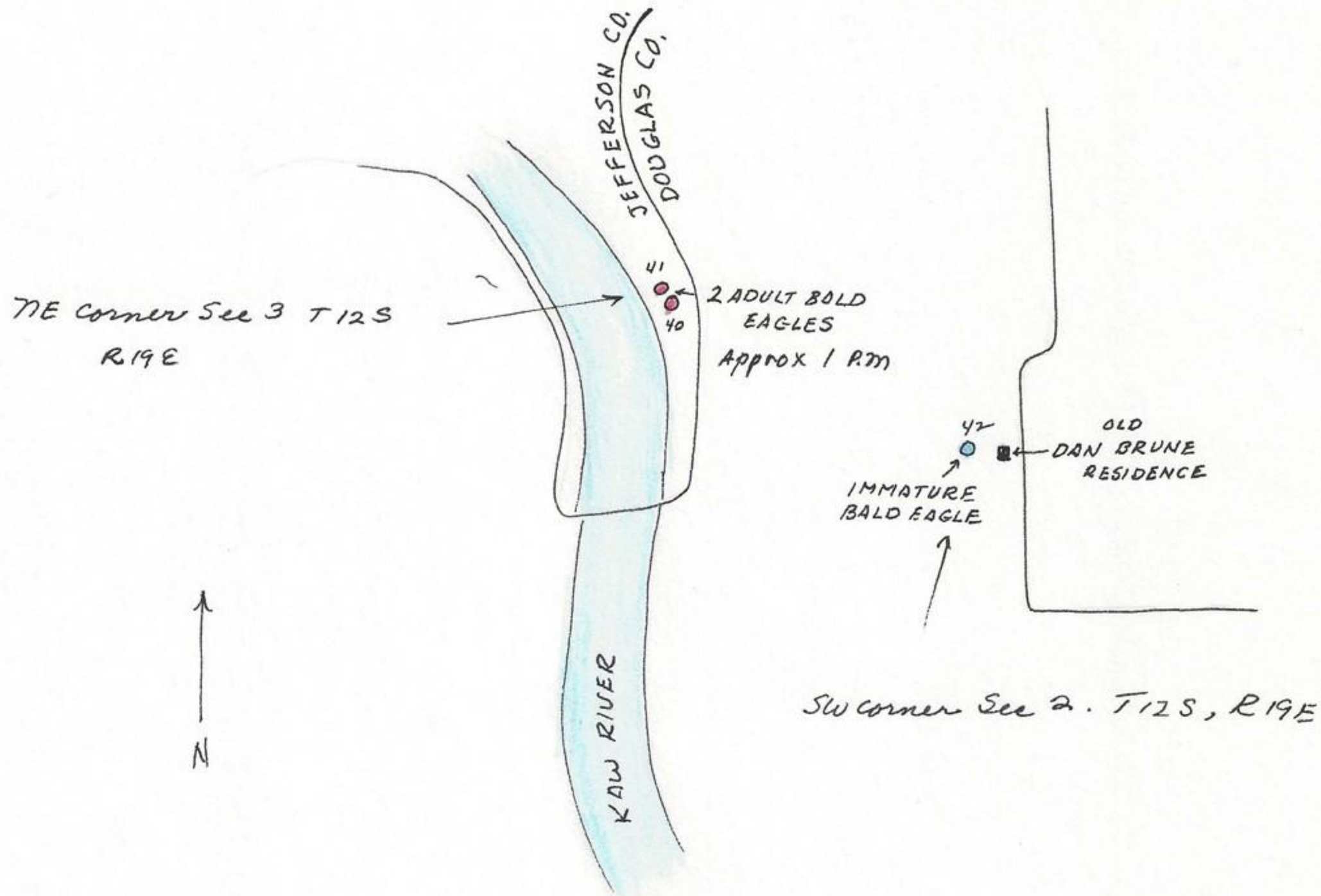
Left Paradise Point at gates at mileage 39.4 at 2:05, sparrowhawk here. ~~42.0~~ 42.0 12 crows. 43.7 Little Slough Creek bridge, Creek open. Head of bay to W open out to about 150'. no ducks. 50.7 3 crows. 51.7 Big Slough Cr. 52.6 meadowlark. 54.3 Lawrence 24. 55.4 2 starling. 57.0 Kaw River at Lecompton bridge - no eagles. 57.8 Now N. along lower road. 61.2 flicker. 61.7 4 horned larks, 62.1 horned lark. 62.5 meadowlark. 64.3 Lake View Causeway. Lake open entirely. 65.3 redtail. 67.5 home at 402 Yorkshire Dr. in Lawrence at 3:30 P.M

750303-48

1½ mi E and 14/18 mi N Lake View (at R.R. tracks), Jefferson Co., Kansas

March 3, 1975

Mr. Joe Falkenstein of Lawrence reported 2 adult bald eagles flying down river on March 1, 1975. He also reported March 3 1 immature

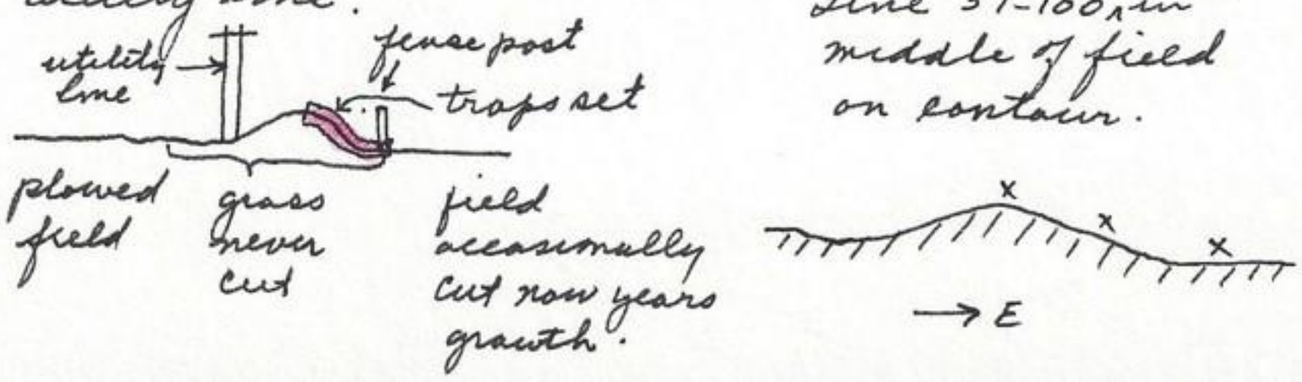


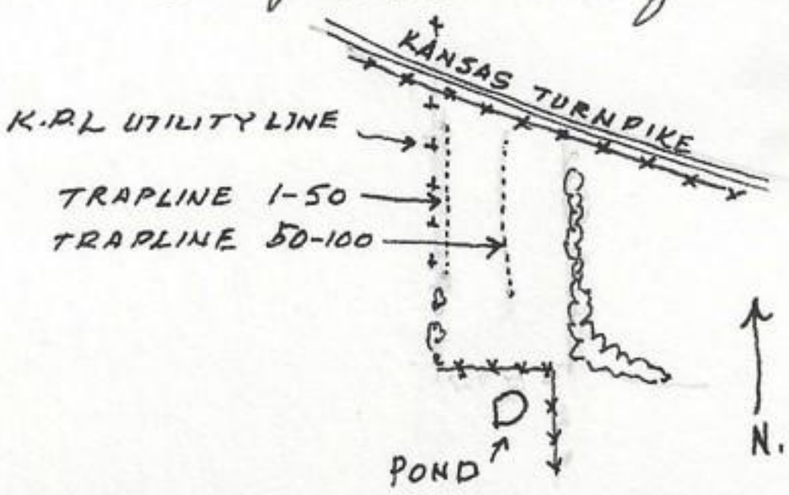
bold eagle flying near the old Dan Brune residence where Mr. Falkenstein is temporarily living. He also reports for March 1, many Canadian geese, snow and bluegeese and ducks in the area between the dike and the river.

1 2/10 mi. N and 18/10 mi W Lawrence (P.O), Douglas Co., Kansas

March 8, 1975

Set 100 traps in field E of K.P & Light utility lines and along old fence line of the right of way for the above line (see previous notes for this area). Line 1 of 1-50 trap (20 feet apart) along utility line. Line 51-100 (20 feet apart) in middle of field on contour.





49-25

Started line at 11:30 A.M and completed 12:30. at 1:00 P.M check line and no mammals in traps. The traps were all set in runways. It was very easy to set these lines as runways were conspicuous and nearly everywhere along route. at 20' there was always a runway except in about 3 cases. There has been an extremely high population in the most favorable area (contours, fence line, swales adjacent contours, higher grasses). This area is in contrast to Paradise Point on the Perry Reservoir where each trap set was made with considerable effort in which 2 to 10 feet of mat grass had to be separated to find a runway. There apparently has been a high population of microtines this winter but trails appear not as well used as they should for current habitation. I would estimate that along this route there was 20 excavations by predators (skunks most likely although perhaps some coyote). Will check at about 6:00 P.M before diurnal condition change to evening and nocturnal period to determined amount of activity. Tomorrow morning will check before sunup and again at noon. Temp this afternoon about 33° F

mammals from traplines inspected at 6:00 P.M.

Traps 1-50:

m.on	750308-1	microtus ochrogaster	140-33-19-9-33gms. ♀	ut. normal.
m.on	750308-2	" "	146-33-18-10-39gms ♀	ut normal
SK. overg.	750308-3	" "	152-35-19.5-11-50gms ♂	testes 12mm

Traps 51-100:

SK. ON	750308-4	microtus ochrogaster	145-30-18-11-43gms ♂	testes 13mm
m.on.	750308-5	" "	138-33-20-11-37gms ♂	testes 12mm
m.on.	750308-6	" "	142-35-20-11-35gms ♂	testes 12mm
m.on.	750308-7	" "	142-35-19-11-42gms. ♂	testes 13mm
m.on.	750308-8	Reithrodontomys megalotis	126-56-17-11-9gms ♂	testes 6mm

Two of the above animals were warm, the rest cold indicating that the mammals were active during the day.

March 9, 1975

Checked traps at 8:00 A.M this morning. Started to snow lightly at this time and by 10 there is approx an inch of snow on the group. Temp ~~[illegible]~~ this morning 29°F. Last night the sky gradually clouded over and early this morning the only clear sky was a thin strip to the N + E in the distance which gradually disappeared by precipitation in the air. wind from the S.E. On both traplines there was about a 2% warm animals indicating a late catch perhaps at daybreak or shortly after. Other than these, the mammals were cold and firm indicating most of the activity was during the night. I would also estimate that approx. 8% of the traps were sprung and without mammals. Many mites and ticks on these mammals.

750309-50

Following mammals from traps 1-50 along utility right-of-way & fence.

SKU 750309-1	microtus ochrogaster		148-36-19-11-38 gms ♀ ut enlarged
SKU 750309-2	"	"	142-36-20-11-33 gms ♀ ut. enlarged
SKU 750309-3	"	"	161-40-20-12-41 gms ♀ ut. enlarged
SKU 750309-4	"	"	151-36-21-11-42 gms ♂ testes 10 mm
SKU 750309-5	"	"	142-36-21-11-35 gms ♀ ut enlarged
SKU 750309-6	"	"	143-32-20-11-38 gms ♂ testes 11 mm
SKU 750309-7	"	"	148-32-20-11-38 gms ♀ 2X1 emb 9 mm
750309-8	"	"	133-32-19-10-27 gms ♀ ut. normal
750309-9	"	"	163-40-20-11-48 gms ♂ testes 15 mm
750309-10	"	"	141-31-21-11-33 gms ♀ ut. normal
750309-11	"	"	131-32-18-10-28 gms ♀ ut. normal
SKU 750309-12	"	"	157-35-21-12-45 gms ♂
750309-13	"	"	131-30-19-11-26 gms ♀ ut normal
750309-14	"	"	139-31-20-10-28 gms ♀ ut. normal
750309-15	"	"	134-30-20-11-28 gms ♀ ut. normal
750309-16	"	"	126-28-19-9-25 gms ♀ ut. normal
750309-17	Peromyscus maniculatus		145-52-19-13-23 gms ♂ testes 9 mm
750309-18	"	"	144-51-19-13-21 gms ♂ testes 9 mm
750309-19	"	"	142-52-19-13-19 gms. ? ut. normal
750309-20	"	"	132-46-19-13-20 gms. ♂ testes 8 mm
750309-21	"	"	143-51-19-13-19 gms. testes 8 mm
750309-22	"	"	153-61-19-13-20 gms. ut. normal
750309-23	"	"	135-48-18-12-15 gms. ♀ ut. normal
750309-24	"	"	134-46-18-12-15 gms ♀ ut. normal
750309-25	"	"	136-50-18-12-15 gms. ♀ ut normal
750309-26	"	"	158-62-19-13-23 gms ♀ ut. normal
750309-27	Sigmodon hispidus		201-68-28-16-56 gms ♀ ut. normal

From trapline 51-100 in middle of field along contour:

750309-28	microtus ochrogaster		151-35-21-10-40 gms. ♀ ut. enlarged.
SKU 750309-29	"	"	160-39-20-12-47 gms. ♀ ut enlarged
750309-30	"	"	129-27-18-10-30 gms ♀ 3X0 emb 12 mm
750309-31	"	"	141-33-19-11-32 gms ♀ 4X0 emb 7 mm
SKU 750309-32	"	"	160-36-21-11-43 gms ♂
750309-33	"	"	136-34-19-10-33 gms ♀ ut. normal
750309-34	"	"	155-36-20-11-40 gms ♂ testes 12 mm
750309-35	"	"	143-30-20-10-35 gms ♂ testes 12 mm
750309-36	"	"	143-30-20-11-39 gms ♂ testes 12 mm
750309-37	Peromyscus maniculatus		143-53-19-14-27 gms ♂ ut. normal
750309-38	"	"	132-44-19-13-16 gms. ♂ testes 9 mm

50-75

750309-51

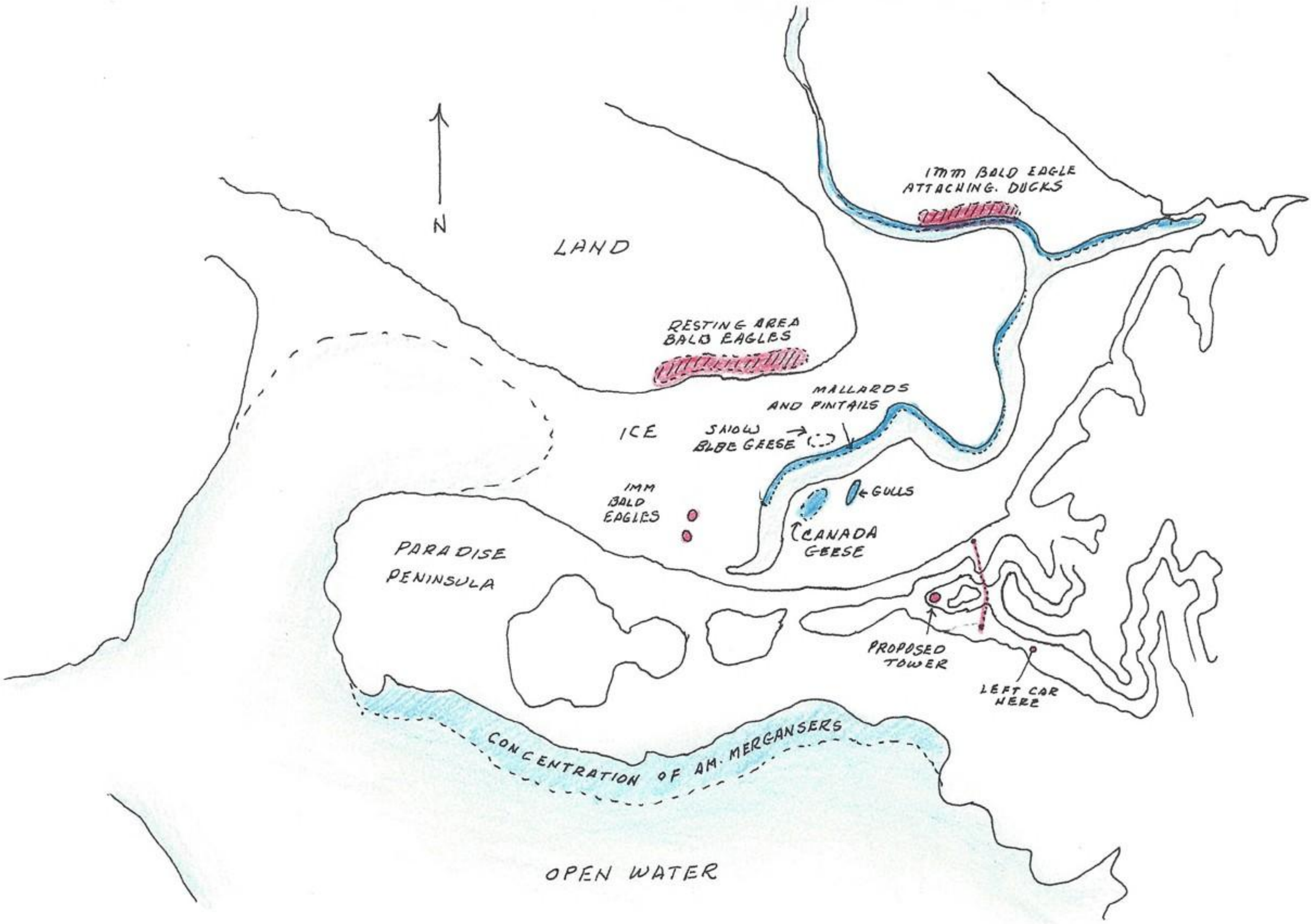
SK. ON 750309-39 Reithrodontomys megalotis ? 138-62-17-12-11 gms. ♂ testes 6 mm
750309-40 " " ? 122-57-17-12-9 gms ♀ ut. normal
750309-41 " " ? 125-55-17-12-8 gms. ♂ testes 7 mm
750309-42 " " ? 120-52-16-10-9 gms ♂ testes 5 mm
750309-43 " " ? 130-60-17-12-10 gms ♀ ~~testes~~ ut. normal

57-75

Perry Reservoir, Jefferson Co., Kansas
mar. 13, 1975

Checked on waterfowl and bald eagles. Left mileage 99 560.5 at 8:10 A.M. Wind from NE. Sky clearing, blue to N. approx 6" snow on all exposures except road from last snow. Temp. 13°F 62.2 3 cardinals, 1 robin. 63.0 2 starling. 67.3 causeway at Lake View Lake. Water open to E and about 50' from road to W. 12 pintails E of causeway. 64.1 horned lark and meadowlark. 64.2 meadowlark. 64.6 horned lark. 65.1 2 song sparrows, 2 juncos. 65.4 at bend just W of W end of Lake View Lake where corn was spilled earlier this winter. A large flock of birds were feeding on this grain and included, 70 meadowlark, 250 horned larks, 10 starling and 20 tree sparrows. 65.7 horned lark. 65.9 8 meadowlarks and 15 tree sparrows. All birds on on side of road at edge. 66.2 2 horned lark. 66.7 35 meadowlarks, 1 male redwing blackbird and 20 tree sparrows. 66.8 3 meadowlarks. 67.0 20 tree sparrows + 7 juncos 67.2 at bridge at beginning of hillside. checked for eagles afrom mouth of creek. Kaw River free of ice and sandbars covered with snow. Twice as much water flowing in creek than earlier this winter and flowing by grade to river. Snow down to edge of river. 3 sets of coyote tracks and considerable activity there. No ducks but one adult eagle 1/2 mi. E in tree on N side of river. In this area were 18 juncos and a bluejay. Continued W on road and directly N of 67.9 an adult bald eagle was in cottonwood tree 1/10 down from top. The sun was on its side. One merganser flew down river and 18 ringbilled gulls flew down river at approx 20' above water. 68.6 black phase redtail flew from mouth of Oakley Creek to a tree across the river to the north. 10 juncos, 1 redbellied woodpecker, 2 blue jay, cardinal. 68.8 Crossing Oakley Creek, 6 cardinals, 20 tree sparrows. 68.9 5 juncos. 69.1 bluejay, Crow. 69.1 30 tree sparrows, 1 cardinal 10 juncos. 69.4 meadowlark lark, 10 juncos. 65.9 2 titmice. 69.7 8 juncos. 698 30 tree sparrows, 10 juncos 70.2 Lecompton Rd. 2 tree sparrows. 70.4 2 tree sparrows, downy. 70.9 Kaw River at Lecompton Bridge. Two adult eagles to W, one approx 2/10 mi. W of entrance of Delaware River on N side and one approx 2 mi. W from bridge on N side of river. It is deffcult to locate eagles in trees because the snow covers most of the major branches up to 2/3 the heighth of the tree. Time 9:05 A.M. All water open in river. 71.4 2 meadowlarks 73.6 highway 24 N of Perry. 6 tree sparrow. 74.6 8 tree sparrows 75.1 horned lark

52-75

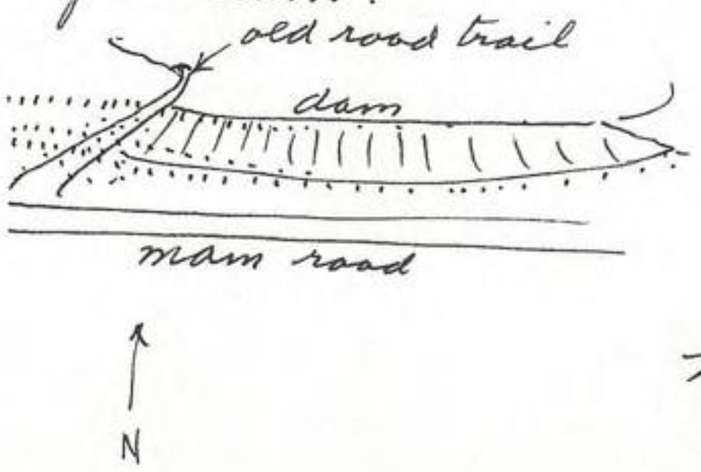


meadowlark. 75.5 three tree sparrows 4 juneos. 75.9 tree sparrow. 76.1 40 tree sparrows. 76.2 SE corner resevoir area. 8 tree sparrows. 76.7 30 tree sparrows, 2 juncos. 77.2 Ferguson Road. 78.3 Slough Cr. Bridge. all water open. 46 gulls generally distributed on water to W, favoring lee side (N side) of bay-lake area, 20 mallards, 30 goldeneye, 10 scoup. E of bridge only 3 gulls and these flying. 78.4 3 cardinals, 28 tree sparrows and 12 junco (as stated before, numbers are estimated and are the best of my conception, some lower numbers are counted) 78.9 20 tree sparrows. Bird are along side of pavement or road where snow has been remove and they seem to be collecting from wide areas to these central spots. 79.3 2 group 10 tree sparrow each. 79.5 15 tree sparrows. 79.7 4 tree sparrows. 79.9 5 tree sparrow & now N to Paradise Pt. 80.5 12 tree sparrows. 80.9 16 tree sparrow. 81.2 8 tree sparrows, 4 juneos. 81.4 50 tree sparrows, 8 juncos. 82.6 4 tree sparrows, 4 juneos. 82.9 2 meadowlarks, 15 tree sparrows. 83.5 18 tree sparrows. 84.2 Little Slough

Creek. About 250 feet of ice in upper part of bay, lake open beyond. 28 ringbilled gulls on ice. Creek 90% open and this new ice. Redtail on top of dead tree on S side of bay. 84.6 12 meadowlark 84.8 pond on left open and snow to edge of water. 86.1 5 meadowlarks, 50 tree sparrows, 6 cardinals, 2 chickadees, 1 titmouse and 15 juncos. many tree sparrow flocks seem to constitute this species only. 86.6 7 juncos. 87.0 Now W to Paradise Pt. 5 tree sparrow. All road clear & dry but snow to edge of road. 88.1 12 meadowlarks and 1 sparrow hawk flew up from ground together. 88.2 3 meadowlarks & 3 tree sparrow. 88.4 black redtail with dark blackish red tail. Lake all in open water and blue contrasts with snow on the countryside to edge of lake. On the lee side of this peninsula for its entire length are approximately 4000 Am mergansers feeding from shore to about 400 feet out into lake and they are generally distributed rather than in local groups. As the shoreline trends SE & S the mergansers are absent. It appears as if they are seeking protection from the cold wind from the N. Some are resting on shore but 90% are feeding. Approx. 500 mallards are in same area, 80% are resting on shore. 300 golden eye are feeding in bay and approx 400 pintails are mixed with the mallards. There may be other kinds of ducks as my observation point is on curve before park gates and the distance is considerable. No one is in area because gates to park have been closed during the period of snow for the last 3 or 4 days and these birds are taking advantage of the non-harassment by using shore water for resting and protection from winds. If people were allowed on the peninsula these birds would be forced elsewhere or into the center of the lake. When boats use the area later these birds are continually harassed and have no other choice than to migrate north against their better instincts.

Gate closed so left car and hiked to N side of peninsula. Recorded all tracks in snow from road (see map) up road to divide and down road to N edge at lake valley level. Left at 9:50 A.M.

9.52 3 sets coyote tracks. There are 15 sets of tracks made by one or several coyotes between main road and dam of pond in about 80 feet. These tracks were trending E-W + WE at what would be the area covered by the dam.



Beyond the top of the dam on road there were no track until divide.

9:45 Coyote tracks, 4 Peromyscus at divide

Tracks of coyote made yesterday were three 5-8 inches of snow to ground while those made last night are only 1/4 inch or less deep.

9:46 2 squirrel and 1 Peromyscus. 957 Coyote, cottontail, squirrel, Peromyscus and squirrel. 9:58 Coyote. 9:59 2 coyote, squirrel (squirrel most likely fox squirrel but could be gray squirrel). 10:00 3 coyote. 10:01 squirrel. 10:02 2 coyote, 3 squirrel, 2 Peromyscus (probably all Peromyscus are leucopus). 10:03 2 coyote, 2 squirrel, rabbit 10:04 Coyote, Peromyscus, squirrel. 10:05 base of trail at drift wood, coyote. Did not go beyond because I did not want to disturb waterfowl but with glasses could see 2 more coyote trails in snow on flats beyond toward water. In summary on this transect were:

27 Coyote
8 Peromyscus
12 Sciurus
2 Sylvilagus

These tracks could have been made by a few or many animals but it does show that for any particular area there are mammals present and available for food of coyotes. Coyote trails also led to all parts of the area and show various degree of maneuvering such as a quick surge forward, running, slow walk, attack movement as if hunting for squirrels or rabbits. The nearness to thousands of ducks may also be a factor in there presence there. There were no deer tracks in this area although they have used this side hill at other times this winter & fall season.

Took up a position at base of hill and watch activity to N (see map) If one makes a proper approach and is hidden from view, the birds do not seem to mind ones presence but to fully expose oneself would put the geese & ducks to flight. At 10:55 49 blues & snow geese (40 snows and 9 blues) arrived and settled on ice on N side of open river water. In 3 minutes they were resting belly down on the water. At 11:08 65 Canadian geese arrived and alighted on ice on S side open water. In 2 minutes they were on their bellies on the ice (I presume to protect the feet from the cold wind). In 5 minutes they left to the N side of open water and in doing so displaced a compact flock of approx 800 gulls (all ringbills except 4 Herring gulls). The gulls returned to the same resting area and alighted into the wind as well as faced the ~~fa~~ wind on the ice. The entire length of the lee side of the open water which follows the old stream bed is lined with approx. 3000 mallards and 1500 pintails, these birds being generally mixed and were resting out of water. Another 1000 mallards and 500 pintails were swimming in the open water. Only 120 am mergansers were here and were feeding. There were some scaups (lesser) 300, 20 goldeneye and perhaps other kinds but freezing wind made viewing with telescope difficult. Could keep my finger from freezing.

Upon entering this area noted 2 immature bald eagles on ice SW of bird activity but feeding on dead fish? and one immature

55-75

to NE (see map) actively pursuing and catching ducks. This is the first eagle that I have observed that has been pursuing ducks as food, all other activity has been mild gestures or interest in fish associated with the feeding activity of mergansers or gulls. This eagle entered flocks of ducks (mallards & pintails) and would attempt to capture the birds with outstretched claws and twisting & turning body. Sometimes it would fly fast about 15 above surface but instead of a fast strike would slow down when over its prey and practically stop its forward momentum and then drop down to make its actual attack. Sometimes it would follow a particular bird for 3 or 4 seconds as the ~~bird~~ duck were trying to evade the eagle by diving or splashing in the water. At one time the eagle flew into a group of rising pintails and caught one of the pintails and dropped to the ground with the bird in its talons. Four adult bald eagles were in trees N of the area and the entire population consisted of 4 adults and 4 immatures. While the eagle was pursuing the ducks a crow followed the eagle and made near contacts several times but the eagle did not react as it usually does in either the air or on the ground. A marsh hawk spent most of the time flying in the area and feeding occasionally on the ice. At one time it flew over to my position to inspect then flew back.

Left area and returned to car via open field on top. Coyote tracks mainly in peripheral area among trees & not in field proper. Reassured myself that the position (on map) for an observation tower is the appropriate one as one can see to S, W and N at a point where most water-fowl fly over the peninsula, from S to N or N to S.

Returned to car and at 11:26 A.M a marshawk flew over snow covered field and in a partially exposed weed patch captured a microtus ochrogaster. After 20 seconds it started to pluck hair from the body removing 18 such patches ~~and~~ (about 1½ sec per pull of hair) and at 11:28 started to eat at the anterior end. Intestines were not eaten but picked up & dropped to front of bird (4 rejections). At the mouse in 4 minutes in 11 fragments. Left ~~gate~~ (the hawk) at 11:30 and made several circles above weeds and then made strike at a mouse but missed. It alighted on a log 50' away and rested.

It is obvious in this area that one of the most difficult area for management is the area between low water and high flood water, now in weeds and log debris. Because of the drift timber it makes control of young trees difficult. Flooding may be a way to control this area. As I say it is the most serious and

difficult vegetation problem in the area (and is strictly man made!) Leftgate 880.6 at 11:42. 88.7 sparrow hawk in dead tree. It flew to 4 different limbs as I passed. 2 horned lark.

Will not keep complete record on return to Lawrence and will summary only. Arrived submerged road (old Ozaukie road) at 12:15 (S of Ozaukie). At 12:30 will keep track of group number of gulls resting (knee deep) in water at end of road.

12:30	2	herring and	13	ring-billed gulls.
12:31	1	"	13	"
12:32	1	"	12	"
12:33	1	"	12	"
12:34	1	"	12	"
12:35	1	"	12	"
12:36	1	"	12	"
12:37	1	"	11	"
12:38	1	"	10	"
12:39	1	"	11	"
12:40	1	"	11	"
12:41	1	"	10	"
12:42	1	"	11	"
12:43	1	"	12	"
12:44	1	"	12	"
12:45	1	"	12	"
12:46	1	"	12	"
12:47	1	"	12	"
12:48	2	"	13	"
12:49	2	"	11	"
12:50	2	"	11	"
12:51	1	"	12	"
12:52	2	"	13	"
12:53	2	"	12	"
12:54	2	"	11	"
12:55	2	"	10	"
12:56	2	"	10	"
12:57	2	"	8	"
12:58	2	"	8	"
12:59	2	"	9	"
1:00 ~~12:00~~				

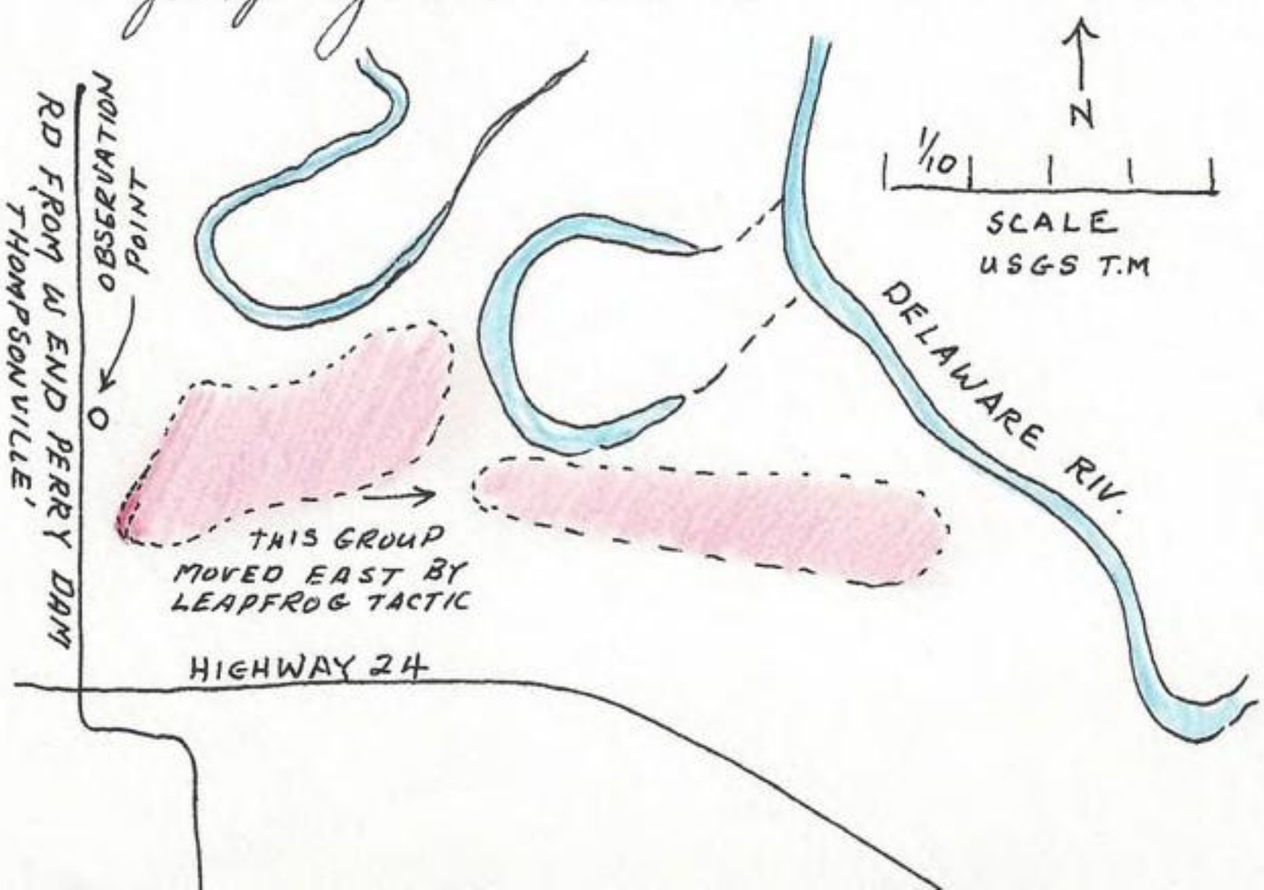
In this area S of Ozaukie (entire lake area) I can see 8 ring-bill gulls flying, one group 6 redheads, 2 redheads, 2 goldeneye and 1 killdeer.

57-75

From this observation point and looking W down road bordered by weed patches can see tree sparrows flying back and forth from one side to the other. A count is as follows: (at 1:03 P.m) 3S, 2N, 2 north, 2 south, 3S, 1N, 2N, 1S, 1N, 1S, 2S, 1N, 3N, 1S, 1N, 1S, 1S, 2N, 1N, 1N, 1N, 1S, 2S, 1N, 2S, 1S, 1N, 2N, 1S, 1N, 1N, 1N, 1N, 1N, 1N, 2S, 1S, 2S, 1N, (1:06) end of census. Summary 28 to N, 23 to S. There have been flocks of about 50 that have been fly N-S at the shoreline level. I would estimate there are 600 tree sparrows in this area along the road. During the time 12:15 to 1:06 P.m a cloud mass of high cirrus move from the horizon to 5 ↓ W to 25° of blue sky. Discrete cloud fragments preceded this solid mass. It rapidly moved to 170° excluding the sun.

Left Ozaukie. Little Slough Creek 98.4 Creek now open. 02.6 sparrow hawk. 02.7 turnoff to Big Slough Park. 03.6 gates closed so returned. Made lateral drive down Simedo Rd. & returned. 05.5 Ferguson Rd. At 1:30 sky now cloud mass to 90° and faint high cirrus the rest to 170° to N.

Bay at marina (swimming beach) 1/2 in ice (upper half). 10.1 east end dam. No white caps but waves. Water level 889.80. 30 ducks in Delaware to S. 3 pairs mallards only in lake to N and three at W end dam. 12.2 Overlook Point. 51 Canadian geese on west shore (in water) of SW corner of Big Slough Park. They acted like ducks, chasing each other by flying just over water, bathing, sometimes as if rolling over and exposing white breasts (may be mating maneuver along with bathing). The albino (partial) was present. Approx 300 mallards on bank in this area. Left 1:55 P.m. Continued W & then E thru Thompsonville 13.8. At a point N of highway 24 (2:00 P.m) observed approx. 30,000 blue and snow geese in field, some remained at 150' from road as cars passed by. On ground the percentage of blues to snows appeared to be about 60 blues, 40 snows, in air just the reverse so an average of 50-50 would be about right. They moved progressively to the E jumping over the mass as horn larks or other birds are proved to do.



There is considerable variation in plumage of blues and some in the snows. The yellowish orange head varies in both kinds. The dark neck of blues extend to top of head & sides in various degrees as is true of amount of white in belly and neck regions. Some white geese have a faint greyish modeling.

58-75

many pintails and mallards (1000) in same group ~~with~~ of geese.
Left and continued S. 16.4 3 mourning doves. 17.0 Delaware River at Perry. The broad valley of the ~~wat~~ Kaw River is populated with meadowlarks and horned larks along side of road more than I have ever observed before. 20.6 ~~20.6~~ leaving Lecompton Rd on lower river road. 22 ~~20~~.8 adult bald eagle. 27.1 Lake Veen Lake causeway. Open water now 300 W of causeway. 3:10 ~~05~~ 402 Yorkshire, Lawrence 99634.3. Temp 26°F.

Perry Reservoir, Jefferson Co., Kansas
March 16, 1975

Annette and I made trip to Paradise Point to check on waterfowl and bald eagles. Will record only noteworthy observations and not try to record a complete census. Left home at 99681.3 mileage at 2:10 P.M. no wind. Sky overcast, temp 48°F. Took route thru midland, Oskaloosa etc. Snow total on north exposures and on S half of valleys (60%). Cornices on S exposures. All ponds open. 99.7 sparrow hawk. 00.1 sparrow hawk. 05.8 red-tail. 13.5 point overlooking lake at Paradise Point (just before gates). From here can see 40 blues & snows, 60 Canadians, approx. 3,000 am. mergansers, 1000 mallards, some lesser scaup & pintails, goldeneye, marsh hawk. 40 ring-billed gulls. The mergansers were in same position as observed mar 13 and today wind in not a factor so I presume the fishing is better here (and resting beach) than elsewhere in the bay. Continued around peninsula by car and noted the usual 7 or 8 ringbills flying N-S in lake at W end of peninsula. no ducks here or N of peninsula until NE part of bay. From the picnic shelter overlook on N side of peninsula counted 2140 ringbill gulls at at least 4 Herring gulls, all resting in shallow water about 100' east of where the Delaware River now turns W into the bay area. Included in this count were 2 small groups and approx 80 flying up & down the river to the north. At this time the activity was one of resting. One boat was returning from the river area and as a result there were no ducks or geese in the area. This is the first boat I have seen in this area this winter and it has been only the last day or so that boats could enter this area. I would consider March 15 as the first day the area could be used. As a result of perhaps just a few boats, this refugia has changed from an area of high populations of water-fowl and raptors to one which is lifeless except for the gulls who moderately tolerate mans presence. I would recommend this area NE of the peninsula be held invialate to mans trespass until April 1.

59-75

Fox squirrel in area. Left and at gates at entering once to Paradise Point noted a sparrow hawk. Left gates at 18.2. at 4:00 P.M. No birdlife in Little Slough Cr. Bay and out into main lake as observed from the cemetery road. No birds in Big Slough either on east or west side as far as I could see. No fish surfacing at any contact at the lake and waters were perfectly still to make such observations. At Gap Point (NW corner of Big Slough Park) at boat ramp the ice was still in lake out to 120' and fractured. This is the only ice observed on lake so far. Approx. 150 lesser scaup, 30 am. mergansers, 30 redhead, one bufflehead, 5 ringbilled gulls, 20 golden eye all in bay near shore NE of here. Temp of water and ice blocks at edge 6" deep = 37½° F. Redtail just 1/10 mi N of gates to Big Slough Creek. Park. At 1 mi N of Big Slough Creek bridge noted a redtail in tree 100' from road. No eagles in Big Slough area. No decoys but 15 gulls in Slough. At swimming beach at marina the ice (original winter) is still in upper part of bay and about 50' less than March 13. Across dam noted the following lone ducks along base of dam. hooded merganser bufflehead, goldeneye, scaup. Water at 890. No ducks in Delaware below to S. 40' of ice at W end dam and some fragments out in lake to 200'. Continued up over and down and around toward Thompsonville. At about 1/10 mile E on ~~from~~ Thompsonville road (from where road turns N to reservoir up hill) noted approx 8000 blue and snow geese in field 3/4 distance between here and highway 24. Counted snows & blues as they leapfrogged to W. Out of 212 geese that moved from one part of the flock to another. 101 were blues and 112 were snows. Sparrow hawk here. The only thing green in the landscape is winter wheat. Delaware River at Perry is a decided green color in contrast to clear water of winter. At 53.1 turning E on lower road S of Lecompton at 6:05 P.M. 53.7 redtail. Lakeview Lake placid & no ducks. Redtail at Peterson and Kasard Rd. Home at 99770.8. There has been a decided scarcity of tree sparrows and juncos, meadowlarks & horned larks in contrast to Mar 13 when they were at road edge because of snow. No bald eagles today. They may have moved north since March 13. First nuptial activity between ♂ & ♀ Eng sparrow. There is a decided lack of activity at feeder at home since the recent snow has left the ground and the temperatures have increased

Lawrence, Douglas Co., Kansas
March 20, 1975

At 4:30 A.M at 402 Yorkshire Dr. heard snows and blues pass N over house. The calls were approx. 1 per 1½ seconds.

English sparrows and starling are actively cleaning out martin house and are carrying in new materials.
Univ. Kansas, Lawrence, Douglas Co., Kansas
March 21, 1975

750321-1 Eptesicus fuscus. 109-43-10-15-10.5 gms ♂. wing sp 310 mm. From base of Campanile on Campus and alive. Collect at 9:20 A.M.
Perry Reservoir, Jefferson Co., Kansas

March 22, 1975

Annette and I made overnight trip to Paradise Point, leaving Lawrence at 2:20 P.M at mileage 99850.6. Slight wind from S. Temp. 60°F, high cirrus clouds just beginning. At Big Slough Creek bridge noted 4 ringbill gulls flying in bay to E. At Little Slough Creek bridge noted 250 ringbill gulls, 80 American mergansers 7 shovellers and 8 pintails. At 1/2 mi. E of Paradise Point gate noted a sparrow hawk. Notes are not complete census today except raptores. Arrived camp site (S side peninsula). 48 am. coot feeding along lakeshore below, some in water but mainly in shallow (1") ponds on lee side of sand bars and in new debris pushed up on beach by wave action (occasional white-cap). One walked across sandy beach (15') and fed on material in vegetation landward. The remained in same areas.

Left to set traps and at picnic shelter on N side of peninsula observed the following birds in bay area to the NE:

1500 ringbill gulls resting in two separate groups where river enters bay area, some actively feeding in area.

4 adult and 1 Herring gull. There could be others in the flocks of ringbills.

45 American mergansers generally distributed and feeding.

80 mallards resting in 4 groups, some pairs swimming + feeding

40 pintails in small pods of 6-10 and actively moving as a pod. It is noticeable among the other waterfowl.

25 shovellers in small groups.

20 green wing teal

25 gadwall ducks

20 baldpates

6 Canada geese.

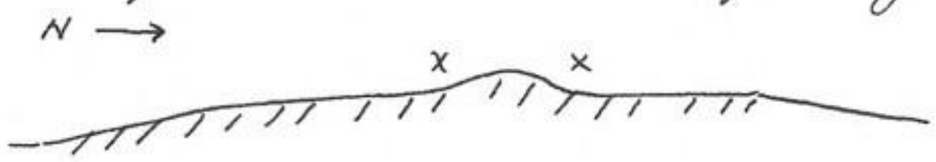
no coot, eagles.

Continued to gates + thence S. Farmer plowing tops of contours to E and 61 ring-bill gulls followed the plow both in the air and on the ground.

Along lake at turnaround were 30 coot, 15 shovellers, 80 American mergansers and 6 mallards.

From turnaround set 50 traps in two lines, one on each side of old fenceline elevation (fence gone from raising + previous flooding)

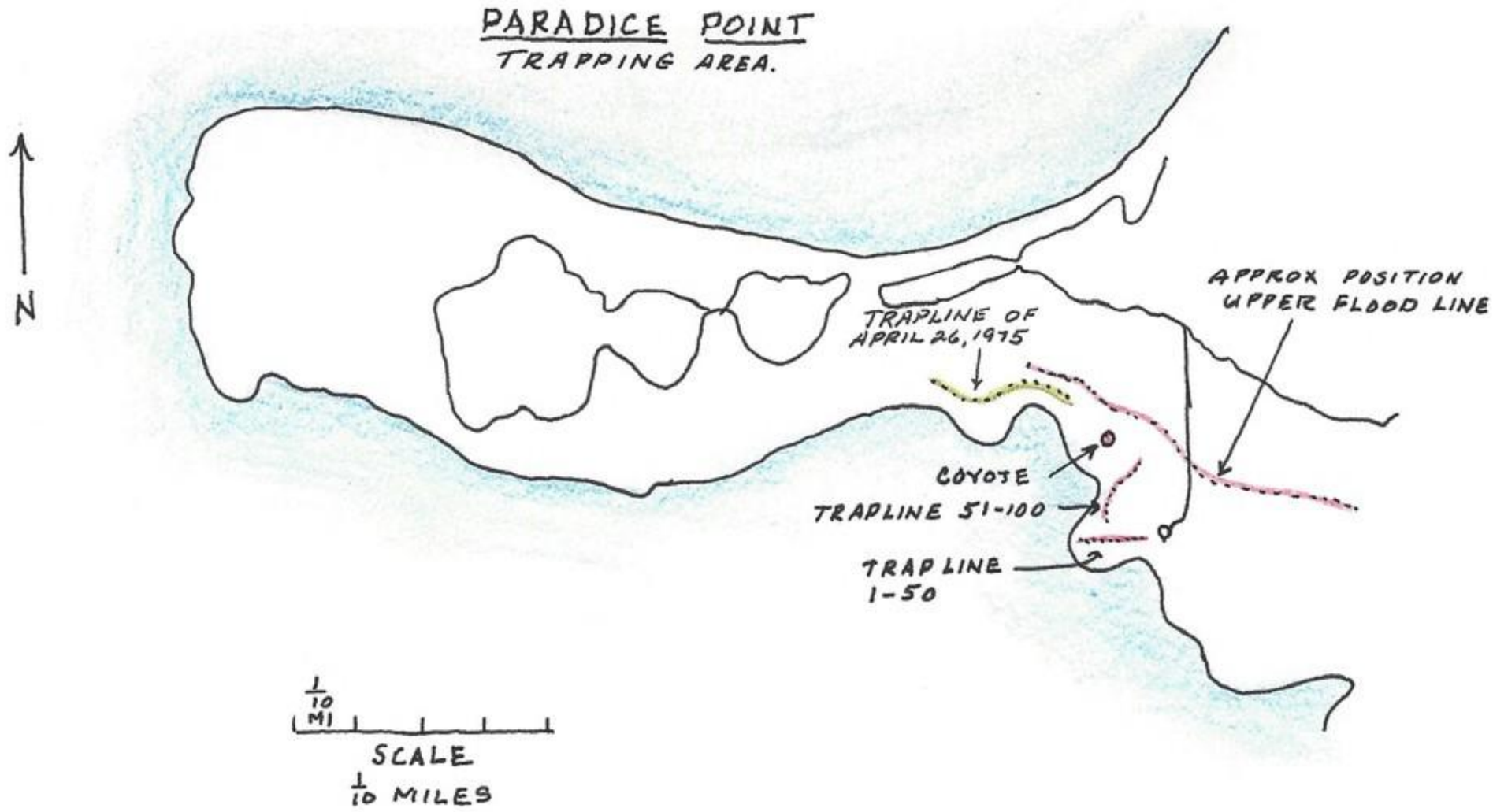
N →



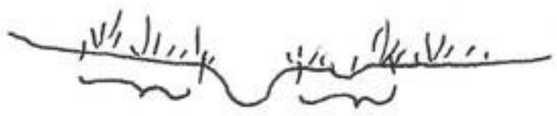
The beginning and end of this line is respectively 1/10+ and 3/10 from previous flood water line.

750322-61

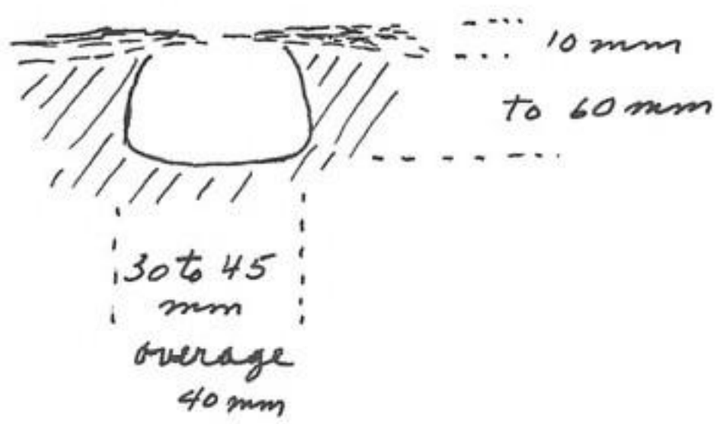
61-75



an area representing reinvasion of microtines after the last high water. A second line of 50 traps 51-100 was place in an area bordering a drainage and supported a few higher weeds and greater grass cover.

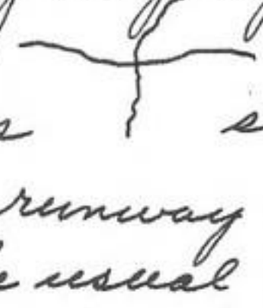
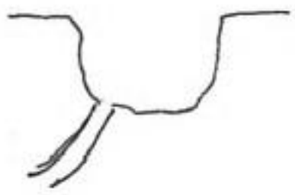


Both areas support approx the same community composition and degree of mammal activity. This area was favored by a marshawk, who on several occasions (4) had captured and eaten microtus ochrogaster. Some of the measurements of runways are:



This pattern ranged from a deep trench covered with vegetation, generally a fine mattlike grass to superficial packing of the soil or vegetation. The average condition was one of conspicuous runways entrenched and exposed 80% (to 90%) of the route. Infact these runways were so conspicuous that they could be seen 20-30 feet ahead and traps set could be seen 40' ahead. Whole runway systems could be viewed at any one point. Such exposure could only produce a high predation rate by hawks in the daytime and owls and carnivores at night. To excavate these therefore would consume considerable energy and exposure. The plants and grasses were sparse and any stalk of Andropogon offered areas of considerable habitation. Green grass just beginning 1-2 inches some small green weeds This area supported some weeds, now prone and offering no overhead protection. Many trails appeared to be paved with a wet mud, others lined (bottom) with pellets on new

soil. There were many instances where two trail systems paralled each other, one being used more than the other and on several occasions a Peromyscus was captured in the less used trail and a microtus in the well used trail, however, this may have been coincidental as many othe Peromyscus and microtines were captured in the same well used trails. There were many instances of trail systems crossing each other at 90% angles, each trail differing slightly in degree of use as if 2 systems were superimposed. 


, The most characteristic feature in the area was small deggings with small pellets (dirt) in piles or along runway as if new chambers were being excavated. There were not the usual house-cleaning activity one observes at the change of winter to spring where old nests and dry grasses are kicked out from the underground chambers. Predation consisted of approx. 8% of community in the form of nest excavations. These excavations consisted of 1 per cent badger, 2 per cent striped skunk and 5% coyote. Identification of digging source would have about a 20% error as some shallow deggings could be made by either of the 3 predators. Excavation of depth with uniform 8" diameter were those of badger. Shallow excavations with considerable masses of surface soil and grasses (2"-5") strewn about & contributed to coyote and shallow conical deggings of uniform excavated soils to skunks. Both the skunk & coyote were observed in the area (150' from trapline). Many coyote deggings 10"x8" showed new microtine holes + trails formed in the bottom of the excavation as if the digging attempt had failed and the microtines reformed their usual entrance but now at the bottom of the excavation  Some multihole mounds showed ettensive digging by coyotes but less success than isolated nests.

Traps were set between 4:45 and 6:00 P.M. after setting last trap inspected a third of the traps (1-33) but no mammals had been captured at that time which is approx. 1½ hrs before sundown. Returned to camp. Gulls flying E past camp at an average of 1 per 5 minutes and usually 1 or in pairs (6:15 to 6:45). Returned to trapline at 7:25 to 7:50 and collected 8 mammals (6 microtus ochrogaster and 2 Peromyscus maniculatus) Several coyotes called at 7:45 P.M just E of trapline on hillside of deciduous trees. Returned to camp and twilight at about 8:10 P.M. At camp noted approx. 40 grackles settling down to roost in small trees and 5 other groups of grackles and redwings flying into the general area of the roosting grackles. There are very few small birds in area, no juncos or tree sparrows and only 2 black capped chickadees

750323-63

63-75

Paradise Point, Jefferson Co., Kansas

march 22, 1975

From trapline of 100 traps (20' apart) set last night (collected this A.M 8:00 AM).
nos. 1 to 7 captured between 7:25 to 7:50 P.M last night. min temp last night 52°F. Constant wind from S.

SKU	750323-1	microtus ochrogaster	152-36-21-11-40 gms	♂ testes 14 mm
SKU	750323-2	"	"	155-34-18-11-38 gms	♀ ut enlarged
m.on.	750323-3	"	"	154-34-20-11-37 gms	♂ testes 13 mm.
"	750323-4	"	"	162-44-21-12-41 gms	♂ testes 11 mm.
"	750323-5	"	"	131-30-19-11-26 gms	♀ ut. normal
"	750323-6	"	"	148-33-19-11-23 gms	♀ ut. enlarged.
"	750323-7	Peromyscus maniculatus	150-60-19-14-22 gms	♂ testes 9 mm.
"	750323-8	"	"	140-54-18.5-13-17 gms	♂ testes 11 mm.
m.on	750323-9	microtus ochrogaster	165-36-19-11-42 gms	♀ emb. 4x0 emb 1 mm.
SKon	750323-10	"	"	147-33-20-10-41 gms	♂ testes 13 mm
"	750323-11	"	"	153-36-19-10-44 gms	♂ testes 14 mm
"	750323-12	"	"	158-36-20-11-46 gms	♀ emb 2x2 2 mm.
	750323-13	"	"	148-38-20-10-36 gms	♀ 1x3 emb 3 mm
m.on	750323-14	"	"	163-40-21-11-45 gms	♀ 0x5 emb 6 mm
"	750323-15	"	"	152-35-19-10-32 gm	♀ 2x2 emb 7 mm
"	750323-16	"	"	147-29-19-10-34 gms	♂ testes 11 mm
"	750323-17	"	"	133-29-19-10-28 gms	♀ ut slightly enlarged
"	750323-18	"	"	131-27-18-9-33 gms	♀ 1x1 emb 18 mm
SK.on	750323-19	"	"	159-35-21-11-45 gms	♂ testes 15 mm
"	750323-20	"	"	151-38-20-11-48 gms	♀ 0x3 emb. 18 mm
"	750323-21	"	"	153-39-20-10-40 gms	♂ testes 13 mm
"	750323-22	"	"	157-36-20-11-39 gms	♂ testes 12 mm.
m.on	750323-23	"	"	147-31-18-10-34 gms	♂ testes 11 mm
"	750323-24	"	"	141-31-20-10-30 gm	♂ testes 9 mm
"	750323-25	"	"	142-31-20-10-30 gms	♀ 3x3 emb. 1 mm
"	750323-26	"	"	158-38-19-10-37 gms	♂ testes 13 mm
"	750323-27	"	"	140-32-20-10-30 gms	♀ ut. enlarged.
"	750323-28	"	"	135-31-18-10-32 gms	♂ testes 12 mm
S.on	750323-29	"	"	152-39-20-10-36 gms.	♂ testes 14 mm
	750323-30	"	"	136-31-19-10-30 gms.	♂ testes 11 mm
	750323-31	"	"	139-32-18-10-28 gms	♀ 2x0 emb 4 mm
	750323-32	"	"	151-36-19-10-40 gms.	♀ 3x1 emb. 14 mm.
	750323-33	"	"	145-35-19-10-33 gms	♀ ut. enlarged.
	750323-34	"	"	152-35-19-10-33 gms	♀ 3x0 emb 1 mm.
	750323-35	"	"	111-25-17-9-12 gms.	♀ ut normal.
	750323-36	"	"	54-9-7-1-2 gms	♀ ut normal
SK.on.	750323-37	Sigmodon hispidus	233-98-31-17-76 gms	♀ ut. normal.

64-75

sk. on 750323-38	Peromyscus leucopus.		164-66-22-14-21 gms. ♀ ut enlarged
" 750323-39	"	"	158-63-22-15-21 gms. ♀ ut. normal.
" 750323-40	"	"	162-68-21-17-25 gms. ♂ testes 10 mm
" 750323-41	Peromyscus maniculatus		151-61-19-15-22 gms ♂ testes 10 mm
" 750323-42	"	"	152-59-19-14-20 gms ♂ testes 9 mm
" 750323-43	"	"	162-64-19-14-24 gms ♀ ut. normal
m. only 750323-44	"	"	135-50-19-13-17 gms ♂ testes 9 mm
" 750323-45	"	"	156-60-19-14-21 gms ♀ ut enlarge, vascular.
" 750323-46	"	"	133-47-19-13-18 gms ♂ testes 8 mm
" 750323-47	"	"	154-66-19-13-18 gms ♂ testes 9 mm
" 750323-48	"	"	144-55-18-13-18 gms ♂ testes 9 mm
" 750323-49	"	"	139-55-19-13-20 gms ♂ testes 10 mm
" 750323-50	"	"	145-53-19-13-18 gms ♂ testes 9 mm
" 750323-51	"	"	148-54-19-14-22 gms ♂ testes 9 mm
" 750323-52	"	"	138-46-18-13-24 gms ♀ 3x2 emb. 19 mm
" 750323-53	"	"	134-48-18-13-21 gms ♀ 1x4 emb 8 mm
" 750323-54	"	"	137-48-18-13-18 gms ♂ testes 7 mm
" 750323-55	"	"	139-53-18-13-17 gms ♀ ut. enlarged.
" 750323-56	"	"	148-54-19-13-16 gms ♂ testes 9 mm
" 750323-57	"	"	146-53-18-13-18 gms ♀ ut enlarged.
" 750323-58	"	"	140-52-18-13-15 gms ♀ 0x4 emb 4 mm
" 750323-60	"	"	145-53-18-13-18 gms ♀ 2x3 emb 3 mm
" 750323-61	"	"	149-60-19-14-21 gms ♀ 2x1 emb 7 mm
" 750323-62	"	"	139-54-18-12-17 gms. ♂ testes 8 mm
" 750323-63	"	"	141-47-18-13-20 gms ♂ testes 10 mm
" 750323-64	"	"	143-52-18-13-19 gms ♀ 2x3 emb 15 mm
" 750323-65	"	"	156-60-19-15-19 gms ♀ 2x2 ~~emb~~ placc. scars
" 750323-66	"	"	142-53-19-15-20 gms ♂ testes 10 mm
" 750323-67	"	"	148-60-18-14-19 gms ♂ testes 10 mm
" 750323-68	"	"	145-54-18-13-18 gms ♂ testes 9 mm
" 750323-69	"	"	143-58-19-13-17 gms ♀ ut. normal
" 750323-70	"	"	152-58-19-14-22 gms. ♀ 1x2 placc. scars

Last nite the wind blew constantly and created wave action on the beach below. The robin was the first bird to sing this morning at 7:00 A.M. The mourning dove next at 7:05, the cardinal at 7:08, the crow at 7:15. The coat that fed at shore all afternoon and into twilight arrived this morning at 7:30 A.M having spent the night elsewhere.

Left camp at 7:40 A.M for inspection of trapline (mammals listed above). Check NE bay & river area and found about same numbers of ducks and ring bill gulls as yesterday afternoon. At a position of the gates at the east end of the peninsula observed a coyote

standing in open cut field and about 30' from a weedy uncut area into which the animal loped after having watched us motionless for 2 minutes. It was inspecting the same general area as the trapping area. A marshhawk was in same area as coyote a killdeer, 2 meadowlarks, 18 bobwhite (one group), 6 male redwing blackbirds and some small sparrows (savannah like) were in trapping area.

Mammals collected from trapline were about 95% firm and 5% limp indicating some activity in early part of morning. The distribution of Peromyscus & microtus seemed to be at random. In the area of the Sigmodon in slightly higher weeds, there was a high degree of prey depredation with 7 out of 10 mammals partly eaten. The other areas showed no evidence of cannibalism. White-tailed deer crossed the trapping area (sets of 7 tracks, the largest measuring 70 mm and the smallest 50 mm. The larger tracks sunk much deeper into the mud.

Left Paradise Point at gates at 8:50 AM at mileage 94.7. Will keep list of birds and numbers to S.E corner of reservoir area. 95.8 18 grackles. 95.9 meadowlark singing. 96.3 5 starling. 96.7 cardinal, robin. 97.0 meadowlark. 97.4 robin, redwing, 2 bluebirds, 4 starling. 97.9 robin. 98.3 meadowlark & robin. 99.3 robin, 00.3 meadowlark. 00.7 meadowlark. 01.1 starling. 015 meadowlark, 02.2 meadowlark, 03.2 3 grackles, 03.7 redwing. 03.9 redwing, 04.9 Big Slough bridge, 3 ringbill gulls to E, none to W. 06.1 end Ferguson Rd. 06.4 2 meadowlarks, 06.8 meadowlark. 07.0 SE corner and end of census. Winter wheat to 2 inches high, other areas with just beginning of green among dead grasses. Followed lower river road from Lecompton. At Lake View Lake noted 15 meadowlarks in one group. Arrived home 10:00 A.M at mileage 99922.8.

Lawrence, Douglas Co., Kansas

April 3, 1975

Mr. A.R. Wells of 2321 Westchester, reported first purple martin (2 scout birds that preceed the main nesting group) arrived this date. Five days later the main group will arrived (23 pairs). He has noted one bird with white in outer primary feathers on both wings and some white on throat that has used the same nesting hole in martin house for the last three years. He controls sparrows and Starling by shooting.

April 12, 1975

I noticed the first purple martin (2 birds) in the above area for the first time. Mr. Wells said the main group of birds arrived April 8 this year.

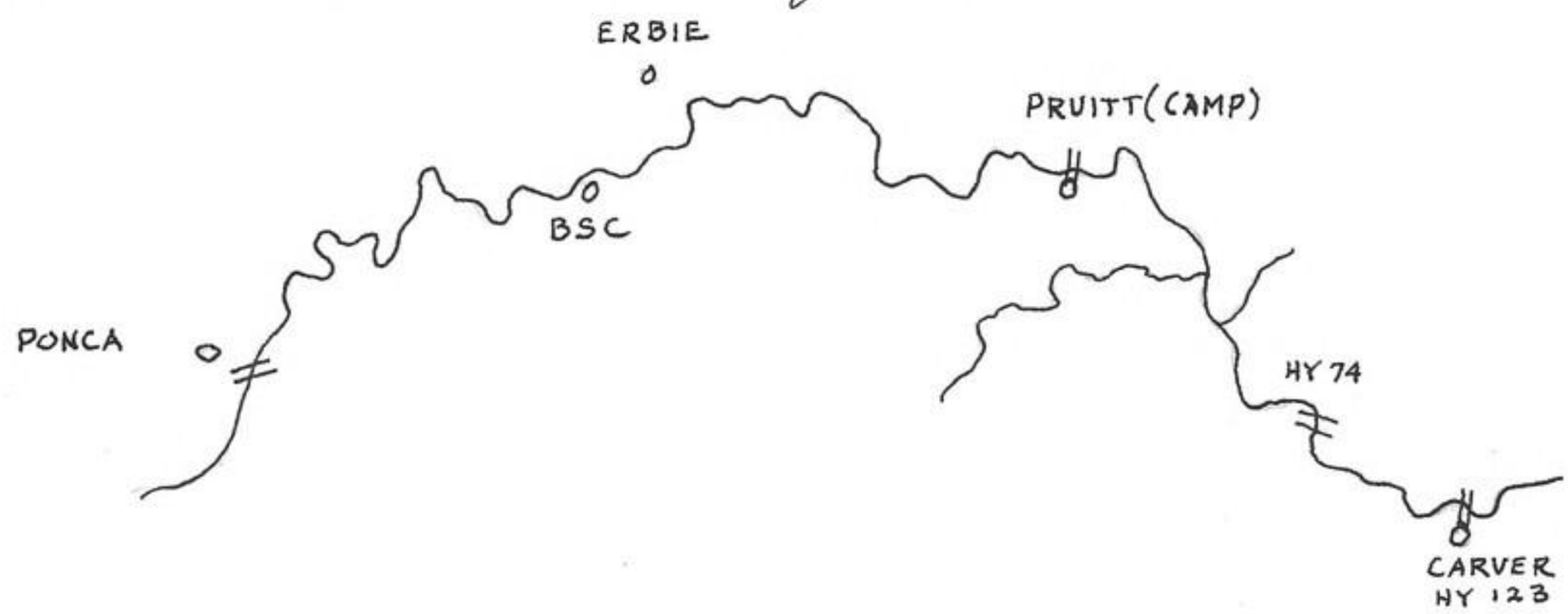
750411-66

66-75

Buffalo River, Newton Co., Arkansas

April 11, 12, 13, 1975

many made canoe trip down Buffalo River with K.U. SCA from Ponca to Carver. From Ponca to Pruitt 7 hrs. Water, with shallow rapids from Boy Scout Camp Arr with portage or walking ~~except~~ at low water bridge no. of Erbie (overbridge water). From Pruitt to Carver (highway 23) 4 hrs. water deeper, longer pools and generally more water after effluence of Little Buffalo River and Wells Creek. Low water bridge portage (water over bridge) at highway 74. 2½ hrs from Pruitt to highway 74 and 1½ hrs from here to Carver (highway 23). Takeout at Carver steep and muddy. Very little room for cars to park along highway 123. Along route dogwoods, wild plum, willows, early tree buds, ferns, early flowering phlox common. Temp 40°-60°F during day, frost at night. ~~Sunday~~ Sunny Saturday and on Sunday rain and wind. Camped at Pruitt north of river in private camp to E of road. $1.00/carload. Running hot & cold water & showers & wood.



Wakarusa River, 3/10 mi. NW mouth Elk Creek, Douglas Co., Kansas

April 20, 1975

Made following photos of piracy of Wakarusa forming a new oxbow (see original designation for locality).

750420-1 Entrance of old channel (S side) from north side of river showing well formed barrier.

750420-2 ibid.

750420-3 Exit of old channel of new oxbow (down stream end. showing barrier.

750420-4 ibid.

750420-5 Thru piracy from E side.

750420-5a ~~Downstream looking up toward piracy~~:

750420-6 First bend down stream below piracy.

There has been a grading thru piracy to lower level and at this time there is no rapids.

S end Clinton Dam, Douglas Co., Kansas

April 20, 1975

Photo 750420-7 of dam to N showing progress. From ~~bt~~ contact of dam to top of ridge (approx 250' feet) counted 104 well used runways of microtus

ochrogaster. In this same area (axis of dam continued up ridge an off road vehicle drove down slope and on the basis of wide tires and course calculated destruction of 750 sq. feet of surface area covered by runways. The vehicles and motorcycles do extensive and irreversable damage to the areas bordering the lake.

2½ mi. N and 2½ mi E Lawrence (Co. Building), Douglas Co., Kansas

April 22, 1975.

Tom Swearingen presented me with a mole captured by one of his dogs. It measured:

750422-1 Scalopus aquaticus machrinoides 175-30-23-120gms ♀ ut normal.

Perry Reservoir,
Paradise Point, Jefferson Co., Kansas

April 25, 1975

Took class to Paradise Point for collecting mammals. Camp at S side (farthest E). Birds W of dam included meadowlark, grackle, starling, sparrow hawk, turkey vulture. Level of lake at 93.5 ft. Across dam noted 5 horned grebes, 8 american coot. Between marina and Paradise Point (including Ozawkie area) noted bluejay, raven, sawbird, crow, barn swallow, 105 double crested cormorants, cardinal, mockingbird, mourning dove, green heron, myrtle warbler, eastern kingbird, redtail (flying with snake), redwing blackbird, bobwhite, wren, Baltimore oriole, killdeer, 1 mule deer, loggerhead shrike, gold finch, brown thrasher, bluewing teal, bluebird, great horned owl, dickcissel. The cormorants were observed at Ozawkie on S side of dam near where county road dips into lake on W side. They were also in lake on the S and N side of Paradise Point. This evening set 100 traps (see march 22 for position of trapline). This area was lakeward from high water debris and the western half on a contour ridge. Vegetation mainly grasses.

April 26, 1975

Collected the following mammals from the above trapline. (Paradise Point, Perry Reservoir, Jefferson Co., Kansas).

SK1	750426-1	Peromyscus leucopus	162-70-22.5-16-25gms ♂ testis 12 mm
	750426-2	Peromyscus maniculatus	136-45-18-14-20gms ♀ ut. enlarged.
SK.ON	750426-3	" "	125-40-19-15-19gms ♀ 1x2 emb. 12 mm.
M.ON	750426-4	Sigmodon hispidus	[175]-[25]-31-18-105gms ♂ testis 22 mm.
"	750426-5	microtus ochrogaster	143-35-18-9-37gms ♀ 2x2 emb 3 mm
"	750426-6	" "	166-39-21-11-48gms ♂ testis 14 mm
"	750426-7	" "	157-38-20-10-45gms ♀ ut. enlarged

SK. on	750426-8	Microtus ochrogaster	165-38-20-11-49 gms ♂ testis 14 mm
m. on	750426-9	" "	151-31-18-10-48 gms ♀ 1x1 emb. 26 mm
m. on	750426-10	" "	82-15-14-5-6 gms ♂ testis 3 mm.
SK. on.	750426-11	Peromyscus leucopus	170-74-22-15-26 gms ♀ 2x2 emb. plac. scars
m. on	750426-12	" maniculatus	152-68-19-13-23 gms ♂ testis 9 mm
m. on	750426-13	"	141-53-18-13-22 gms ♂ testes 9 mm
m. on	750426-14	Reithrodontomys	141-62-17-12-12 gms ♂ testes 7 mm.

There appeared to be considerable mortality of microtines and Peromyscus since March 22, 1975, at Paradise Point (see mammals captured of that date.

Lone Star Lake, Douglas Co., Kansas

May 3, 1975

noted osprey flying S from dam on west side of lake. The cattails are now 1/2 the size (spring growth) of last years summer growth. a plantlike skum is along edge of dam and elsewhere (10' width) probably a spirogyra. Perch and sunfish are not biting. 4 pied bill grebes in W arm of lake. Photo 750503-1 of lake from E side on ridge
Photo 750503-2 of Clinton Dam from S side dam.

Museum Natural History, University of Kansas, Lawrence, Kansas.

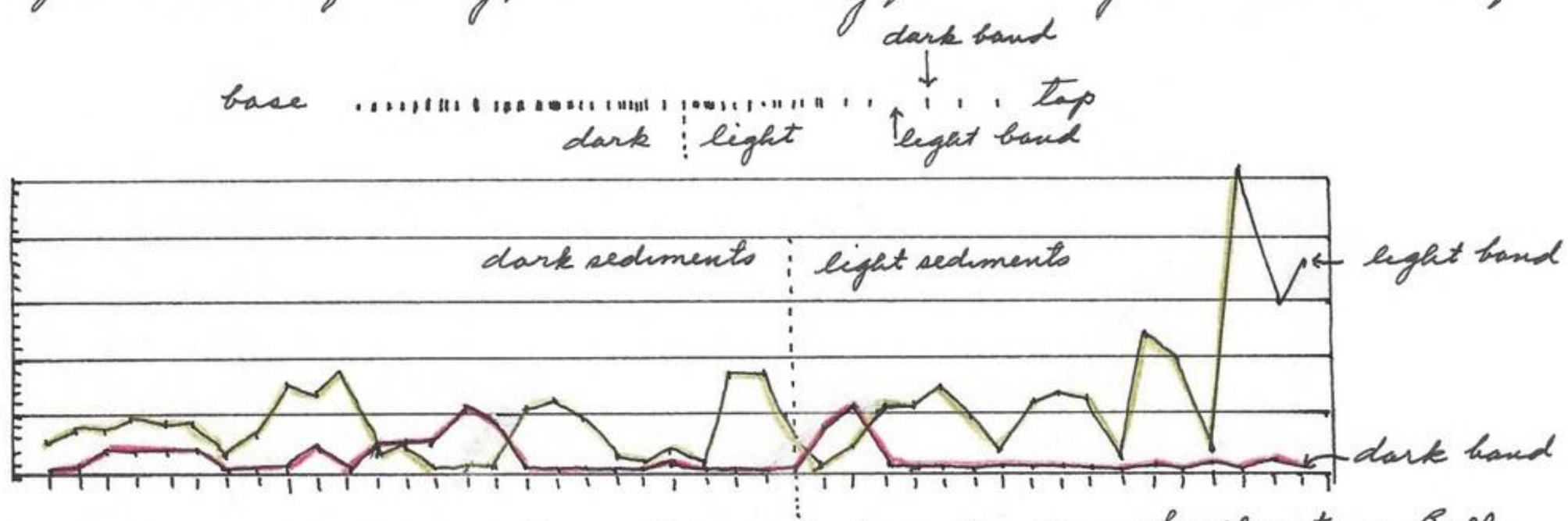
May 7, 1975

Photo 750507-1 and 750507-2 of new site of Art Museum just NW of museum. Photos taken from 7th floor NW corner of museum. Some trees had been cut and preliminary survey started.

Lawrence, Douglas Co., Kansas

May 7, 1975

measured light and dark bands of cretaceous chalk from Smokey Hill river valley 23 miles S of Oakley, Kansas showing periodicity. From cover of



Dec, 1974 Lawrence-Eudora-Lecompton Telephone Directory, Southwestern Bell.
1. Overall light demarcation may be surface leaching as the contact between light and dark does not show influence on cycles. 2. dark and light bands alternate in thickness during cyclic periods. 3. dark bands more uniform and stable.

69

750525-69

Clinton Reservoir, Douglas Co., Kansas

May 25, 1975

Checked area at S end Peterson Road and at Oxbow W of the confluence of Elk Creek and the Wakarusa. Started census of birds at Civil War school house at the NE corner of the old Peterson property. dickcissel, yellow-billed cuckoo, indigo bunting. 50.5 yellow-billed cuckoo, dickcissel, 2 starling, indigo bunting, redwing, lark sparrow. 505.9 Coon Creek and now S. Baltimore oriole. 8 cow-birds. 06.8 Wakarusa River, barn swallow, indigo bunting, crow, crow, redwing. 508.3 Clinton, now W. 2 starling, dickcissel, meadowlark, 2 barn swallow, 2 dickcissel, meadowlark, great crested flycatcher, cowbird, lark sparrow. 510.5 Wakarusa bridge. barn swallow, meadowlark, grackle, Baltimore oriole, dickcissel, meadowlark, dickcissel, meadowlark, dickcissel, 4 grackles, robin. 511.7 now south. mourning dove, redhead woodpecker (car travelling 15 m.p.h.) yellowbilled cuckoo, redheaded woodpecker, brown thrasher. cowbird, bobwhite, dickcissel, dickcissel, dickcissel, dickcissel, redwing, turkey vulture, 2 redwings. 502.8 now west. 2 dickcissels, redheaded woodpecker, Balt. oriole, yellow-billed cuckoo, cardinal. 2 bluejays, indigo bunting, sparrow hawk, barn swallow. 513.4 mouth of a pond reservoir. ♂♀ bluebird, sparrow hawk, barn swallow and starling. ♂♀ bluebird, indigo bunting, 2 lark sparrows brown thrasher, grackles, shrike, mockingbird, 3 meadowlarks, 2 shrikes. 514.7 4way crossing at top of hill, now to S. 2 turkey vulture, cardinal, indigo bunting, cowbird. 515.8 Wakarusa bridge, now S. 2 great crested flycatchers. 516.4 Elk Creek road intersection 516.5 Elk Creek bridge. From top of hill beyond (road) left and checked the Wakarusa meander at 50' in width, and ~~returned~~. The upper channel completely blocked, the lower channel graded to river. Returned to car and continued E. 517.0 Elk Creek bridge. meadowlard, 2 lark sparrows, dickcissel, dickcissel, 10 cowbirds, 2 mourning doves, 3 dickcissels, dickcissel, meadowlark, 2 meadowlarks, 3 dickcissels, bluebird, eastern kingbird, dickcissel, redwing, robin, 2 redwings, redwing, dickcissels, meadowlark, dickcissel. Meadowlark, redheaded woodpecker, barn swallow, meadowlark, dickcissel, meadowlark, shrike, redhead W, 2 cowbirds, lark sparrow E kingbird 521.2 Crossing Rockcreek + continuing E. redheaded W, 3 grackles, M. dove, redwing, M. lark, dickcissel, M lark, barn swallow, bluebird, bluejay, Baltimore oriole, redwing, 2 dickcissel, turkey vulture, 3 M. doves, redhead W. 524.7 Lone Star road. 4:00 P.M and end of census. This EW road we have been travelling is the County road.

* 750613-1
750613-2
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Museum of Art, University of Kansas, Lawrence, Kansas
May 27, 1975

Photo 750527-1 of excavation of foundation for the new museum of art building. Taken 10:30 A.M from 7th floor, NW corner, Mus. Nat. Hist. See May 7 for first photos of this site. (a series of construction progress will follow)

1 2/10 mi. N and 1 8/10 mi W Lawrence, Douglas Co., Kansas
June 6, 1975

Set 25 Sherman live traps along power line right-of-way on divide between two open fields. This undisturbed area has been trapped on previous occasions (see notes). Caught only one Microtus ochrogaster. Trails not used. Checked pond on Iowa to E and found 2 mallards (♂ & ♀) and chose not to fly as if in molting. 2 green herons. Nearly all marsh dry in upper reaches.

Clinton Reservoir area, S end Peterson Road, Douglas Co. Kansas
June 13, 1975

Trapped in field SE of base of Rattlesnake hill in damp spring area and along dike W of road at base of hill. The stand of native grass on slope SE of this area that borders valley is now gone. It was bulldozed out. The cattail marsh is in standing water & all trees removed adjoining. No running water. Pond at Peterson property nearly drained as result of Corp of Engineers bulldozing dam. Seepage more prominent because of non-use of drainage system above. Area now more junglelike. Deer & coyote tracks around edge of lake basin. No chiggers yet. Along trapline nest of 5 young redwing blackbirds, average size 95 mm total length. On road on hill butterflies segregated into species groups according to exposure and moisture, including browns, blues, skippers, sulphurs and others. I would estimate at least 4,000 all told. Collected the following insects from above area in deciduous forests and field (see opposite page) *

June 14, 1975

From trapline above caught 1 Microtus ochrogaster in marsh area, 6 reddish crayfish and along dike, 1 Peromyscus maniculatus.

402 Yorkshire, Lawrence, Douglas Co., Kansas
June 16, 1975.

Measured young bluejay 170 mm long (T.L) and 55 gm wt.

W mouth Elk Cr., Wakarusa River, Douglas Co. Kansas (see previous journal for exact locality)
June 20, 1975
Meander breakthru now 50' wide. Deer tracks 43, 70, 85 mm in area.

Lawrence, 402 Yorkshire, Douglas Co., Kansas
June 28, 1975
Photos 750628-1, 750628-2, 750628-3 of melanistic striped skunk rd. kill.

Univ. Kansas, Helen Foreman Spencer Art Museum, Lawrence, Douglas Co. Kansas
July 12, 1975
Photo 750712-1 of elevation and stakes on floor.

Lawrence, Douglas Co., Kansas

July 13, 1975

Prepared for vacation to Utah. Some items to collect: new Higgins eternal ink, Strathmore (white) paper 25/100 thick for mammal skins, skull tags, cotton, dates of low water of Utah Lake, wire, hydraulic jack, finalize class and office at museum, mammal book, also trees, flowers, geology of Snowy Range, maps of collecting areas, strainer to dry skulls, 2 "C" clamps, 2 L screws, mosquito repellent, misc tools, traps, drying case, water jug, warm clothes, rubber boots, fish equip, altimeters, radio, 410.-22, glasses, sun lotion, hike shoes, 12 volt shower, shovel, bucket, ear syringe, Jay phone 748-0817

July 14, 1975

Left Lawrence at mileage 2945.6 at 2:10 P.M, temp 88°F, 80% clouds, wind from SW. Kaw at Lecompton complete river channel and muddy. Will keep list of birds between Lawrence & Topeka. robin, Eng sparrow, grackle, starling, red-headed woodpecker, barn swallow, brown thrasher, crow, meadowlark, dickcissel, house wren, opossum and raccoon road kill. 2990 Wabaunsee Co. line, redwing, cowbird. 3025. killdeer, 3032 Clarks Creek. 3036.9 Smokey River full and muddy. 3054 western kingbird and first redtail. 3057. redtail. 3082 Salina at 5:45 P.M. From Salina on, will record all birds for an example of prairie. (All raptores are reported on entire trip regardless of objectives). Left Salina at 6:25 P.M. Census of all birds on right side of Interstate 70 are: redwing, redwing, mourning dove, meadowlark, (exit no. 238 to Brookville at 3096), barn swallow, barn swallow, cowbird, 2 barn swallows, striped skunk road kill, 2 barn swallows, (the swallows are all barn but maybe some cliff swallows), hummingbird, meadowlark, western kingbird, 3108.9 Elkhorn River, mourning dove, redwing, 8 starling, grackle, barn swallow, mourning dove, mourning dove, 2 western kingbirds, 3 mourning doves, 2 barn swallows, w. kingbird, 3 redtail like hawks 2 barn swallows, 18 cowbirds, Cowbird, redwing, redtail, 2 mourning doves, 2 barn swallows, 2 barn swallows, 2 killdeer, mourning dove, nighthawk, 2 barn swallows, barn swallow, check fence post common, redwing, 2 barn swallows, green heron, 8 redwings, 2 barn swallows, 2 barn swallow, Bunkerhill Rd 3140.8 at 7:45 P.M and end of census. All oil well pumps west of Russell seem to be in full operations. Russell is the first concentrated area of oil wells. Ponds in this area are stabiliged + clear with cattails and rushes growing around edges in contrast to eastern Kansas where the ponds are generally bare of such vegetation + are muddy.

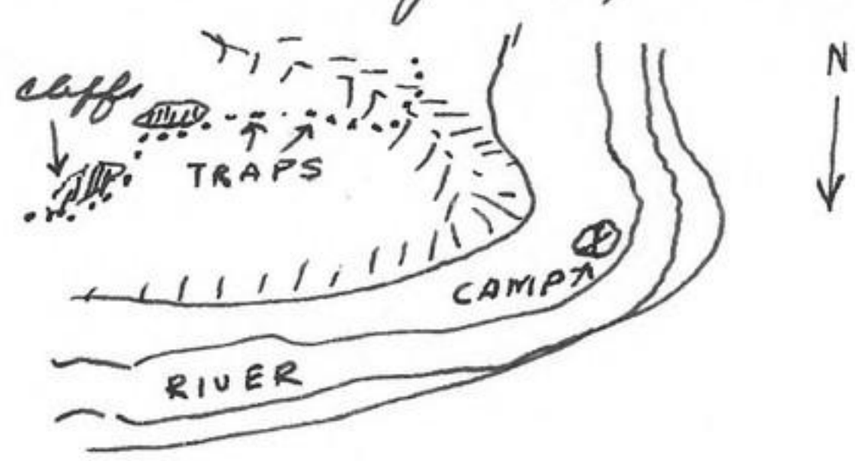
3187 at 8:55 at Ellis, Kansas and camped along ~~and~~ an impounded stream in City Park, a most delightful camp beneath large cottonwoods along this lake. This camp is just over bridge & to the left for 2 blocks. Muskrat in water, caught several small crappie.

Ellis, Kansas

July 15, 1975

Up at 7:00 A.M. wind all night but pleasant, minimum temperature 69°F, present temp 73°F. Grackles dominant bird and approx. 15 per acre on lawn beneath cottonwoods, 2 robins per acre. One ♀ grackle feeding young and 2 males charged the ♀. Left Ellis at 3189.1 at 8:10 A.M. will keep complete list of birds from here. Eastern & western kingbird, redwing, meadowlark, redwing, 3 starling, 3 mourning doves, redwing, grackle, shrike, 3 swallows, 4 barn swallows, grackle, striped skunk and badger road kill, barn swallow, western kingbird, redwing, 2 swallows, redwing, redwing, redwing, meadowlark, redwing, redwing, barn swallow, 3 barn swallows, (will exclude swallows from complete census at this point) redwing, redwing, redwing, redwing, bluejay, cowbird, redwing, western kingbird, 3206 miles at wakeeney. 2 meadowlarks, western kingbird, western kingbird, 4 redwings, redwing, western kingbird, 2 western kingbirds, 2 redwings, western kingbird, 2 redwings, redwing, pheasant road kill, redwing, redwing, 2 mourning doves, 2 redwings, 2 cowbirds, 8 ducks & first observed, 4 cowbirds, western kingbird. 3218. Collier and end of census. Horned lark at Quinter. 3229 badger rd. kill. 3241 Cooper size hawk. Colby area the Solomon & Saline River is dry but the ponds are full. 3283 13 lined ground squirrel. In this area redwings generally distributed. 2 western ~~flycatchers~~ kingbirds harassing a ♂ redwing. 3313 13 lined ground squirrel. at Goodland 3314 at 11:35 A.M. will keep complete census of birds & mammals to Colorado border. redwing, 3 redwings, 2 barn swallows, 2 redwings, 2 swallows, 2 redwing, redwing, redwing, redwing, redwing, redwing, redwing, 3316.8 redwing, redwing, 3 redwing, redwing, 3320. South Creek Beaver area west of Goodland more hilly than east of Goodland and not as suitable for redwings. Redwing 3320 Renton. Redwing, redwing, first lark bunting, some gopher mounds. 3330 Middle Fork Beaver, 2 barn swallows, horned lark, meadowlark, 2 barn swallows, redwing. 3331.9 Colorado

border at 11:55. will change time here. End of Census. The redwings are definitely more numerous east of Goodland in the flatter areas. 3346. Most wheat has been harvested, some being cut. many field plowed. 3353 first sagebrush. Sky clear above. 3356 Can see clouds associated with Rocky mountains. Redwings decreasing as we travel west. 3366 lark bunting ♂ 3368 Mona. 3385 3rd 13 lined ground sq. 1 mi E of Seibert. Clouds yellowish orange over Rockies from pollution; those nearer are pure white. 3409 now dropping down from uplands. 3437 Swainson hawk. 3439 Agate Sears Mall on highway 25 north of Denver at 3516 at 4:10 P.M. 3539 first sparrow hawk since Lawrence. at a few miles S of Johnsons Corners. Also a redtail here. 3540 sparrow hawk. 3548 Larámer Co line. Continued N on highway 25 to turnoff to Ft. Collins on highway 14, thence W on highway 14 to Tedo Place where we turn W and continued up the Cache la Poudre River to a point 3 8/10 miles down canyon from Poudre Park or 1/2 mi down canyon (via rd) from the N Poudre Diversion Canal (Dept. of Reclamation), at mileage 8583.3 (camp) The Cache la Poudre River Canyon is long and very similar in topographical character and is inhabited by ranches and summer homes and small villages. At camp along river set 50 traps 20 feet apart on N exposure of canyon sidehill on S side of canyon. Line of traps averaged about 100 feet above the floor of the canyon. and covered 4 or 5 zones of vegetation according to exposure and degree of moisture from dry and exposed position on ridge to right to moist and protected to left. Slope covered with a few Ponderosa pine, Douglas fir, birch, cliff rose, service-berry, many colorful flowers including Indian Paint brush. Sidehill completely in vegetation. Birds were Indigo bunting, Stellars jays, 3 spotted sandpipers on river, robin. deer tracks on sidehill. Sagebrush on ridge & south exposures. The service berries are ripe and the gooseberries still red. There is considerable evidence of elevated floor levels on sidehills. Noted only one lizard. The riparian vegetation of willows and birch should support zapus and some microtines. The water has been higher prior to this season.



750716-74

Cache la Poudre River, 3 8/10 mi. down canyon from Poudre Park, Larimer Co., Colorado

July 16, 1975

min temp 58°F., max 76°F at 7:30 A.M.

From trapline of 50 traps on sidehill:

750716-1	Peromyscus maniculatus		146-61-20-16-13gms. ♂ testes 8mm
750716-2	"	"	151-68-17-21-17-16gms. ♂ testes 7mm
750716-3	"	"	146-61-19-19-18gms ♂ testes 10mm
750716-4	"	"	156-68-21.5-17-20gms ♂ testes 9mm
750716-5	"	"	160-71-19-18-19gms ♂ testes 9mm
750716-6	"	"	155-69-21-18-19gms ♂ testes 6mm
750716-7	Neotoma		255-113-32-22-82gms ♂ testes 6mm
SKU 750716-8	Peromyscus maniculatus		153-66-19-18-17gms plac. scare
SKU 750716-9	"	"	158-63-20-18-14gms. Wt. normal

The 3 spotted sandpipers observed yesterday evening were observed flying up the river at camp at 6:50 A.M. Took the following photos
750716-10 Camp with trailer and Annette. Cache la Poudre River in background.
750716-11 Ibid. Photos to NW. Left camp at 3583.3 mileage at 11:00 A.M. At 3583.8 at North Poudre Diversion Canal (Dept of Reclamation. 3584.4 first aspen. Poudre Park 3587.1 mileage. This Park is approx. 200 ft higher than camp of last night. 3588.3 Roosevelt National Forest Boundry. At 3589.0 Diamond Rock Picnic Grounds. 3595.7 Good eroded surfaces 40' above the present river. ~~valley~~. Gray Dove River cascades and about 8000' the beginning of a terminal moraine. with meandering rivers, damp meadows and willows & birch thickets. Valley wide and river without rapids or cascades. 36~~2510~~24.9 begining of dirt road 3629.3 inlet of Chambers Lake at 9460 ft (Camp ground area). 3630 arctic three-toed woodpecker, 3631 first snowpatches 3633 dam of old lake now drained. 3640 Zimmermans Lake at 10220 feet. 3636.0 Cameron Pass, 10285 ft. Made camp on W side on divide. County line crosses on this divide, Jackson to S and Larimer to ~~South~~. north. Set 50 traps on E side of divide on hillside approx. 100' above level of divide. Trees Engelmann spruce with some down trees in various stages of deterioration. Also set 50 traps on E side of divide among hillside of Engelmann spruce with down trees on ground. The exposure is like one on W side of divide except there is no water draining from slope whereas on the west slope the soils are wet from melting snow and regular permanent creeklets of water. The exposure is the contributing factor in the difference.

750717-75

3/10 mi. W Cameron Pass, 10320 ft., Jackson Co., Colorado

July 17, 1975 Min temp. 44°F

From line of 50 traps set on N hillside of Engelmann spruce taught:

750717-1	Eutamias	210 - 95 - 30 - 16 - 57 gms ♀ ut normal
750717-2	"	185 - 82 - 29 - 14 - 40 gms ♂ testes 5 mm
750717-3	"	204 - 88 - 29 - 14 - 50 gms ♀ ut normal suckling
750717-4	Phenacomys intermedius	155 - 36 - 18 - 15 - 39 gms ♀ 2x2 plac. scars
750717-5	" "	138 - 32 - 18 - 15 - 34 gms ♂ testes 8 mm
750717-6	Eutamias	193 - 84 - 31 - 14 - 41 gms ♂ testes 7 mm
750717-7	"	215 - 98 - 32 - 15 - 50 gms ♀ ut. normal.
750717-8	Clethrionomys gapperi.	158 - 49 - 19 - 14 - 32 gms ♀ ut enlarged
750717-9	" "	157 - 44 - 19 - 14 - 31 gms ♀ 4x3 plac scars
750717-10	" "	147 - 43 - 19 - 14 - 26 gms ♂ testes 11 mm
750717-11	" "	147 - 43 - 18 - 13 - 26 gms. ♀ 2x3 ~~em~~ plac. scars.
750717-12	" "	152 - 42 - 18.5 - 14 - 30 gms ♀ 2x6 emb. 9 mm
750717-13	" "	143 - 40 - 19 - 14 - 26 gms ♂ testes 12 mm
750717-14	" "	154 - 47 - 19 - 14 - 28 gms ♂ testes 12 mm
750717-15	" "	148 - 45 - 19 - 14 - 26 gms ♂ testes 11 mm

most of the above mammals were from Engelmann spruce forest from under or associated with logs on ground or base of large trees. The Phenacomys (4) was from side of dead log near running water and (5) from base of old tree. Birds in area: ~~Rocky Mt~~ Canada jay (family), robin, gray headed junco, white-crowned sparrow, raven, a warbler, thrush. The robin is the most common bird, the young of one family with tail approx. 1 inch long, others with tail near length of adults. Deer tracks approx 10 per 200' of road edge where deer cross divide. The west slope is the last area to recover from the melting snow. I would expect that there would be a greater number of mammals here than elsewhere because of the areas of snow occupying normal mammal territories. Some snow patches at base of slope are 40'x20'. All marshes on divide or flatter country are supersaturated with spring like melting and although old winter nests are observed, there are very few sign of microtines in the damp meadows.

Individual checking recordings showed me a chart for the last week which indicated a gradual decrease in amount of water to yesterday and then a very abrupt rise, yesterday and last night from rains. The daily fluctuations show more runoff in day than at night. The canal that pirates water from several cirques on the west side of the mountain range toward the Rocky Mt. National Park is directed into the Cache le Poudre River drainage, which needless to say has completely upset the ecology of the two or more drainage systems. Yesterday the water was murky, today it is clear. Erosion of canal banks cause turbidity.

750717-76

1/10 mi. E of Cameron Pass, 10 320 ft., Larimer Co., Colorado

July 17, 1975

From 50 traps set in Engelmann spruce on E sidehill, captured:

750717-16	Clethrionomys gapperi		143-41-19-14-25 gms ♂	testis 10 mm
SKU 750717-17	"	"	142-41-18-14-26 gms ♀	5x2 placescars
750717-18	"	"	145-45-19-14-25 gms ♂	testis 11 mm
750717-19	"	"	143-46-19-14-26 gms ♂	testis 12 mm
750717-20	Eutamias		201-85-31-16-50 gms ♀	wt. normal

From the drier exposure caught fewer mammals that on E exposure under similar slope and vegetation. Left this trapline in position to test the activity of Eutamias during the day. The one caught above was one captured before 7:00 this morning before the sun arrived on slope. The canal inspector also reported seeing bear tracks in mud along canal but has never observed a bear in this area. They come off the mountain from the east, cross the canal and then cross divide. Deer are common. Canal constructed in about 1888 when Ft Collins recognized the need for water. The old building recently raised on E side of divide was used to house wagon connected with the maintenance and inspection of the canal. According to the inspector, man is going to take this water regardless of the environmental consequence resulting.

There appears to be more tree squirrels on the slope on the east side of the divide than on the west side although considerable midden activity on both slopes.

This divide area, at least during our stay, is characterized by an almost total lack of wind. When it rains it is heavy but of short duration and for the period of the cloud mass that passes over. Flowers are in great perfusion and are of the early spring varieties that follow melting snowbanks and receding water levels and include buttercups, marsh marigolds, Indian paint brush. The krumholz is approx. 1000' above the divide with dense stands of Engelmann spruce between. Mosquitos are not numerous and in the field would be represented by 4 or 5 around the body at one time.

This evening set 50 traps just N of divide on W side of creek, the first 20 among willow in field, the rest among large Engelmann spruce on relatively flat terrain and associated with running water and marshy meadows.

750718-77

1/10 mi. E Cameron Pass, 10320 ft., Larimer Co., Colorado.

July 18, 1975 — min temp 39°F last night. Temp 67°F at 2:35 P.M.

From 50 traps (second night in same position) from W exposure of Engelmann spruce:

750718-1	Eutamias	[168]-[56]-30-15-45 gms. ♂ testes 5 mm
750718-2	"	196-88-30-15-43 gms. ♂ testes 6 mm

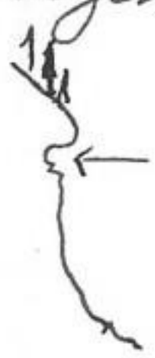
2/10 mi NW Cameron Pass, 10280 ft., Larimer Co., Colorado

July 18, 1975

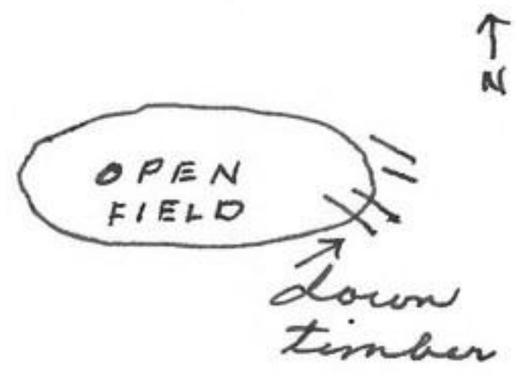
From 50 traps set among Engelmann spruce (10 in willow bordering spruce) among down logs and bordered by damp to saturated meadows:

750718-3	Peromyscus maniculatus	155-68-20-17-22 gms ♂ testes 10 mm
750718-4	"	162-71-20-17-23 gms ♀ 3x2 plac. scars.
750718-5	Zapus princeps	245-145-33-15-29 gms. ♀ 3x3 emb. 8 mm
750718-6	" "	224-131-31-15-22 gms ♀ 2x4 emb 3 mm
750718-7	Clethrionomys gapperi	145-45-18-14-31 gms 1x6 emb 14 mm
750718-8	" "	146-46-19-14-29 gms ♂ testes 12 mm
750718-9	Eutamias	197-87-30-16-48 gms ♀ 2x2 plac scars
750718-10	"	199-86-30-15-39 gms. ♂ testes 7 mm
750718-11	Citellus lateralis	270-88-42-20-163 gms.

Specimens 750718-1 and 750718-2 from traps left set during the day of the 17th. Nos 750718-3 to 750718-11 from set of last night. The zapus from willows in open field. Two deer tracks in area of above traps measured 68 and 75 mm respectively. Noted 2 western flycatchers? preparing to enter area of cut bank last evening at beginning of diminishing lights. Also noted an audubon warbler.



In an open stretch at base of slope, probably cause of avalanche, noted several large trees blown down with winds from the NW



Thomomys uncommon at the divide area.
At 7:30 took photo 750718-11 of Annette and an old outdoor church just NW of divide.

Left camp at mileage 3636.2 for Walden at 3:00 P.M. From road between camp and canyon to S in the Hokhu Peak area made photo 750718-12 of Annette and trailer. At 3638 road kill golden-mantled ground squirrel and another investigating the road kill. Pavement at 3640.0. Continued to Walden

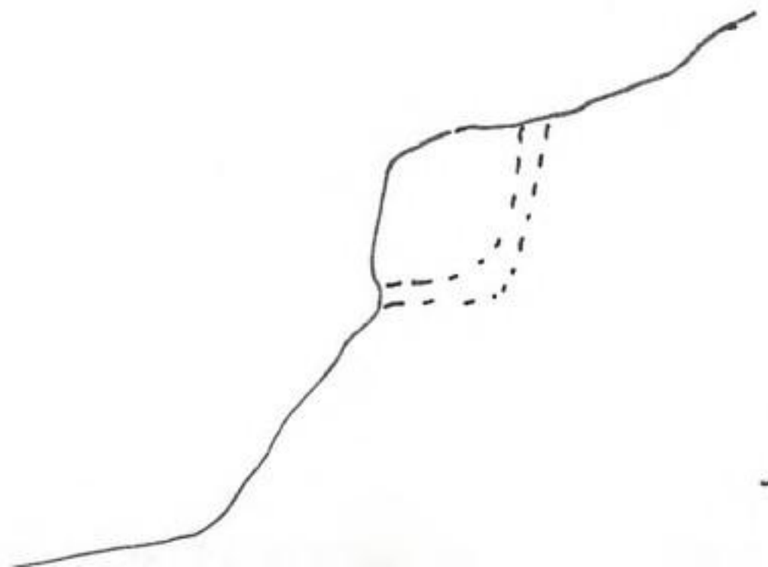
5/10 mi. N Walden, approx. 8,200 ft., Jackson Co., Colorado

July 18, 1975

Set 50 traps at 1/2 hr before sundown in sandstone outcrops on N side of Michigan River. This slope is sandy and is covered with sparse vegetation, Chrysothalmus type. On ridge running up & down slope is a serviceberry-like plant (1' to 3' high). Traps set 20' apart in nearly horizontal level and mainly at base of outcrops. Between 1/2 hr before sunset and half way between sunset and twilight caught the following mammals. The Eutamias minimus stopped their activity at about 1/2 hr after sundown. The Peromyscus was caught about 20' after sunset when there was considerable light for critical examination.

750718-15	Eutamias minimus		198-94-31-15-37 gms ♂ testes 6 mm
750718-16	"	"	199-91-32-15-39 gms ♂ testes 7 mm
750718-17	"	"	
750718-18	"	"	[174-]-[61]-30-15-48 gms ♀ ut normal.
750718-19	"	"	209-93-31-16-46 gms. ♀ ut normal, nipples prom.
SKULL ON. 750718-20	Peromyscus maniculatus		162-75-20-16-18 gms. ♂ testes 10 mm

This valley of Michigan River is broad, marshy with a unique meandering river. The slopes are gently and undulating. In the upper region the valley is principally in willow with stands of ponderosa pine, aspen, and lodgepole pine. The Rocky Mts form the east skyline (continue top page). 3655 mountain bluebird. Few Citellus along road. 3663 first magpie and beautiful view looking up valley to S with oxbows & meandering creek. 3666 walden. Camped 1/2 mi N on N side of Michigan River to east of main road. Birds & mammals associated with above trapline are: crow, veery, robin, meadlark and beaver. This composite support approx 50 Citellus richardsonii and they are condetioned to people, and have holes bordering the open camp or rest area. They were active until approx. 1/2 hr after the sun dropped below the mountain range to the west. Mosquitos numerous because of the proximity of the river and marshland associated. They were numerous around the hot rocks and bases of cliffs on S exposures. After the air temperature cooled, they disappeared ~~and~~ from camp area near the river. The Citellus used holes on bank that led to other escape holes on top of bank and these were used to momentarily escape man & animals but if pursued they (and Eutamias) would leave hole system and continued up slope to more permanent burrow systems. Toward the end of their daily activity they were observed moving up the slope to higher grounds on the hillside



5/10 mi. N Walden, approx. 8200 ft., Jackson Co., Colorado

July 19, 1975

From 50 traps set last night captured: min temp 42°F and at 6:20 A.M was also 42°F but 44°F at 6:30 A.M

	750719-1	Peromyscus maniculatus		156-48-21-17-22 gms ♂ testes 10 mm
	750719-2	"	"	163-64-21-18-35 gms ♀ 3x3 emb 22 mm
	750719-3	"	"	175-78-21-17-33 gms ♀ 4x2 emb 2 mm.
	750719-4	"	"	142-62-20-17-24 gms ♀ 3x3 emb 13 mm
	750719-5	"	"	158-68-21-17-19 gms ♀ 3x4 emb 3 mm
M. only	750719-6	"	"	152-64-20-16-15 gms ♂ testes 7 mm
"	750719-7	"	"	147-62-21-16-16 gms ♂ testes 7 mm
"	750719-8	"	"	152-66-21-16-20 gms ♂ testes 8 mm
"	750719-9	"	"	146-72-20-16-15 gms ♂ testes 4 mm
"	750719-10	"	"	133-59-20-16-12 gms ♂ testes 5 mm
SK. only	750719-11	"	"	150-63-20-16-18 gms ♂ testes 6 mm. Large coagulating glands [important specimen]

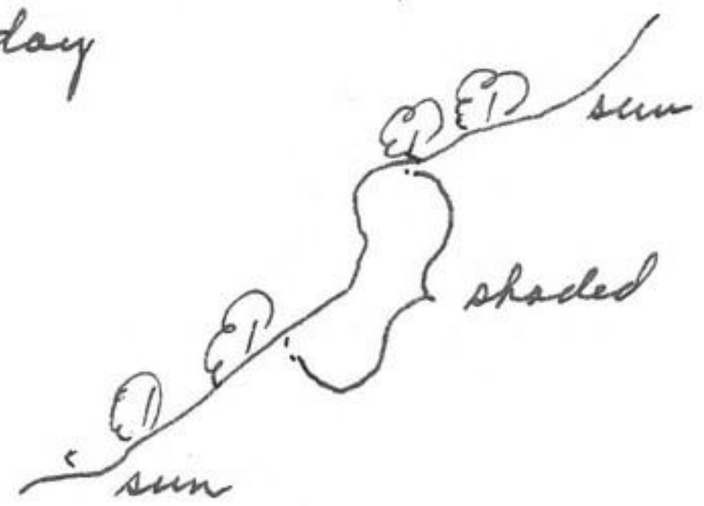
no. 750719-3 had unusually great amount of white mammary tissue.

M. only	750719-12	Peromyscus maniculatus		158-72-20-16-19 gms. ♂ testes 9 mm
"	750719-13	"	"	147-61-19-16-14 gms ♀ ut. slightly enlarged
"	750719-14	"	"	148-61-20-15-16 gms ♀ ut normal
"	750719-15	"	"	141-57-20-16-14 gms ♂ testes 5 mm
"	750719-16	"	"	157-71-20-16-18 gms ♂ testes 8 mm

From camp caught: (same locality as above).

750719-17 Eutamias minimus 208-96-32-16-38 gms ♂ testes 8 mm in sun.

Started topline at 6:20 A.M, sunlight already on western peaks. 6:30 all of valley attempted trapping Citellus richardsoni with museum special traps but without success as these traps are too small. no Citellus actively at 6:40 A.M. Large flocks of Brewers and redwing blackbirds flying W along river. 8 badger digging equivalent to length of topline but at base of hill. From topline Peromyscus in family groups. Heavy dew on top of car and in grasses. ants active last night but not this morning. 8:15 A.M sun on all exposure except where greatest Citellus activity occurs in the day



9:40 now shade restricted to localized activity area. Good gopher activity. Sherman live traps are not entered by these Citellus but they will displace the traps by digging under them from the sides or from the rear of the trap. Eutamias will enter without hesitation. Left at 3668 at 1:20 P.M

Left the Walden area 3668 at 1:20 P.M. 3676.8 Cowdrey. no mammals along road since we left camp at Walden. 3679 first Citellus richardsoni. Junction 125-127 at 3680. Badger rd. kill. will keep record of magpies & crows. 2 magpies, 1 crow, turkey vulture (3682), 3684 Citellus. 3688 Country rolling with sagebrush savannas and Conifer-aspen forests. 3689.3 Wyoming. 3701 begining of brush vegetation of cliff rose, mt mahogany, sagebrush etc. 3702 first Brewers blackbird since Walden. 3703. Wood Landing 3708 badger rd kill. 3704 only birds observed on these floodplains are 6 Brewers & 21 3715 snowy egret & 6 ducks. 3717 first horned lark & mourning dove. 3720 2 mallards, 2 pintails 3720 marsh hawk. 3723 several large lake & ducks 3723 striped skunk rd kill 3724 Swainson like hawk 3727 striped skunk rd kill. 3728 Laramie City limits. 7165 elv. Left Laramie 3738 for Centennial. at 7:20 P.M. 3743.2 at airport and beginning of bird & mammal census. At this point 5 groups (15-8-5-5-7) of Calif. gulls flying in opposite directions, 3746 Calif gull. 3749 2 antelope. 3757 antelope. no birds so far. 3753 2 antelope. 3754 now dropping down grade. 3758 jackrabbit. 2 Antelope at 3759. 3760 Jack's Place, 2 coot on lake. 3762 jackrabbit rd. kill. 3763 antelope. all have been on N side of road. 3764 first bird ~~by~~ a Brewers blackbird since Laramie. 3766 9 antelope on S side, ~~one~~ two on N side area of round boulders on surface of ground and vegetation short & sparse. 3767 N Fork Little Laramie. 3767 Centennial, Wyoming. At late twilight set 50 traps on N exposure of a railroad bed that led to a lumber mill approx 3/10 mi. SE of Centennial. Also camped at this area. These traps were set after the Citellus richardsoni had retired to their burrows. Vegetation on right-of-way artemisia. Fields are irrigated and grown to grass which is closely cropped by cattle. This part of valley is an outwash of the creek to W and is characterized in most places by white quartzite boulders rounded by water action. By evidence of the many burrows I would judge there to be many Citellus richardsoni in the area. If traps are inspected in the early morning there should not be molestation of ~~the~~ other kinds of mammals in the traps. Here a few frogs in ponds bordering the railroad grade.

2/10 mi. SE Centennial, ____ ft., Albany Co., Wyoming
July 20, 1975 min temp last night 46°F
Temp 6:30 AM = 63°F

From 50 traps set along railroad rightofway among Artemesia caught:

SKU 750720-1 Peromyscus maniculatus 170-70-20-17-30 gms ♀ 4x3 emb 11 mm
750720-2 " " 151-65-20-17-20 gms ♂ testis 9 mm
750720-3 " 153-66-20-17-21 gms ♀ 3x2 emb 10 mm

Meadowlark calling, red shafted flicker, Brewer's blackbird along trapline. The topography west of here is of smooth surfaces at base of mt. and are covered with artemisia and prairie plants. Slope of steep grade produced by Pleistocene erosion from the main canyon or those produced by faulting are grown to cliff rose or mahogany and are confined to these slopes. Left this camp area after constructing a drying box for specimens. Will keep a list of birds observed along the route to Libby Flats in the Snowy Range, 3776, Clark's crow, 3777. Rocky Mt grosbeak, pine siskin, white-crown sparrow, end census at 3778. 3780 Libby Flats at 10847 ft. ~~3785~~ Tried to get to Brooklyn Lake but snow fields across road so returned to a point 1/2 mi W of the west end of Douglass Lake where we made camp. At this point the recorder failed and the information for July 21, 22 and part of 23 was lost. The information for these day are recorded according to recall; the catalogue of specimens were not on the recorder so they stand as originals.

There is more snow in the Snowy Range than I have ever observed before, especially among the Engelmann spruce forests on the glacial plateform of the range and these conforming to either E-W linear drifts or regular drifts 90° to direction of the winter winds from the west. Large snow deposits were common beyond open fields in the timber. For photographic purposes this is one of the most interesting times of the year as long lines of snow can be properly incorporated into the composition of the picture. It is best too that one wears rubber or waterproof boots because of the wet to supersaturated condition of the country. This evening set 50 traps on S side of Libby Creek starting about 150' S of where the creek crosses the road and thence E at edge of large Salix patch at intervals of 20'. In some areas the willows were matted and blackish-brown ~~from~~ not having recovered from the recently melted snow banks. Most of the settings were on or near damp soils. The main creek was full but not flooding. The second 50 traps were among Engelmann spruce on the N side of Libby Creek on the slope of the mountain (NW of old Cabin) and were place 20' apart at base of large Engelmann spruce or along or under fallen dead trees of the same species of trees.

750721-82

1/2 mi W of W end Hourglass Lake, 10560 ft. Albany Co. Wyoming

July 21, 1975 min temp 34°F

From trapline of 50 traps set in willow of wet meadows caught:

750721-1	Microtus montanus	153-39-19-12-41 gms ♂ testes 12 mm
750721-2	" "	155-43-19-10-40 gms ♂ testes 11 mm
750721-3	Eutamias minimus	194-85-30-15-42 gms ♂ testes 5 mm lactating
750721-4	" "	199-86-30-15-50 gms. ♀ 3x1 plac. scars.

From 50 traps in Engelmann spruce at the following locality:
6/10 mi E of outlet Libby Lake, 10560 ft. Albany Co. Wyoming.

July 21, 1975

750721-5	Clethrionomys gapperi	140-41-18-15-24 gms ♂ testes 12 mm
750721-6	" "	148-45-19-15-24 gms ♀ 7x1 emb 3 mm
750721-7	" "	151-48-19-15-25 gms ♂ testes 11 mm
750721-8	" "	139-42-19-15-23 gms ♀ 4x3 emb. 5 mm
750721-9	Peromyscus maniculatus	162-73-21-17-19 gms ♂ testes 10 mm
750721-10	" "	154-65-21-17-22 gms ♂ testes 10 mm
750721-11	Eutamias	198-88-30-15-50 gms ♀ ut vase but small, mammary glands large
750721-12	"	[176]-[67]-31-15-46 gms ♀ ut normal and white, ferm mammary glands large
750721-13	"	188-81-30-15-39 gms. ♂ testes 5 mm
750721-14	"	197-90-30-15-45 gms ♂ testes 5 mm
750721-15	"	198-89-30-15-39 gms. ♂ testes 5 mm

The above traps were collected before the direct sunshine was on this exposure at at approx 7:00 A.M. Prepared these specimens and recorded two photographs of camp ~~and~~ and the creek (Libby) Photo 750721-16 of ~~trailer~~ trapping area among willows with demarcation between higher willows in main area and shorter vegetation between the willows and the creek. The traps were set at edge of higher bolet (Engelmann sp) Photo also shows snow and condition of Libby Creek. Not effect of W wind on trees. Photo 750721-17 of Annette & trailer at this camp. Not bridge of snow over Libby Creek.

Photo 750721-18 ibid as above. High winds could displace trailers in this position. Bold clouds characterize the sky today.

Photo 750721-19 Phlox like flower in solid masses on disturbed slopes.

Photo 750721-20 same as above but among roots of trunk of dead Engelmann sp.

This afternoon set up camp 1/2 mi. E, 1 3/20 mi. S of the E end of Hourglass Lake which is E of the present camp. Set 50 traps among nearly clumped Engelmann spruce and 50 traps among willows around edge of lake. These areas are on flatter sections of the area than at previous camp. Some isolated runways associated with grasses and sedges around the lake.

750722-83

5/10 mi E, 1 3/20 mi. S of E end Hourglass Lake, 10480 ft., Albany Co., Wyoming

July 22, 1975 Min Temp 37°F

From 50 traps set in climax Engelmann spruce collected the following:

750722-1 Clethrionomys gapperi 140-38-18-13-23 gms ♂ Testes 12 mm total embs 8 gms

750722-2 " " 151-43-19-13-35 gms ♀ 3x4 emb 15 mm

750722-3 " " 152-47-20-15-29 gms ♂ Testes 12 mm enlarged flank glands

750722-4 " " 148-46-19-14-24 gms ♂ testes 11 mm

750722-5 " " 152-46-19-15-29 gms ♀ 5x2 emb. 8 mm

750722-6 " " 143-43-18-13-25 gms ♂ testes 12 mm

750722-7 " " 125-38-18-13-15 gms ♂ testes 9 mm

750722-8 " " 148-45-19-14-25 gms ♂ testes 11 mm

750722-9 Peromyscus maniculatus 140-65-20-19 gms ♂ testes 10 mm

From a trapline of 50 traps set among willows around lake caught one Phenacomys at 4/10 mi E, 1/10 mi S from E end Hourglass Lake, 10465 ft., Albany Co., Wyoming

750722-10 Phenacomys intermedius 148-37-18-11-45 gms ♀ 4x3 emb 20 mm

This was the only mammal and no other traps set except one which held a Bufo which measured 55 mm in body length. 2 frogs called last night. The above Phenacomys has an absorption coil. The embryos weighed 12 gms or 1/4 the entire body wt of the mammale. mammary glands 3/4 grams and what I would consider minimum amount.

In this area noted a ♀ mule deer come to within 50' of trailer and then after following a semicircular route around trailer continued N. Took the following photo here;

750722-11 Annette and trailer at above camp with the Snowy Range to the W. This area is associated with the Corral in the clearing to the S. This open field creates unobstructed expanse for winds of winter to blow snow into the forest on the east side of clearings. The sedges and grasses are maintained by the water from the melting snows. At this time the grasses are in standing water. They show some evidence of former migratine activity but only in localized areas.

750722-12 of iceberglike masses of snow in shallow lake on E side of open meadow just east of corral. These snow are drifted from open field to W.

750722-13 Photo taken by annette of me examining a gopher digging in open field just S of corral. The lake where traps were set is to left. Snow masses on west side of field. The Snowy Range in background.

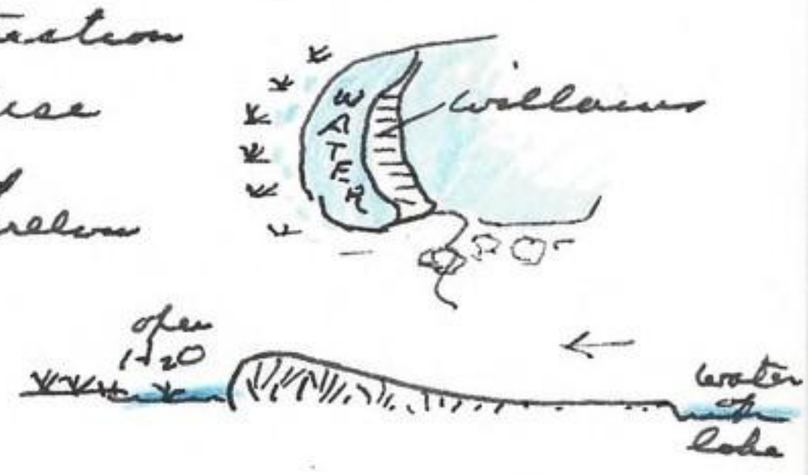
750722-14 Same as above with corral to left. It is presumed that the corral is used for sheep.

750722-15 Same as previously photo ~~but~~ with Annette in foreground.

750722-16 a dead Engelmann spruce east of corral in snow drift area. The root system is obviously not absorbing snow and receeding snows are a factor of heat transmitted down the dead trunk of the tree. There is definitely absorption of moisture by live root systems of spruce and the transperation of water thru the needle system but the amount of snow use is a fraction of the snow preserved by the protection of the trees proper. The idea that if all conifer trees were removed from alpine areas there would be more water available in the lower drainage systems.

750722-17 same as above. Life form of these spruce may be a factor of depth of snow, these trees are reacting to snow by deferences of bark below & above snowline, snow drifts which may cover some trees to 15-20 feet high on trunk and the high winds that control the narrowness and limb growth on the upper branches. Beneath snow drifts are plants that may never develop into springtime vegetation until too late in the autumn. This area shows all stages of seasonal growth. Snow (drift) coverage may also be an important factor in mammal populations & distribution, especially would be the water associated with runoff from snows.

750722-18 Lake and willows & sedges where 50 traps were set last night. The lake has had a construction which has developed into willows and these willows have reacted to winds from the west as is the shape of krummholz. The ground under willows is relatively free of vegetation and there are many dry leaves from the willows. This community should have been ideal for



zapus, some microtus and shrews but proved to be quite depauperate of mammals except the Phenacomys which was nearest the Engelmann spruce on the mainland to the south. Microtine ~~foot~~trails were uncommon in the short sedges surrounding the lake and then only in favorable areas of vegetation that has relief from water and some overhead protection.

750722-19 a lake 3/10 mi. E of Hourglass Lake showing extent of linear snow drifts from westerly winds. There are large drifts on the S and E side of lake as result of winds blowing freely across ice of winter period. Vegetation communities should show effect of both winter winds and snow accumulation. The drift on this side of lake has receeded more rapidly in center than at edges because of wet marsh beneath the drift. Lateral recession is marked by

grass and sedge not yet developed.

750722-20 Same as above. Collapsing ice of drift caused be a factor in damaging vegetation and acting as a natural trap for both birds and mammals.

750722-21 wild iris near edge of above lake.

750722-22 An old cabin used by early miners and located along Libby Creek 7/10 mi directly E of the outlet of Libby Lake. The logs apparently were old and dead at the time they were employed in the construction of the cabin and as a result show a complete deterioration of the logs. It would be interesting to examine floor for artifacts.

750722-23 Same cabin as above but from N exposure showing door which had a threshold of approx 2 feet high. The vegetation around the cabin did not show evidence of fertility of soils from use.

750722-24 2 cabins approx 1/10 mi. SW of the above mentioned cabin. These cabins had been insulated by borrowing dirt surround the cabins and piling the soil against the cabins. This interrupted soil has produced a more luxuriant growth of grasses. Microtines are associated with this refugia. Several surface mine diggings are in the immediate area of these 2 cabins and the one mentioned above. There is a possibility that these two cabins were used for storage rather than living quarters.

750722-25 Same as above but old tree in foreground more prominent. These cabins are associated with a burn that left many tree standing that are much larger than the modern forests in the same general area.

750722-26 Same 2 cabins as above with showing south side. The one on the ~~left~~ right is higher above ground than the one on the left.

750722-27 Libby Creek valley just above point where highway 130 crosses the creek. Photo to NNW. The outlet of Libby Lake is beyond the valley 7/10 mile beyond in the direction of Sugarloaf Mt. Slope on left of Libby Creek good for Phenacomys. Grade of creek low in this valley. This is the view to the W of the above cabins.

750722-28 Bellamy Lake and ~~Brush~~ Snowy Range beyond. Trees in foreground are beginning of lower Krumholz zone. N of previous shot.

750722-29 Same foreground but nearly directly W + a continuation to 1

Continued thru Snowy Range and set up camp at South Brush Creek. Set 50 traps in timbered (spruce, Douglas fir, etc) part of creek valley associated with runoff channels and lateral drainages from main creek and another 50 in willows on wet soils surrounded by conifers + deciduous tree.

South Brush Creek, 1½ mi N, ¾ mi E Ryan Park (P.O), 7950 ft., Carbon Co., Wyoming

July 23, 1975

From trapline of 50 traps, in dense forest (Engelmann spruce, Douglas fir etc) of down timber, shrubs and system of overflow channels from main river. Ground understory lush. I would have predicted a 60% catch but did not get one mammal or were traps set off. From 50 traps set in damp meadow dominated by willow with lush ~~under~~ ground cover of grasses & sedges and brilliant flowers and slightly elevated from river channel caught the following:

750723-1 Sorex 110-50-13-7-4.5 gms. ♀ ut. normal

750723-2 Zapus princeps 240-140-32-14-24 gms. ♀ 3x0 plac scars

Why I did not realize at least a 60% catch is a mystery and could only be explained on ~~too~~ early spring flooding or unusually low mammal populations, the former seems most likely although the area, except the river, does not show this effect.

Left Brush Creek Camp at 10:20 A.M at mileage 3840.3. From Ryan Park at mileage 3844 will keep complete list of mammals to traplines in the Libby Flats area. Golden mantled ground squirrel 3848 Eutamias minimus. 3849 Silver Lake. 3852 Marie Lake. From outlet of this lake started climb to ridge to W for purpose of photographing the alpine area to E of Snowy Range. Met a hiker that had started at Libby Lake and gained ridge via Sugarloaf Mt trail. Took 5 hrs to go from there to Marie Lake He reported marmots, pika, raven, lancastiate, a hawk smaller than a redtail but with same body build.

On way up observed a Mt. bluebird and several white-crowned sparrows. At first switchback made photo 750723-3 to N showing Snowy Range and alpine lakes. Lake Marie in foreground. A solitaire was observed in the Engelmann spruce to left. There were deer tracks all along the way. From one gopher hole water was flowing like a spring. From here to top of ridge above Marie Lake took several photographs.

Photo 750723-4 of the E slope of ridge. The green vegetation of the slope does not seem to conform to the present configuration of the snow field.

Photo 750723-5 Same general area as above.

Photo 750723-6 Cliffs above Lake Marie with old dead Engelmann spruce in foreground. The talus slopes are different in color according to the source from which they are produced. The common color is the white from quartzites; the other colors are from intrusive rocks.

Photo 750723-7 General view to N. Most of the photos to follow are from top of first knoll to left.
Photo 750723-8 Same as above, with some areas without vegetation from the receeding snows.
Photo 750723-9 Ridge to S showing cornice remnants. The black ridge on opposite side of canyon shows new tree removal areas, mainly near top of ridge where roads are available and others in bottom of canyon not visible in photo. Each open area shows a single patch of snow. The destruction of trees depreciates the scenic view from this area by 100%.
Photo 750723-10 Same as above.
Photo 750723-11 From vantage point shooting to N along face of perpendicular cliffs.
Photo 750723-12 Ibid. Conifer has been on this point for as long as I can remember.
Photo 750723-13 Same as above. Light conditions not favorable
Photo 750723-14 Same as above but horizontally framed with broader view of glaciated lakes. Note ice masses in lakes.
Photo 750723-15 Same area as above on ridge of Snowy Range but to SW.
Photo 750723-16 Same area as 2 above.
Photo 750723-17 Same area as above shots but with different foreground.
Photo 750723-18 Shear walls in same area as above. This area is above Marie Lake.
Photo 750723-19 Leaving vantage point a to SW

At the above photographic vantage point noted several pairs of robins. Some migratine nests originally under snow and now in open exposed situations and although not being used they have maintained their original shape and compactness. The vantage point is approx. 11,000 ft. Noted several fresh marmot diggings (holes) on ridge. Returned to Lake Marie and photo 750723-20 of outlet with cirque face in background. Continued up road and at a quartzite boulder lake just S (1/10 mi) from the east end of Mirror Lake made several photographs: next bottom line
Photo 750723-21 with Annette in foreground. (see next page for 750723-22)
Photo 750723-23 of this reflective lake and white quartzite boulders in ~~back~~ background. These boulders are intensely white and brilliant but area difficult to properly compose.
From the east end of Mirror Lake made several photos thus:
750723-24 Annette with lake in background. The road into

this ~~for~~ area is blocked by a snow drift at entrance of road leading along S side of lake. The dead Engelmann spruce has probably been killed by high waters.
Photo 750723-25 Same areas as above.
Photo 750723-26 ibid. This photo could be enlarged.
Photo 750723-27 ibid but with snow drift in foreground. The open area of lake in winter permits these drifts to develop at the east end of the lake, indicating that winds are from the west off the mountain range.

From a point N E of Mirror Lake at a pond approx 2/10 mi down road from last switchback leading to Libby Flats made the following photos.
750723-28 Lake, snow bank, range.
750723-29 ibid
750723-30 same area as above but with flowers in foreground. A deke is noticeable ~~in~~ near top of range in background.
750723-32 Bellamy Lake and Snowy Range in background. Columbines at left. Some red in snow. Good photo for enlargement.
750723-33 Same as above but to NW. Foreground just N of Bellamy Lake. Columbine on right. Good photo for enlargement.
Photo 750723-34 From slope just below Libby Flats shooting SW.
Photo 750723-35 From last switchback N of Bellamy Lake with Engelmann trees in foreground. The lake in distance. A pair of robins had 2 juvenile half grown (tail).
Photo 750723-36 Same area but to W. Considerable red algae on snow. Many areas just recovering from receding snows.
Photo 750723-37 Same area but to W. Brownish sedges and grasses support some <u>microtus</u> <u>montanus</u> in areas where there is relief from water.
Photo 750723-38 same area but to E up slope leading to Libby Flats. Several Citellus richardsoni in this area, some young ones.

In the Englemann spruce forest just N of last switchback set 50 traps 20 feet apart at base of trees or under or at side of logs on the ground. This area is the uppermost stand of large spruce trees and at its upper limits are krumholz. They are growing in the most favorable areas and as usually show evidence of larger trees in the past. From this trapline collected a Clethrionomys gapperi at 3:00 A.M just 1 hour after setting traps. It was along a dead tree in open between standing trees. This specimens was given number <u>750723-22</u> which is not in consecutive sequence but is listed with locality as follows:

2/10 mi. E, 3/10 mi. N Bellamy Lake (outlet), Snowy Range, Albany Co., Wyoming. elev. 10,820 ft.

July 23, 1975 (cont.)

From a trapline of 50 traps set at 2:00 P.M in relict. Engelmann spruce caught a Clethrionomys one hour later at 3:00 P.M from a trap under a log removed from main forest:

750723-22 Clethrionomys gapperi. 142-46-19-16-25 gms. ♂ testes 11 mm

This would indicate that the red-backed mouse is active during the day and that it ranges beyond the overhead protection of standing trees. The log still offered it overhead protection. In this area were 2 young robins with tails half size of adult length.

Continued to divide at Libby Flats, thence to road leading to Libby Lake and at the crossover at Libby Creek (enroute to Libby Lake made several photographs of snow bridging the creek.

Photo 750723-39? showing Libby Creek entering snowfield covering the drainage. The arch of snow is 50 feet across. Marsh marigold one of the first plants to grow in areas of receding snow. The areas of collapsed snow bridge should show damage to growing plants. The red algae is present ~~on~~ on these snows. 2 Canada jays and a white-crowned sparrow in this area. Altitude 10750 ft here. This ~~from~~ is as far as one can drive a car at this time of year.

From this area of the crossover of Libby Creek set 50 traps on sidehill to N and thence E for approx 1000 feet. This area is covered with a discontinuous stand of Engelmann spruce and like the first set is the uppermost stand of spruce before it develops to krumholz. This is the same area as trapped in previous years and so recorded in the journals.

Left area at mileage 3856.7 at 5:15 P.M. Sky stormy but with ~~bould~~ bold white clouds. A fisherman claimed that this area is too high for elk for this time of year and that he has not observed a bear in the last 4 years. On Libby Flats Photo 750723-40 of sheep trucks (3) unloading sheep. No wonder price of mutton is so high. Photo 750723-41 on W side of divide down from Libby Flats showing white & yellow flowers and Bellamy Lake in middle ground. At mileage 3858 marmot. Marie Lake at 3859.9 2 raven on ridge to W. At mileage 3865 natural reforestation in savanna. noted upper 5 feet lodgepole pines blackish. 3870 5 Canada jays in one group. 3874 turnoff to S Brush Creek Camp. Eutamias active at 7:10 P.M. 8:25 robin & young active. Sunflowers face east at sundown and not west. Picked up pioneer iron in sagebrush at camp. Some horse shoe nails included in assortment. Set 5 traps for Eutamias at camp.

750724-90

South Brush Creek, 1½ mi N, ¾ mi E Ryan Park (P.O.), 7950 ft., Carbon Co., Wyoming

July 24, 1975

From a single trap of a 5 trap set at camp:

750724-1 Eutamias 184-80-29-14-31 gms. ♂ testes 4 mm

From the 5 traps set at camp for Eutamias caught the above sometime before 8:00 this A.M. The robin is the most common bird at camp with the gray-headed juncos second and the Canada jay third. A tree squirrel (Tamiasciurus) regularly used an overflow drainage channel (along upper edge) for movement thru area, and is active at least as early as 7:35 A.M. Noted that Eutamias will carry food from camp and bury it in the ground. Left S Brush Creek Camp at 8:08 at 3876. and will keep record of all mammals observed to top of Snowy Range along road. 3876 Eutamias. 3876 porcupine road kill. 3879 Ryan Park turnoff. 3889 Eutamias. 3892.7 marmota. Arrived Checked the trapline at area N of Bellamy Lake and caught 12 mammals. no 750724-7 was a Clethrionomys gapperi caught in the same traps as the Clethrionomys caught yesterday afternoon at 3:00 P.M. Specimens 750724-4 10½ inches long partially eaten by a Canada jay (photo 750724-35). 5 jays, probably 2 adults and 3 young were feeding on 3 consecutive traps which held Clethrionomys. One immature, the above photographed, was captured by placing a cap over the bird as it feed on the dead mouse in the trap, even though the trap was first taken away from the jay and placed with 2 feet of my reach. It had no compunction in feeding within that distance. At one time it came to within one foot of my hat and hand. It called vigorously when caught and its calls in turn attracted the adults.

In one area of the trapline was a part of the skin of a porcupine completely cleaned of flesh, and another section of the same animal was taken 50' below on the sidehill. The Phenacomys was caught at the edge of a large, dead Engelmann spruce lying on the ground and among standing trees. It would be considered a protective area. The Eutamias and Clethrionomys seem to share the same areas of the forest.

The is evidence of snowmobiles using this area as evidenced by marks in the mud between snow banks. Noted one large tired vehicle in area on ridge to E. Mammals from above trapline are as follows:

2/10 mi. E, 3/10 mi N Bellamy Lake outlet, 10800 ft., Snowy Range, Albany Co. Wyoming.

July 24, 1975

From 50 traps in Engelmann spruce beyond last switchback are:

750724-2	Phenacomys intermedius		140-36-19-14 31gms ♀ 2x3 plac. scars
750724-3	Clethrionomys gapperi		138-37-19-14-30gms ♀ 3x3 emb. 15mm
750724-4	"	"	142-44-17-14-25gms ♀ 5x1 emb 9mm
750724-5	"	"	143-41-19-12-24gms ♂ testis 11mm
750724-6	"	"	128-37-18-13-18gms ♀ 5x2 emb 3mm.
750724-7	"	"	118-30-19-12-15gms ♀ ut. normal.
750724-8	Eutamias		193-85-30-14-41gms ♂ testes 5mm
750724-9	"		207-92-32-15-45gms ♂ testes 5mm
750724-10	"		187-78-30-14-36gms ♂ testes ?mm
750724-11	"		193-86-30-14-39gms ♂ testes 7mm
750724-12	"		195-87-30-15-43gms ♀ ut normal and small. non-lactating
750724-13	"		194-83-31-15-43gms. ♂ ~~ut normal~~ testis 15 mm

Continued to Libby Flats, thence to area of outlet of Lebby Lake where second 50 traps were set yesterday evening on sidehill of Engelmann spruce on N side of Libby Creek. arriving at mileage 3893. From trapline caught 14 mammals. and surprisingly no Phenacomys. This population can be compared to previous years trapping in same area. The community of this Engelmann forest is dry, soil under trees mainly of matted needles of spruce trees, many old, dead fallen trees, base of standing live trees bare, some green moss, no vegetation, some dry sticks but ground generally bare, cone and scales common at base of living trees, in Tamiasciurus territories mainly middens of ~~to~~ scales of cones. Best place for Clethrionomys is under canopy of forest especially low overhanging branches or areas with krumholzlike trees bordering stands of larger trees. Bases of large trees or along side of fallen logs are best areas, especially dissected root systems or under dead stumps.

Noted one live spruce bent from snow and overhanging a snow patch below had dropped a mat of needles onto the snow There were deer tracks in area, also pine siskin, Canada jay and Rocky Mt pine grosbeak. This trapline is on a south exposure and is protected, by vertue of its slope and exposure, from the supersaturated soils of some other exposures. There is a tendency from ridges of spruce trending up slope at an angle with intervening areas of open~~ness~~ slopes of cliffs or snow patches. The following mammals were placed on ice in an ice chest and prepared later in the day.

750724-92

3/10 mi. E, 1/10 mi. S of outlet Libby Lake, 10,720 ft., Snowy Range, Albany Co., Wyoming.

July 24, 1975

From 50 traps set in climax Engelmann spruce N of Libby Cr:

	750724-14	Clethrionomys gapperi	144-43-18-14-30gms ♀ 5x2 plac. scars.
	750724-15	" "	143-44-18-14-27gms ♀ 4x4 plac scars.
	750724-16	" "	157-51-19-15-30gms ♀ 4x4 emb 3mm
	750724-17	" "	151-42-19-14-30gms ♀ 3x5 plac scars
SKULL only →	750724-18	" "	111-33-18-11-14gms ♂ testes 7mm
"	750724-19	" "	116-35-18-11-14gms ♂ testes 8mm
M1 only	750724-20	" "	109-37-18-11-11gms. ♂ testes 7mm
SK only.	750724-21	" "	112-33-18-11-15gms. ♀ ut normal
	750724-22	Eutamias	198-88-30-14-40gms ♂ testis 4mm
	750724-23	"	208-94-30-14-48gms ♀ extensive mammary glands 2x3 plac scars
	750724-24	"	195-82-30-14-43gms ♂ testes 5mm
	750724-25	"	206-87-31-15-54gms ♀ 2x4 plac scars
	750724-26	"	199-92-31-14-39gms ♂ testes 5mm (white)
	750724-27	"	191-81-31-14-35gms ♂ testes 6mm

There seems to be a variation in the testes of the above Eutamias, some white and on the round side ○ and some bluish and elongated thus ⬭ and may be associated with young in the former case and old animals in the latter case.

At the crossover of Libby Creek ~~enroa~~ enroute to Libby Lake and below the trapping area made a photo of the ~~the~~ snow field over ~~the~~ Libby Creek no. 750724-28 showing good exposure of the red algae (see previous years notes for name of algae). Photos 750724-29, 750724-30, 750724-31, 750724-32, of this same area showing low snow fractures along edge of overhanging bridge. Photo 750724-34 of nature of color of algae when one steps on the snow. The compaction intensifies the red color. (Photo 750724-35 of the young Canada jay captured on trapline above Bellamy Lake (see previous notes for proper place in field notes). Below the snow field over Libby Creek are signs of the porcupine having eaten the bark of the willows, just now recovering from the receding snow and leafless & brown. There are no microtine runways among these willow stands. Noted a pipit on snow bridge above the Creek. It was feeding on insects caught in the snow. The white-crowned sparrow also fed on the snow and retreated to the spruce ~~on~~ bordering the snowfield when disturbed. A robin was also noted on the snow at edge of creek. A mushroom grew in the snow and was whitish and cold to touch as if partly frozen.

750724-93

Left Libby Creek area and returned to Bellamy Lake area where I left at 11:25 for the Sugar Loaf Mt area and the Medicine Bow Peak, the objective was to gain sufficient heighth on the slope of Medicine Peak to photograph the Snowy Range Cirques to the south. Clouds increasing and not much prospects for good light for photography. Enroute from the last switchback on road to Medicine Bow Peak observed several white-crown sparrows, 2 pine grosbeaks, 4 Canada jays, several gray headed juncos. Route N thence W to ridge leading into cirque between Sugar Loaf and Medicine Bow Peak. In the meadow at head of canyon N of switchback (SE Sugar Loaf Peak) observed several runways of microtus montanus in heavier grasses (brownish of last years growth and these runways in areas free of the flooding and supersaturated soils of the meadows.  nests of grasses undisturbed and not being using currently by the microtines. Coyote droppings in the area. Occasionally marmot tracks across snow fields, as well as deer tracks. Several pairs of robins were at base of Sugar Loaf Peak. Some wide tracks as if mt sheep.

The cirque just south of the Medicine Bow - Sugarloaf Peak is one of the most interesting valleys of the area, suggesting arctic conditions. Photo 750724-36 of the most eastern lake near the SW base of Sugar Loaf Peak showing the reflected ridge of the Snowy Range. The grasses and sedges on the N side of this lake are formed as hummocks as is so typical of the arctic vegetation. Continued N to pass between Medicine Bow Peak and Sugarloaf Peak. A sign here: Lake Marie via Medicine Bow Peak 4 7/10 mi; Lewis Lake 1 1/2 mi; Medicine Bow Peak 1 mi; Mirror Lake via regular route 2 mi. Photo 750724-37 from this pass and toward the N with divide between South Gap Lake and North Gap Lake. The only granite in the area is a localized area to the right of South Gap Lake. Ordinarly in August the snow on talus to left meets the lake at a straight angle but now the snow angles and runs out onto the lake. The krumholz in foreground is suitable for trapping.

Photo 750724-28 to S along east exposure of the N-S axial remnant of the Snowy Range. Light unsatisfactory for photography this P.M.

Photos 750724-29 to 750724-45 as above but with varying foregrounds and amount of ridge in pictures. This area would be good for photo of this range under proper lighting conditions

Photo 750724-46 to NE showing the dome shaped mountain (Browns Peak), South Gap Lake to left and glaciated plateform to right. This area is excellent for hiking.

(from one page beyond)

* On W side of valley there are 5 open areas among the conifer trees, each in a different succession. This is due to propinity of the benchland beyond the mouth of the canyon and not to random succession following fire. The one nearest the lower valley is with the least amount of vegetation & the greatest amount of soil & rock surface.

Photo 750924-47 From E ridge of Medicine Bow Peak showing area to N. and Browns Peak to right. Snow on slope with talus of quartzite being exposed.
Photo 750924-48 Snowy Range to S.
Photo 750724-49 Snowy Range to S showing the uppermost alpine lakes. Krumholz should be tested for microtunes, Borex etc. Lower lakes partly in ice. The ridge of range beyond peaks may have been part of the old glaciated platform. This general area thru center of picture is inhabited by marmot & pika. Lenticulate on upper slopes beyond crest of range.

Most of the above photos were from pinnacle just E and down from Medicine Bow Peak. This vantage point would be an excellent area for photography under better lighting conditions. Six ravens flew S along face of this range, near top feeding on various snow fields. The red algae on snow is on all slopes and elevations, some areas better than others. Deer tracks as high as I climbed. A Eutamias probably minimus at the vantage point. Also 3 isolated pairs of adult robins on slope and moving across the area as if past breeding peregrinations. Wind on slope negligable. Before leaving vantage point observed the effects of the wind on the vegetation of the upper alpine valley below. Arrows (red) indicate direction of wind as determined by growth of krumholz. Upper lake below clear but dark in center. One group of 4 robins, others in pairs. Rocks on & leading to pass to N (bare pass) have a blackish lichen. Krumholz N E of upper lake has few boulders than those on NW slope below Medicine Peak.

Returned to pass and noted a pika carrying a large yellow flower which defeated any protective camouflage the pika may have had. At reflection lake from N side of lake took photos 750724-50 to 750724-55. Photo 750724-52 with grassy hummocks which are similar to those in the arctic. Microtine activity in these areas, especially where there is a slight relief. All shots to SW in general direction with Snowy Range reflected. I know of no other area with this type of plant topography. Photo 750724-56 east of east divide and heavy concentration of red algae on snow (from imprint on snow). Continued on to SE, slid down snow fields and arrived car at switchback at 2:15 P.M. and thence returned to S. Brush Creek Camp.

South Brush Creek, 1½ mi. N, ¾ mi. E Ryan Park (P.O), 7950 ft., Carbon Co., Wyoming.

July 25, 1975 min temp 40°F, sky clear this A.M

From composite:

750725-1 Cutaneus 210-94-31-15-47gms. ♀ wt normal heavily lactating

This is an example where normal uterus is associated with well developed mammary tissue and enlarged nipples and bare area around nipples.

Chipmunks are not as numerous in this camp as other camps. Noted an adult robin feed 2 young robins whose tails were ½ as long as adult. They could fly. The young did not solicit food but waited for the adult to offer the food to the young although the young followed the adult in search of food. Placed food (bodies of macroinvertebrates on branches of tree and 3 Canada jays fed on these bodies for approx. 2 minutes and although there was plenty of food available, they left the feeding area and moved on as if they did not want to build up an activity site to attract other birds. They returned later, and again for only a short stay.

Left South Brush Creek and travelled down Canyon at 2:00 P.M at mileage 39.3. * (second page forward) At 39.7 at mouth of canyon noted a golden eagle circling above. It was an adult and circled NW. Between here and across the benchland to N Platte River noted 4 Citellus richardsoni. Arrived North Platte River 39.26 mileage. In addition to the 4 live ground squirrels noted above on these benchlands noted 6 road kill ground squirrels (Citellus richardsoni), 1 magpie and surprisingly no sparrow hawks. Ordinarily there are several in this area. This scarcity of sparrowhawks is general throughout the country.

At the railroad crossing W of the river (N. Platte) saw the first prairie dog. Between here and the junction to W ~~and~~ on the S side of the road counted 150 holes or mounds of the prairie dog and 12 live prairie dogs. Junction at 39.26.8. To north beyond junction observed prairie dogs on both sides of the road as well as 3 prairie dog road kills. There were citellus holes on railroad grade every 20 feet. In the praire dog area N of the junction noted the following road kills: striped skunk, 3 prairie dogs, cottontail rabbit Saratoga at 39.34. The piles of antler in town impressed one with the amount of mineral extracted by deer from their environment. Camped S end of dam of Saratoga Lake. Set 50 traps below dam along cattail of old river course. A wilson snipe in area set with traps. 20 nighthawk fed in area over the marshland.

750726-96

1 mi N, 3/4 mi. E Saratoga, approx 6900 ft., Carbon Co., Wyoming.
July 26, 1975

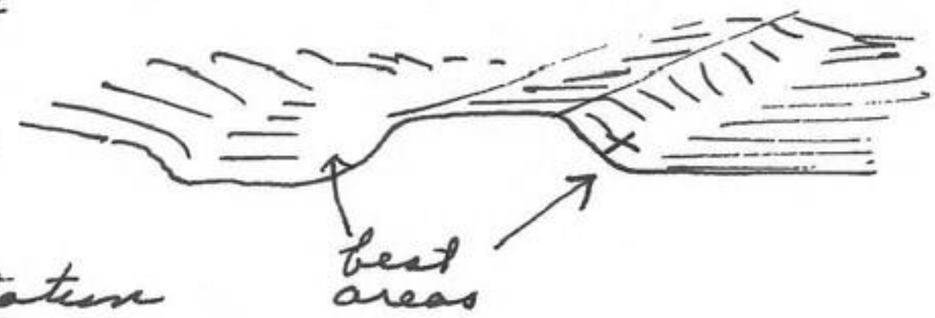
From 50 traps set in marsh at dam of Saratoga Lake along slough:
750726-1 Sorex 112-47-13-7-5 gma ♂

The Sorex was the only mammal collected from the line of traps although conditions appeared favorable. It was captured from among the rushes and sedges along the slough. Birds in area: long-billed marsh wren, coot, pied-billed grebe, yellow-headed blackbird, redwing, swallow, lesser yellowlegs, nighthawk, eared grebe?, One of the pied-billed grebes captured a large crayfish and after considerable struggle (at least 5 minutes) finally swallowed it. minimum temperature last night 55° F. Also in area were Citellus richardsoni, Brewers blackbirds and one flock of approx. 1500 redwings. The is considerable environmental change of valley slope at this camp by motorcycle slope trails and automobile trails. The greatest activity of Citellus richardsoni is in the area of greatest vehicle disturbance which might, along with the rest stop campsite, account for reduction of predation by coyotes.

Left for Saratoga at 9:10 am at 9340.7 for maps. approx 3/10 from Saratoga (at river) a shrew and chipmunk ran across the road. Will keep lists of birds & mammals. Left Saratoga 3942.8 at 9:35 A.M. Cliff swallows, barn swallows, sage thrasher and red-shafted flicker in area. 3949 jackrabbit. 3952 antelope 3953 2 antelope. 3953.2 jackrabbit road kill. 3953.6 jackrabbit road kill. 3960 at bridge 3 jackrabbits road kill and 5 magpies, 2 Brewers blackbirds. 3961 2 jackrabbits 3962 Walcott, now to W on main road. 3968 6 Brewers blackbirds 3968.7 N. Platte River. 3970 24 antelope in one mile. In pond about 1 mi E Rawlins 15 ducks only. This pond is usually inhabited by more ducks & shorebirds. Left Rawlins 3991 at 1:25 4004 Antelope. 1 Brewers so far. 4008 2 young & 1 adult antelope together. 4009 2 young & adult antelope, one of the two nursing. 4017 antelope 4018 antelope. 4025 badger road kill. 4033 badger road kill. 4044 Wamsutter. Contacted individual Mr. Moyer who had been in Red Desert to N & S. He advised us not to go because of condition of road and remoteness. a heavy rain would delay one for 2 or 3 days. There will be days in which no one will pass along these roads.

Left N from Wamsutter for the Red Desert at 4044.2 at 3:20 P.M will keep complete list of birds and mammals. 4044.6 Citellus richardsoni road kill. 4046.7 horned lark. 4047.1 first artemisia draw. 4047.6 5 horned larks. 4048 fence barrier

4048.7 horned lark. 4050. 2 horned lark and 1 jackrabbit road kill. First evidence of shifting sand and shrubs. 4050 4 horned larks, sage thrasher, 4052 3 horn larks. 4053.7 gate. 4054 2 horned larks. 4054.2 ~~end bard + normal canon~~. 4056.1 jackrabbit road kill. 4057 live Sylvilagus. 4057 3 sage hens. 4057 jackrabbit. 4053 horned lark. 4058.1 turn to Luman Ranch 23 miles at 4:45 P.M. 4057.7 prairie dog. A sign gave following mileages: 14 mi Luman Ranch, Wamsutter [to S and Crooks Gap Rd 7 mi]. mileage at this crossing is 6066.3. 4070.8 Antelope road to left but continued straight 4071.2 2 prairie dogs. 4071.3 marsh hawk and 3 prairie dogs. 4073.3 1 young Cottontail. 4074 7 lark buntings. 4074.9 sign Tipton 26 miles. 4076.1 Reg No. 18 Delta Drilling Co to right or north but continued W along sand ridge. This sand ridge, now grown to shrubs and vegetation runs ESE and originates from moving sand dunes to the west. The line is straight with abrupt S edge that rests upon a flat surface of the Red Desert of red soils. There are many small birds along this ridge. 4076 one adult and 4 young sagehens. 4080. fence and moving dunes beyond. Camped here at base of sand dune which is 36 miles from Wamsutter. Arrived at 7:20 P.M. The road has been very dusty and locally rough, especially where road as diverted former mudholes. One has no problem pulling a trailer and under normal dry weather is no problem. A rain, however, would stop foreward movement and one would have to just wait until the roads would dry which could be a day or two or more depending upon the amount of rain. This evening set 100 traps for Dipodomys. The best sets seemed to be at edges of blowouts and at the base of the actively moving sand dunes where there was some short vegetation



Coyote tracks common in area, especially on sands. Two marsh hawks passed by. The mosquitoes are rare but moths common at night. Some of the smaller birds include the sage sparrow, chipping sparrow, sage thrasher, lark buntings. Traps set at entrances of holes and in depressional areas in sand dunes. A better set would be to excavate hole and place trap so that the Dipodomys would be required to cross the trap. Areas between parallel ridges of sands are grown to good shrubs and are islands of vegetation in the desert.

750727-98

Luman's Ranch (sanddunes), approx. 18 mi. N, 12 mi W Wamsutter, ft., Sweetwater Co., Wyoming

July 27, 1975

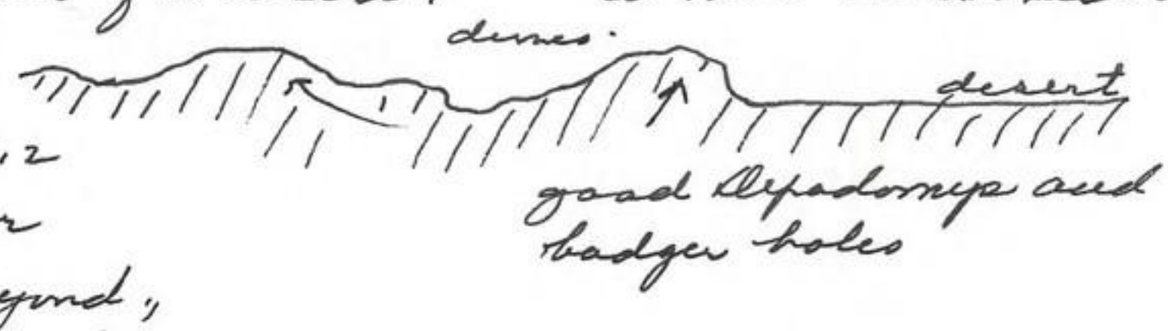
min temp 47°F last night.

From 100 traps set on sand dunes:

750727-1	Eutamias minimus	187-83-29-14-36 gms ♂ testes 4 mm
750727-2	Peromyscus maniculatus	170-80-20-18-25 gms ♂ testes 10 mm
750727-3	" "	147-61-20-18-20 gms ♀ 2x3 emb 5 mm
750727-4	" "	148-61-20-17-22 gms ♀ 1x2 emb. 19 mm

Only 2 tips of tails of Dipodomys were in traps and I would have expected a good catch. These mammals are definitely not coming to traps. Cattle had trampled local areas of sandunes, especially in centers of blowouts ~~tt~~ where the soils were damper than elsewhere, and in many areas where Dipodomys were most common, especially around mounds supporting vegetation in the form of short shrubs. A foxtail grass and another light colored grass were dominant in the area. At 10:00 A.M the temperature was ideal and there was absolutely no wind. At 11.20 made photos 750727-5, 750727-6 and 750727-7 of sandunes at camp. mourning doves in area.

Left dunes at 4080.8 at 11:45 A.M. Photo 750727-8 of S edge linear dunes with Red Desert to S. In this area the dunes are low and broad and the Red Desert is red from natric rocks but otherwise does not have the characteristics of a desert. A N-S cross-section of these linear dunes is:



At 408.9 marsh hawk. 4086.2 end of linear sand dunes or 4.5 miles long. Open sands beyond, with some rock outcrops just to E.
4087 a young Citellus. 4088 2 adult and 2 young Citellus in road.
4089 2 adult Citellus in road. 4089 3 mourning doves.
4090 prairie dog. 4091.7 crossing a culvert from a pond to the NE. A shrike here as as a marsh hawk. 4092.1 gate and a chipmunk ran across the road (Eutamias minimus?). 4093 Citellus. 4103.1 at 1:45 P.M. marsh hawk (2 roads converge).
4107.5 fence. 4 sage hens resting in shade of fence posts at gate.
4113 marsh hawk. 4116.6 Interstate 80 just east of Wamsutter. at 2:30 P.M. 4122 antelope W of Wamsutter. (just remembered name of old timer at Red Desert on Interstate 80, a mr. Moyer.
4132 badger road kill. 4141.6 19 antelope by water hole. A whirlwind crossed this pond and the antelope reacted by reflexively jumping away from the pond to about 15' where they permitted the wind to pass ~~tt~~ among them. Left Inter. 80 and camped on highway 372 5 mi. N of 80 photos 750727-9 and 750727-10 of sunset to W from ridge where we camped.

750728-99

on Highway 372 1.5 mi N Interstate 80,
3 mi N, 3 mi W Riview, ___ ft., Sweetwater Co., Wyoming

July 28, 1975

From 50 traps set in holes of disturbed areas among sagebrushlike plants.

750728-1	Onychomys leucogaster	133-35-20-17-25 gms ♂ testis 5 mm
750728-2	Perognathus	[85] [23]-18-7-8 gms ♂ testis 4 mm
750728-3	Peromyscus maniculatus	155-66-21-17-20 gms ♂ testis 9 mm
750728-4	Eutamias	208-92-29-14-40 gms ♀ ut normal, nipple enlarged.

The traps were set in sandy areas, mainly in old holes of gophers, badgers and Citellus. On arrival last night noted one chipmunk. no mammals in traps on a check at 9:10 P.M.

July 28, 1975

min temp last night 57°F. A jackrabbit left the trapline among artemisia and other colored artemisialike vegetation. The morning pollution forms a line to the W, N, E + S and is about the same elevation as the plateau ~~we~~ we are on, Some pollution below our level. This pollution now contaminates an atmosphere that has always been crystal clear in this part of Wyoming and it is a shame that one or two plants can destroy the beauty of this country. There is some noise pollution from the railroad trains that follow Interstate 80. Left 12:00 A.M or PM ? (noon) Entered main road 372 at mileage 4228.1 and will travel N. 4231 antelope. 4233 sparrow hawk. 4234 passing by entrance to Stauffer Plant. 4247.6 golden eagle with tail approx 1/2 white  . This eagle was circling about 300' above the ground. 4248.8 8 prairie dogs on slope above valley level. Jack rabbit road kills average 1 per 2 miles in this valley. 4254 marsh hawk. Artemisia all along our route. 4261 Fontenelle. 4264.9 dam. Photo 750729-5 and 750729-6 from SW end dam area showing reservoir. Cliff swallows numerous in bank below our observation point. Continued on short cut to highway 189. At 4267 2 prairie dogs. 4269.2 Highway 189. ~~Instructed~~ noted the following birds on Fontenelle Reservoir at mileage 4274: California gull, eared grebe, mallards, cliff swallows, Brewers blackbirds, cowbirds. 4293 greasewood yellow and dead. Big Piney 2:40 P.M at 4308. 4313 2 prairie dogs. 4316 Citellus. 4323 Citellus now generally distributed along the road and in the valley. 4332 at Green River. 4335 3 adult, 2 young and one adult albinistic antelope. 4336 redtail. 4337 2 antelope. 3438 4 antelope. 4340 redtail hawk. 4341 1 adult & 2 juvenile antelope. 4343 raven. 4345 Citellus increasing in numbers. 4351 Divide. 4353 maximum numbers of Citellus. 4356 2 ravens. 3490.3 Hoback junction. Continued to Jackson and then returned to Hoback Forest Service Camp grounds.

750729-100

Hoback Campgrounds, Hoback River, 7 mi from Snake River (by road), Sublette Co., Wyoming.

July 29, 1975

min temp last nite 50°F, also some at 7:00 A.M this A.M

From 100 traps set on canyon floor and base of mts caught:

	750729-1	Zapus princeps	246-146-33-15-35gms ♀ ut normal, lact.
	750729-2	" "	243-147-33-15-29gms ♀ ut normal, lact.
SKi	750729-3	" "	[228]-[133]-30-14-26gms ♂ testes 5mm
	750729-4	" "	243-143-33-15-33gms ♂ testes 7mm
	750729-5	" "	241-150-31-15-31gms ♀ ut normal, lact.
SKi	750729-6	" "	240-143-31-14-26gms ♀ ut normal
	750729-7	" "	253-160-34-16-34gms ♀ ut normal, lact.
	750729-8	Clethrionomys gapperi.	128-38-18-14-18gms ♂ testes 10mm
	750729-9	" "	124-36-18-14-16gms ♂ testes 9mm
	750729-10	" "	132-38-18-14-20gms ♂ testes 9mm
	750729-11	Peromyscus maniculatus	183-84-21-17-24gms ♀ ut normal
	750729-12	" "	178-78-21-17-31gms ♀ ut. normal
	750729-13	" "	148-68-20-17-15gms ♀ ut. normal.
	750729-14	microtus	166-54-20-12-30gms ♀ 0x3 emb 8mm
	750729-15	"	175-61-20-14-45gms ♂ testes 12mm
SKi	750729-16	Eutamias	222-100-33-18-60gms ♀ 3x3 ploc scars
skull only	750729-17	Zapus princeps	216-136-32-13-16gms ♀ ut normal
meas. only.	750729-18	" "	193-110-30-14-16gms. ♂ testes 4mm
skull only	750729-19	" "	223-143-31-15-18gms ♀ ut normal
m. only	750729-20	microtus (same as 750729-14)	152-53-20-14-28gms. ♂ testes 9mm
skull only	750729-21	" "	159-53-20-14-26gms ♀ ut. normal
m. only	750729-22	" "	158-55-19-14-25gms ♂ testes 9mm
m. only	750729-23	clethrionomys gapperi	128-35-18-13-16gms. ♂ testes 8mm
skull only	750729-24	Peromyscus.	172-70-21-19-24gms. ♀ ut normal
m. only	750729-25	"	152-64-21-17-15gms ♀ ut normal
"	750729-26	"	169-72-21-18-21gms ♀ ut normal
"	750729-27	"	165-74-19-18-21gms ♂ testes 4mm
"	750729-28	"	162-72-20-18-19gms ♂ testes 2mm
"	750729-29	"	163-72-21-18-20gms ♂ testes 2mm
"	750729-30	"	153-62-20-18-16gms. ♂ testes 3mm
skull only	750729-31	"	172-73-21-17-20gms. ♂ testes 5mm
"	750729-32	"	168-71-20-18-19gms. ♂ testes 4mm
"	750729-33	"	159-71-20-18-16gms ♂ testes 3mm
"	750729-34	"	165-69-21-18-19gms ♂ testes 4mm
skull only	750729-35	"	184-80-21-20-22gms. ♀ ut vascular but small
m only	750729-36	"	169-73-20-18-19gms ♂ testes 4mm
skull only	750729-37	"	170-72-20-18-21gms ♂ testes 4mm
m only	750729-38	"	156-64-21-18-15gms ♂ testes 3mm

750729 - 39	Peromyscus	161-71-20-17-16 gms, ♂ testes 2 mm
750729 - 40	"	154-66-20-17-17 gms ♂ testes 2 mm
750729 - 41	"	[150]-[62]-21-17-16 gms ♂ testes 2 mm
750729 - 42	"	157-65-20-17- 15 gms ♂ testes 2 mm
750729 - 43	"	148-61-18-17 - 13 gms ♀ ut normal
750729 - 44	"	158-68-19-17-17 gms ♂ testes 3 mm
750729 - 45	"	163-73-20-18-17 gms ♂ testes 3 mm
750729 - 46	"	146-63-19-17-15 gms ♂ testes 2 mm
750729 - 47	"	157-68-20-18- 15 gms ♂ testes 3 mm
750729 - 48	"	155-73-21-17- 13 gms ♂ testes 3 mm
750729 - 49	"	151-66-20-17-16 gms ♀ ut normal
750729 - 50	"	158-67-20-17-14 gms ♂ testes 3 mm
750729 - 50a	"	142-60-19-17-14 gms ♀ ut normal

all traps in by 8:00 A.m. Rained last night and river muddy and higher.

Traps left set during the day from 8:00 AM to 12:00 noon with occasional rain and caught:

750729-51	Eutamias	223-108-35-17-60 gms. ♀ ut normal.
750729-52	"	211-98-33-17-46 gms ♂ testes 5 mm
750729-53	Zapus princeps.	230-138-30-14-27 gms ♂ testes 6 mm

From along a creek flowing down mountain side at 5:00 P.m was steam with air temperatures at 59° F.

Left Haback camp at 5:06 P.m at mileage 4422. 4429.6 Convergence of Snake River and Haback River. Continued N to Jackson and thence E to base of mountain, thence N and finally E to base of same range thence up road to a vantage point ~~at~~ near a camp grounds. At mileage 4451 at 7:00 P.m from E ridge E of Jackson Valley photographed valley to W, photo number 750729-54 and to E up an erosional valley number 750729-55. The cliffs on left side of this canyon would be ideal cliffs for nesting site of the golden eagle were it not for the near proximity of the forest service camp. In this area noted 2 redtails and 1 Eutamias and 4 Mt. bluebirds. On return down road to valley level made the following census of Citellus (recorded by mileage) from vantage point at 4451. (7:07 P.m)

51.4	Citellus
51.5	"
51.5	"
51.7	"
51.9	"
52.0	"
52.3	"
52.6	"
52.7	"
52.7	"
52.7	"
base of mountain	

There were no citellus in valley beyond the base of the mountain, at least at this time of day.

750730-102

Hoback ~~River~~ Campgrounds, Hoback River, 7 mi from Snake River (by road), Sublette Co., Wyoming

July 30, 1975

From 100 traps set last night (followed by heavy rains) collected:

	750730-1	Zapus princeps	231-134-33-15-30 gms ♀ ut. normal.
	750730-2	" "	240-141-33-15-31 gms ♀ ut normal, lact.
	750730-3	" "	235-146-32-15-26 gms ♀ ut. normal
	750730-4	" "	232-142-31-15-29 gms ♂ testes 6 mm
	750730-5	" "	235-141-31-15-30 gms ♀ ut. normal
	750730-6	Sorex navigator	145-78-21-7-9 gms. ♂
m. on	750730-7	Clethrionomys gapperi	120-33-17-13-14 gms. ♂ testes 5 mm
"	750730-8	" "	110-32-17-12-12 gms ♀ ut. normal
"	750730-9	" "	122-34-17-12-16 gms ♂ testes 7 mm
skull m.	750730-10	Peromyscus	164-72-20-17-22 gms ♂ testes 4 mm
m. on	750730-11	"	149-68-21-18-17 gms ♀ ut normal
"	750730-12	"	146-66-20-18-15 gms ♀ ut normal
"	750730-13	"	148-62-20-16-14 gms ♀ ut. normal
"	750730-14	"	151-64-20-17-16 gms. ♀ ut normal
skull m	750730-15	"	[90]-[0]-20-17-16 gms ♂ testes 2 mm
m. only	750730-16	"	144-58-20-18-15 gms ♀ ut normal

On trapline noted a snowshoe rabbit cross the trapline as well as 2 live microtus. The three Clethrionomys were in consecutive traps which, as usual, are 20' apart.

I am impressed with both the lush nature of the vegetation, reminding me of the NW and the great numbers of mammals in this area. Noted one pika and it's haystack near trapline.

Left camp at 4480.9 at 4:50 P.M. 4499.0 junction with Snake River, now to W. At 4500 photo 750730-17 of Snake River at East Table Creek, showing usual nature of water flow. Other areas, especially beyond downstream are rough with good cascade for river floatation trips.

Arrived Alpine Junction at mileage 4511.7. 4527 observed the second sparrow hawk since leaving Lawrence which seems somewhat incredible for this species. At Etna noted 8 Franklin gulls. Arrived Swift Creek Camp grounds 2 mi. E Afton. Set 50 traps along creek above camp among spruce, willow, alder etc. Most of these were along an overflow creek channel which was stabilized and supported aquatic plants and mosses. Some traps along base of talus slopes and others in thick grasses and sedges among willows along the creek. Observed a snowshoe rabbit and several chickaree in the trapping area. At 5 minutes after the last trap was set it started to rain and of an intensity sufficient to trip most traps.

750731-103

Swift Creek, 2 mi. E. Afton, ft., Lincoln Co., Wyoming.

July 31, 1975

From trapline set last night among spruce, willow, alder etc:

	750731-1	Peromyscus maniculatus	184-88-21-18-24 gms ♀ ut. normal.
m only	750731-2	Zapus	190-118-30-14-12 gms ♀ ut normal
	750731-3	Clethrionomys gapperi	142-41-18-14-25 gms 2x4 emb 8 mm some resorption.
	750731-4	" "	130-38-19-13-18 gms. ♂ testes 10 mm
m. only	5	Peromyscus maniculatus	153-70-20-17-14 gms. ♀ ut normal
"	6	" "	154-71-21-18-17 gms. ♂ testes 3 mm
"	7	" "	150-64-20-16-13 gms ♂ testes 3 mm
"	8	" "	145-65-20-17-14 gms. ♂ testes 2 mm
"	9	" "	160-76-19-17-15 gms ♂ testes 3 mm
"	10	" "	159-72-20-17-16 gms. ♀ ut normal.

minimum temperature 41°F last night.

Left Camp at 12:50 P.M at mileage 4546.1 noted chipmunks and sandpipers in reservoir below the above camp.

4577 Idaho State line. At a marina on W side of Bear Lake just before road turns W up over mountain, photographed a marina no 750731-11. The color of the water of this lake is unbelievably blue at certain times. From the sidehill W of here at 4629 mileage photo 750731-12 of Bear Lake to the E. At one time I circumnavigated this lake (by foot). Continued up over this range and down to Logan on W side. where we visited with Sydney Bayle at Hyde Park just N of Logan. Syd has a home on Bonneville level? and is the last house on slope of mt. (phone 563-5302). Syd has taken early retirement because of a heart attack and claims it's the only way of life. He has given up hunting of ducks and deer and even target shooting. and he claims was an abrupt decision. Rowena had her violin stolen just a few days before we arrived which had been a tradional instrument in the Christensen family.

Left Sydi ~~at~~ and thence to Bear River Refuge, arriving at 10:35 P.M a few miles east of the administrative buildings.

Bear River Refuge, W of Brigham City, Utah.

Aug 1, 1975

made trip around W lake of refuge by car and observed the following birds. Redwing, Eng. sparrow, avocet, blackneeked stelt, barn swallow, yellow-headed blackbird, bank swallow, cliff swallow, Canada goose, white-faced glassy ibis, egret, killdeer, Calif gull, Forster's tern, mallard, meadowlark, horned lark, coot, mourning dove, black-crowned night heron, ~~American~~ western grebe, great blue heron, least sandpiper?, western sandpiper, Franklin gull, long-billed dowitcher, black tern, spotted

sandpiper, ruddy duck, godwit, cinnamon teal, long-billed curlew, green heron. muskrats present.

From tower at the administration building made photo 750801-1 of lake to N with diversion channels and 750801-2 to car and trailer below. Left and near Brigham City photographed a field of red dock no 750801-3. In Ogden at the ASCS at 2505 Parleys Way purchased a photo of Timpanogos (Stewarts Cirque area) and an aerial shot of Provo Bay area and mouth of Provo Canyon nos 750801-3, 750801-4 and 750801-5. These are Forest Service Maps. Continued S to Provo, arriving at 4:00 P.M. Stayed at KOA, W of Provo.

Provo, Utah Co., Utah

Aug. 2, 1975

Mary had returned from Europe and we visited in the A.M. In the afternoon visited the B.Y.U. museum of Natural History with Wilmer Tanner. Plans are underway for a $2,000,000 museum to house the Beam collection of mounted trophy heads and other natural history specimens.

Provo, Utah Co., Utah

Aug 3, 1975

Mary and Chris arrived from Seattle, Mary having spent part of the summer on the west coast of Vancouver Island and James Robert arrived from Lawrence, all ~~in~~ preparatory to floating the Green River.

From the Provo City surveying office acquired a set of maps of ownership plats SW of Provo (nos 750803-1 to 750803- . and 3 Xerox copies of the Mudlake, SW Provo area.

From the County Planning Office got 3 enlargements (Xerox) of the 2 ~~dikes~~ reefs that cross the land between Provo Bay & Utah Lake S of the airport (nos. 750803-100, 101 and 102.) Photo 750803-103 of place where Mary lives and 750803-104 of home across the street, all on Bonneville level

Aug. 6, 1975

Left Provo for Split Mountain in the Dinosaur National Monument arriving at 10:00 P.M after having made arrangement with Western Rivers Expeditions in Vernal.

Split Mountain Camp, Dinosaur National Monument, Uinta Co., Utah.

Aug. 7, 1975

At camp and nearby took the following photographs: 750807-1 from bridge over Green River to N. Photo 750807-2 from camp with artemisia in foreground and massive sandstone wall (Weber Sandstone)

in the background. Photo 750807-3 and 750807-4 of same general setting but flowers ~~of~~ in the foreground in the former case and in the second case with the Chinle, Navajo formations in the background. The largest Artemisia measured in camp was 10½ feet high. Left camp in Western Rivers Expedition bus at 10:20 A.M. Mr. Ken Harper was to be our guide in the raft. We followed the road that leads west around the mountain and thence east to the Green River, the route being formed by erosion of beds dipping away from the Split mountain. The mourning dove most common bird enroute. Stopped at petroglyphs on N side of canyon near putin and made 5 photographs.

750807-5 Fremont peoples, square shoulders.

750807-6 " " " " and circle.

750807-7 Several Fremont peoples, one with circle.

750807-8 Ibid but closeup of circle.

750807-9 Jay, Annette, Chris + Polly on trail below petroglyphs, entrance of upper split mountain canyon in distance

750807-10 Same view as no 7 above.

Continued E to put-in where we had a chicken dinner and then group set off in 2 rubber rafts and floated nonstop to Dugelsby Rapids where we had lunch. Mr. Harper is a student in physical education at Brigham Young University and was able to give us the greatest trip within reasonal limit of control such as hitting cliffs, edges of large river boulders and in all cases the highest water turbulence along the way. At ~~Dugel~~ Dugelsby Rapids (named after Dads friend) photo 750807-11 of James Robert Bee at head of raft, really ~~[illegible]~~ secure! 750807-12 up river from Dugelsby Rapids (Rapids in foreground). Jay Chris & Polly all done off rock to left. This area is one of the most sandy areas along the river. Continued down river. Photo ~~750807-13~~ of James Robert guiding raft for approx ½ mile. Photo 750807-13 of leading raft. Photo 750807-14 of Weber sandstone near mouth of canyon (Split Mountain). Photo 750807-15 of the two Annettes nearing mouth of Split mountain. Photo 750807-16 of James Robert. Photo 750807-17 of Mary, at mouth Split Mt. Canyon. The nest but not the golden eagle was observed in usual place on S side of river at last major curve in river. Arrived at 3:30 P.M.

At Split Mt. Camp at mouth of Split Canyon made photo 750807-18 of Chrysothamnus in foreground and reds of Moenkopi + Chinle in background. Photo 750807-19 of the three river voyageers from camp.

Left and drove to Dinosaur Nat. Monument museum. Enroute on N side of road counted 15 prairie dogs in valley before main Green

River Valley, all in monument. visited museum and then drove to Vernal, thence N to a Forest Service Camp, Red Springs at 8000 ft. elev.

Red Springs, Daggett Co., Utah.

Aug. 8, 1975

min. temp last night 34°F. Left camp and drove to Dutch John Service (P.O. Box 277 phone 801-885-3431) where we rented a raft ($20.00) and returned to put-in below Flaming Gorge Dam. A slip of the usual access road require a put-in nearer the dam. Jay, Chris and Polly were to run the Green River to Little Hole where we were to leave the car and hike up the river to meet them half way. Took several photographs of the raft as it left the put-in.

Photo 750808-1 of Polly, Chris & Jay manuevering position for a rapid.
Photo 750808-2 Polly & Jay in front, Chris in rear as they started into a wall of water. This was Jay's first experience with rafting whitewater & he is so adjusting.
Photo 750808-3 gliding thru some minor ripples at end of first rapids.
Photo 750808-4 Fishermen above first set of rapids just below dam. Seep water from the reservoir can be seen issuing from native rocks on W side of dam. The amount of seepage is measured each day to determine rate of increase in seepage.

Left dam at 9:30 A.M after kids left. On east side of dam along main road photographed a displacement on west side of road cut. no 750808-5. From Little Hole Annette and I walked up E side of river. noted 3 sandpipers and usual birds. One young chipmunk (1/2 size) started to run across the trail and after 1/2 way across came to our feet for protection as if we represented trees. Continued up river and at a point approx 3 1/2 miles from Little Hole met the raft and rode it on the remainder of the trip. Jay & I did not have any trouble catching 13 nice trout, each one solid and fat and cold. Ran several rapids 2 or 3 times. Arrived Little Hole and returned to Dutch John to return raft, thence to dam and after visiting dam & its generators returned to Red Springs Camp. Noted 2 western grebes on lake.

Aug 9, 1975

Min. temp last night 38°F. Chris and Jay organized to depart to the N, Jay to leave Chris at Green River where he will return to Lawrence while Polly, Annette and I will return to Lawrence, Chris to Seattle. Left 9:10 A.M. at 5344.0. At 5360.5 noted a golden eagle. 5370 sparrow hawk. 5374 Vernal. 5407 Dinosaur, Colorado. 5416 good prairie dog towns. 5419 stripped skunk in oil drilling area. 5467 sparrow hawk at Smith Dulch. 5476 redtail. 5486 Slopes of short shrubs and completely covering surface. 5551.5 Rifle at 2:45. Temp 92°F. Continued to Avon, Colorado.

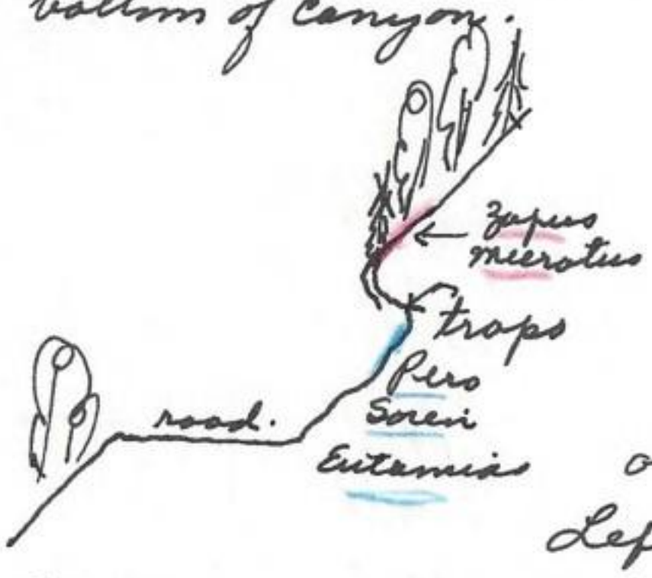
Avon, elev. Eagle Co., Colorado.

Aug. 10, 1975

From 50 traps along roadway thru aspen, fir etc:

750810-1	Sorex	123-49-14-7-9 gms. testis 5 mm
750810-2	Zapus princeps	215-132-32-13-17 gms. ♀ ut normal
750810-3	Microtus	155-56-20-12-23 gms ♂ testes 9 mm
750810-4	Peromyscus maniculatus	163-71-20-18-22 gms ♂ 3x3 plac. scars
750810-5	" "	165-72-21-18-23 gms ♂ testis 10 mm
750810-6	"	166-72-21-18-22 gms ♂ testis 10 mm
750810 7	"	168-80-21-18-20 gms ♂ testis 9 mm
SKI 750810-8	Eutamias minimus.	196-88-31-16-37 gms. ♂ testes 4 mm

These traps were set on N exposure along an old road that traversed the hillside. This road leads an underpass of the main highway in bottom of canyon.



The area above & below in good deciduous-coniferous forests, a canal below road, while the trap sites were on dry erosional slope of road, mainly under overhang created by road building. The zapus and microtus were taken above the ledge of overhang. This camp was at mileage 5599.

Left area at 12:50 P.M. At Vail made photograph 750810-9 of creek that flows thru village. Stayed Ford in Vail for the weekend. Continued to Tenderfoot Camp east of Keystone at mileage 5648. Set 100 traps 9½ miles E of here at a point just below Loveland Pass, all above timberline and on the W side of the valley W of the road. Traps set in some trails in short grass, mosses or lichens among boulders, along edge of drainages, now dry, around edge of lake among sedges, among short willows bordering damp areas and among krumholz. Returned to Tenderfoot Camp just east (bordering) of new Keystone Complex.

5/10 mi. S, 2/10 mi. W Loveland Pass, 11800 ft., Summit Co., Colorado.

Aug 11, 1975

Min. temp at Keystone 37°F. Left for trapline 7:30 A.M at mileage 5667.1

From the trapline at Loveland Pass (above) collected:

750811-1	Phenacomys intermedius	[135]-[18]-18-12-49 gms ♀ 3x4 emb 28 mm 18 gms (all)
750811-2	Zapus princeps	236-142-32-15-28 gms ♀ ut. normal, lactating.
750811-3	Microtus	152-52-19-12-22 gms ♀ ut enlarged
750811-4	Sorex	109-42-14-7-4.5 gms ♂ testes 5 mm
750811-5	Sorex	110-43-13-7-5 gms ♀ ut normal
SK. only 750811-6	Sorex	109-43-13-7-5 gms ♀ ut. normal

after collecting mammals from traps set last night, set same number in a climax spruce forest and willows below Loveland Pass on E side of valley. and then returned to Keystone Camp (Tenderfoot). At camp prepared the mammals captured at Loveland Pass and 3 Citellus lateralis captured at camp. The following are from: Keystone, ____ elev., Summit Co., Colorado and measured:

750811-7	Citellus lateralis	258-94-44-18-163 gms ♀ ut. normal
750811-8	" "	259-91-41-17-154 gms ♀ ut. normal
SK. only 750811-9	" "	255-89-40-16-149 gms ♀ ut. normal.

These Citellus were the common mammal in the Tenderfoot Camp.

This evening checked the 50 traps in spruce forest below Loveland Pass at 3/4 mi. S 3/4 mi. E Loveland Pass, 11,100 ft, Summit Co., Colorado. The traps were set at 10:30 A.M this A.M and were being checked the same day at 6:00 P.M. From the spruce forest collected: (50 traps)

750811-10	Eutamias	[167]-[57]-31-15-50 gms ♀ lactating; ut normal but
750811-11	"	206-92-32-15-46 gms ♂
750811-12	"	175-78-31-14-26 gms ♂ testes 3 mm

From willows and from damp to wet soils nearing running water: (50 traps)

750811-13	Microtus	158-48-21-11-30 gms ♂ testes 11 mm
750811-14	"	174-58-20-12-40 gms ♂ testes 14 mm
750811-15	Sorex	111-41-12-7-3.5 gms ♀ ut. normal
750811-16	"	102-43-12-8-5 gms ♀ ut. normal
750811-17	"	109-44-13-8-5.5 gms ♂ testes 3 mm
750811-18	Eutamias	191-89-31-15-37 gms ♂ testis 6 mm
750811-19	"	200-94-32-16-43 gms ♂ testes 5 mm

From the traps in the climax forest also collected 1 Canada jay 11½" long, 1 gray-headed junco, 2 thrushes. A redtail sat in a tree up canyon from here at a point just below timberland.

Returned to camp at Tenderfoot Camp.

3/4 mi. S, ~~and~~ 3/4 mi E Loveland Pass, 11,100 ft., Summit Co., Colorado.

Aug. 12, 1975

Returned to this trapping site early this A.M and collected the following mammals from the spruce forest (traps set yesterday morning and already check once yesterday evening:

750812-1	Sorex	107-41-12.5-7-7.5 gms ♀ lactating, mamm large
750812-2	Clethrionomys gapperi.	132-39-19-12-19 gms ♂ testes 10 mm.

From willows along running water in valley at basemt.:

750812-3	Zapus princeps	222-128-31-13-25 gms ♂ testes 3 mm
750812-4	Sorex	112-45-14-7-5.5 gms ♂

Prepared the above following and prepared to leave camp for Boulder. Met Thomas Evans who had been checking extension of skiing runs for Keystone, He reports a large herd of elk in the immediate area.

Left Tenderfoot Camp at mileage 5732 at 10:50 A.M. Returned to Dillon thence up thru Eisenhower tunnel under Loveland Pass, thence to Denver and then to Boulder where we left Polly who was to join a geologist friend in the Spanish Peaks area. Continued to Limon, Colorado where we stayed for the night arriving at 10:00 P.M.

Limon, Colorado

Aug. 13, 1975

Left 7:30 A.M at mileage 5939. Nighthawks flying in fog. Return by I. 70. 6025 badger roadkill. 6026.6 Kansas State Line. 6180 redtail hawk. Rain all the way across Kansas. Arrived Lawrence 9:50 P.M at approx 6396 mileage. or 3,451 miles all told.

List of birds according to first observed.

robin (Kansas)
Eng. sparrow
grackle
starling
red-headed woodpecker
barn swallow
brown thrasher
Crow
meadowlark, eastern
dickcissel
house wren
redwing
cowbird
killdeer
western kingbird
redtail
mourning dove
meadowlark, western?
ruby throated hummingbird
nighthawk
green heron
eastern kingbird
shrike
bluejay
pheasant
ducks
horned lark
Cooper hawk
lark bunting
Swanson hawk (Colo border)
sparrow hawk
Indigo bunting
Stellers jay
spotted sandpipers
arctic three toed woodpecker
Canada jay
grey headed junco
white-crowned sparrow
rosen
warbler
thrush
western flycatcher
mountain bluebird
magpie.
veery
turkey vulture
snowy egret (Wyoming)
mallard
pintail
marsh hawk
Calif. gull.
red-shafted flicker
Clark's crow
rock mt pine grosbeak
pine siskin
white-crowned sparrow
Sprague pipit
lancastiete
golden eagle
wilson snipe
long-billed marsh wren
Coot
pied-billed grebe
yellow headed blackbird
lesser yellowlegs
eared grebe
sage thrasher
sage hen
sage sparrow
chipping sparrow
Franklin gull
avocet (Utah)
black-necked stilt
Canada goose
W.F. glossy ibis
Forster tern
black-crowned nitheron
western grebe
great blue heron
least sandpiper
western sandpiper
~~long-billed dowitcher~~
black tern
ruddy duck
godwit
cinnamon teal
long-billed curlew

total 86 species

Univ. Kansas, Helen Foresman Spencer Museum of Art, Lawrence, Douglas Co., Kansas

Aug 18, 1975

Photo 750818-1 of progress on museum. First walls up and forms not all removed. Photo in A.M. Photo 750818-2 to show color change of trees.

Sept 11, 1975

Photo 750911-1 of above art museum at 5:00 P.M.

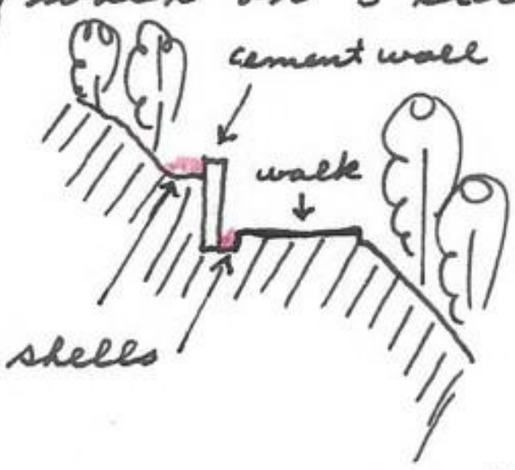
Sept 12, 1975

Photo 750912-1 of above art museum taken at 10:00 A.M showing pouring of floor. Photo 750912-2 color changes over stadium. Photo 750912-3 at 2:00 P.M finishing surface of floor with electric trowling.

Univ. Kansas, Lawrence, Douglas Co., Kansas

Sept. 13, 1975

noted shells of gastropod Anguispira a. alternata along side of walk on E side of Mississippi Street S of 12th Street for approx 200'.



The shells had accumulated at base of cement wall in an area of 10" between the wall and the sidewalk and in the depressional area between the upper hill slope & the top of the cement wall. I can account for the accumulation of shells at the top of the wall from gravity downslope but it is more difficult to explain the presence of the shells at base of wall. They have been seen (live) on face of wall and on walk after rains. They may be forced to the side of the walk after rains and cement becomes too hot for escape. I would estimate 400 per sq. foot in the most concentrated areas.

Univ. Kansas, Lawrence, Douglas Co., Kansas

Sept. 15, 1975

Autumn colors just starting with greens now lighter greens and some yellows. Reds rare and local trees only.

Helen Foresman Spencer Museum of Art, Univ. Kansas, Douglas Co., Kansas.

Sept. 16, 1975

750916-1 museum with supports ready to receive metal receiving forms. Photo in P.M

Helen Foresman Spencer Art Museum, Univ. Kansas, Lawrence, Kansas

Sept. 17, 1975

Photo 750917-1 of museum with 1/3 metal ceiling forms (end elements) in position.

~~Photo 750917-2 of color of tree beyond stadium~~

402 Yorkshire, Lawrence, Douglas Co., Kansas

Sept 24, 1975

Ordered Provo Bay aerial photo from Eros Data Center. Specs. Project GSCV, roll 3, first frame 11, product code 24, no frames 1, no copies 1, $8.00

Helen Foresman Spencer museum of art, Univ. Kansas, Lawrence, Douglas Co., Kansas

Sept 26, 1975

Photo 750926-1 of Art museum showing S end of first floor ceiling with 1/2 metal depression ceiling forms and reinforced with the N end in several stages of construction preparatory to receiving the metal ceiling forms.

Photo 750926-2 of aspection study of trees to N over stadium. Some trees show indications of yellows. As in all other cases these photographs were taken from the 7th floor of the museum of Natural History.

402 Yorkshire, Lawrence, Douglas Co., Kansas

Sept 27, 1975

A ruby-throated hummingbird flew into window at home but was able to fly away although in a lopsided flight. Time 11:45 A.M.

Helen Foreman Spencer Museum of Art, Univ. Kansas, Lawrence, Kansas

Sept 29, 1975

Photo 750929-1 of floor of second story poured (S end).

Oct 1, 1975

Photo 751001-1 of Art museum with S end of ~~second~~ ~~first~~ floor, poured, middle ~~second~~ ~~north~~ ~~runway metal form~~ end in various stages of construction to receive metal recess ceiling forms.

Photo 751001-2 of tree beyond stadium. more yellows now.

Lawrence, Douglas Co., Kansas

Oct. 2. 1975

Counted grackles, starling and maybe redwings flying WSW over Centennial Park. First linear flock lasted 5 minutes and consisted of 150,000; second flock five minutes long of 150,000 birds or a total of 300,000 birds. Time approx 6:30 P.M.

Perry Reservoir, Jefferson Co. Kansas

Oct. 5, 1975

Annette and I visited Mr. Byron Walter's property E of Lakeside Village. Left home at 12:45 at mileage 7373.1 Followed the river road to Lecompton. Photo 751005-1 of autumn color of deciduous forests approx 1/2 mi S of Lake Vieu, Douglas Co. showing maximum colors. These colors in native forests are more advanced

than colors of trees in the City and residential areas of Lawrence. The trees (cottonwoods and willows along the Kaw River) are green with only a slight yellow color and are in contrast to the hillside colors. Photos 751005-2, 751005-3 and 751005-4 are of valley hillside (N side of Kaw Valley) showing color in trees. These photos are NNE of Perry Highschool area. Continued N to Dr. Byron Walters property and gained entrance via E side up drainage to base of the dam of his lake. At dam observed three trails used by beaver between the lake and S side of dam. The outlet on south side of dam was being used by beaver and this would be a good place to place live traps. Continued W around lake noting 3 habitation sites and dozens of trees girdled. At the vantage point met Dr. Walters who was setting and cementing poles for the gazebo. We finished cementing the last 3 poles. He has owned this property & lake for approx 12 years and had built the lake. He believes beaver girdle the large oaks for purpose of controlling tooth growth. A few days ago a hunter shot a pileated woodpecker and left it in the area of the gazebo. Dr Walter judged the wingspread to be about 2 feet. Because of many dead trees around the lake, caused by elevated water or beavers, there are many red-headed woodpeckers. no ducks on the lake at this time. Photo 751005-5

Helen Foresman Spencer Museum of Art, Univ. Kansas, Lawrence, Douglas Co., Kansas.

Oct 9, 1975

Photo 751009-1 pouring cement for second floor elevators and partial walls. Photos 751009-2 and 751009-3 of color in trees beyond stadium.

NW Clinton, Douglas Co., Kansas

Oct 9, 1975

Inspected Wakarusa below rapids in area previously investigated. Kent Siddings and John Spooner accompanied me. The most noticeable thing was the few unios compared to initial condition of many unionids in river when first examined (see previous research in area) I would estimate there are only 5% new shells since this area was first collected and at that time all shells were collected. Measurements of the live shells collect are: Leptodea fragilis 130 x 95 x 40; 150 x 108 x 44. Quadrula quadrula 72 x 57 x 37, 108 x 78 x 50, 76 x 60 x 34. Leptodea laevissima 140 x 94 x 48. Quadrula pustulosa 77 x 67 x 40, 65 x 58 x 35, 72 x 64 x 37. Live shells in aquarium are 2 Quadrula quadrula, 2 Quadrula pustulosa & 1 Legumia anadontoides and 1 Legumia laevissima. Photo 751009-4 of John and Kent in river below the rapids showing heighth of water at this time of year. 4:30 P.M.

* 751010-1
751010-2
751010-3
751010-4
751010-5
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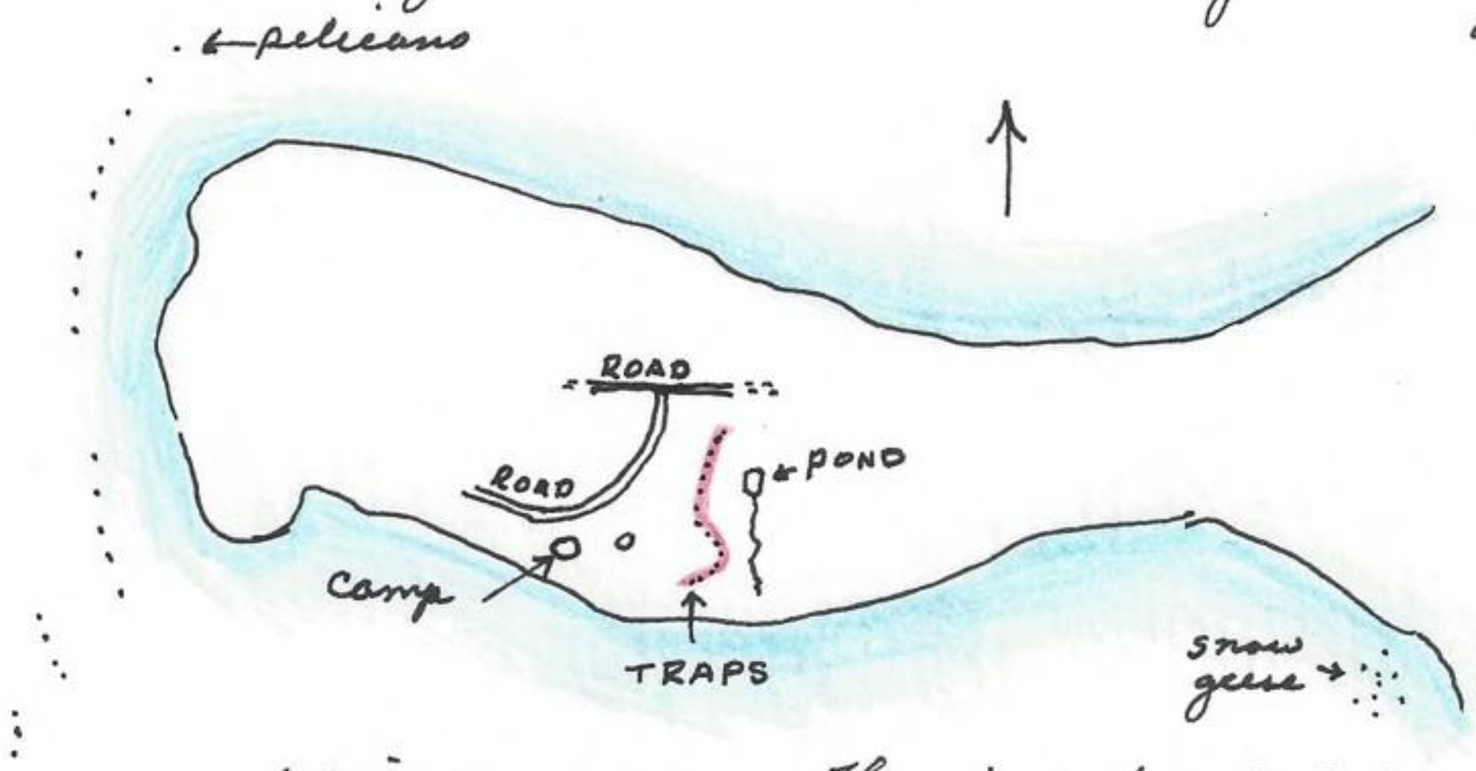
751010-16

751010-113

Paradise Point, Perry Reservoir, Jefferson Co., Kansas
Oct. 10, 1975

Took class Paradise Point to study animal & plant communities and to trap small mammals and on the following day to investigate the beaver population on Dr. Byron Walter's property. Included on the trip were Dan Spencer, Nancy Zuschlag, John Thoburn, James O'Neill, Chen-wen Young, Chris Whitaker, Ron Case and Dr. Lerner. Left 1:30 P.M and enroute visited the dam, marina and a quick reconnaissance of the Walter property. At Paradise Point set up one 5 man tent plus the trailer in E campsite. Approx. 200 snow & blue geese in bay to E, 11 cormorant, 8 coot and an occasional ring-billed gull in area as well as bluejays, red-bellied woodpeckers, slate-colored juncos. In the evening set 50 traps in field east of camp, at contact between the cut fields and the vegetation now allowed to grow among young trees that have invaded the grasslands. Only 2 old trails of muskrats were observed along the trap route in comparison of hundreds in the same area in previous years. There is a decided low in the population. Largest deer track in area 80 mm. Collected the following insects along & near trapline (see opposite p.) K

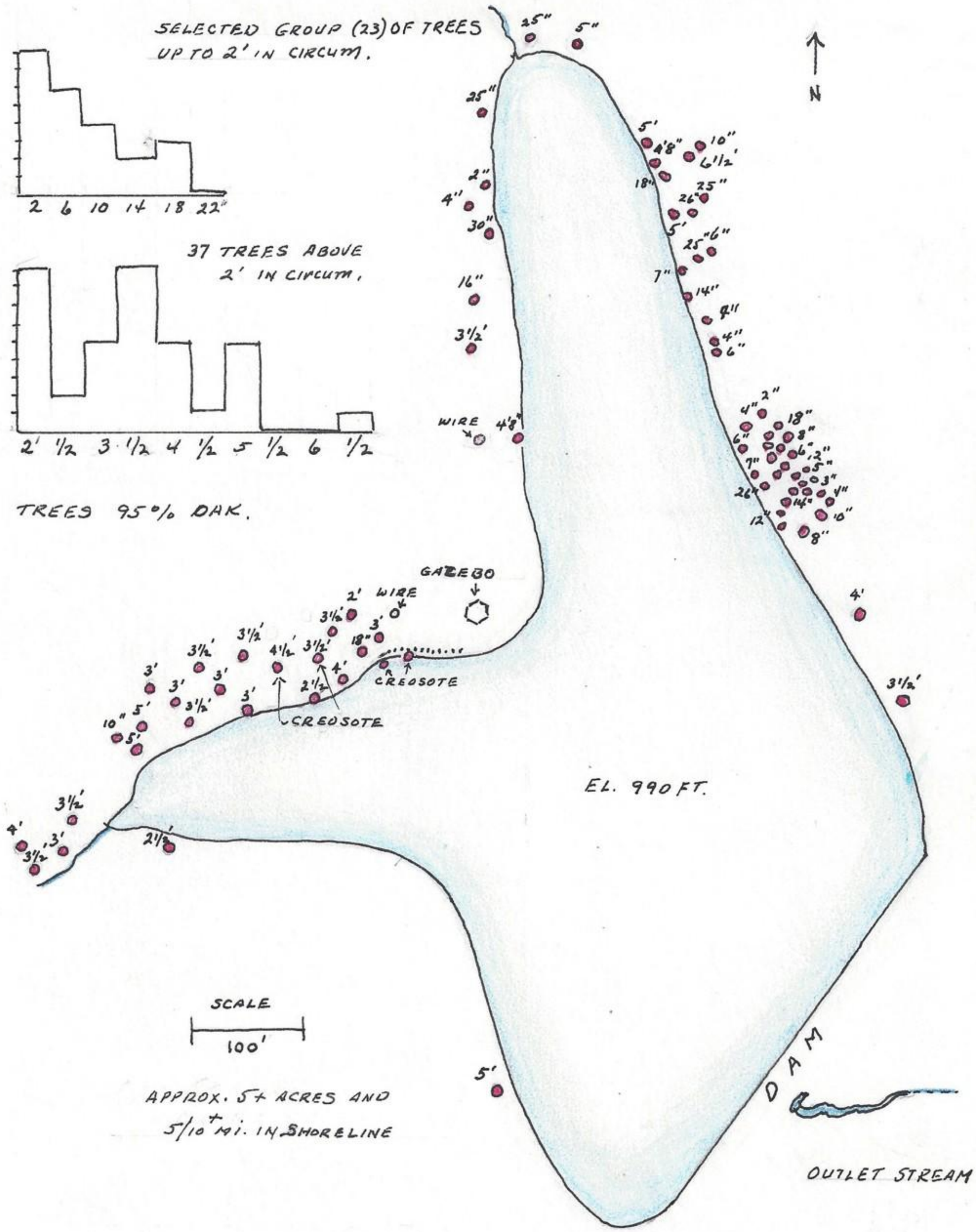


Paradise Point, Perry Reservoir, Jefferson Co., Kansas
Oct 11, 1975

min temp last night 52°F. Weather perfect and practically no wind. From trap line set last night collected:

751011-1 Crytotis parva
751011-2 Sigmodon hispidus 215-75-28-14-58 gms ♀ ut. normal.

Left camp 9:00 A.M. At W end of Paradise Point we observed 1830 American pelicans. They were near the west side of lake from the NW bay to the mouth of French Creek. 13 Cormorants generally distributed. 2 great blue herons in area and a horned owl called this morning. The harassment of pelicans by boats point out the fact that these birds need protection at this time of year. Continued to Walter's lake. At a point just before dropping down uplands captured a glass snake (Ophiosaurus attenuatus attenuatus) that measured 670 mm total length. A dead one was found in same roadway 100' beyond. This road (center in grasses) was bordered by deciduous forests.



TREES UTILIZED BY BEAVER, (OCT. 11, 1975)

BYRON WALTERS' PROPERTY (SW SEC. 16, R18E, T10S), E OF LAKESIDE VILLAGE, SLOUGH CR. DRAINAGE, JEFFERSON CO., KANSAS.

The group surveyed the tree damage around lake. The western part from the gazebo did not include small trees whereas the area east beyond the observation stand included small trees. Recommendation is to reduce beaver population, place screen around large trees and creosote smaller trees. There will always be need for control of numbers ~~and~~ beaver by live trapping and transporting them to other areas. This lake is only 1/2 mile from the Perry Reservoir and beaver will always be invading the lake from the reservoir site.

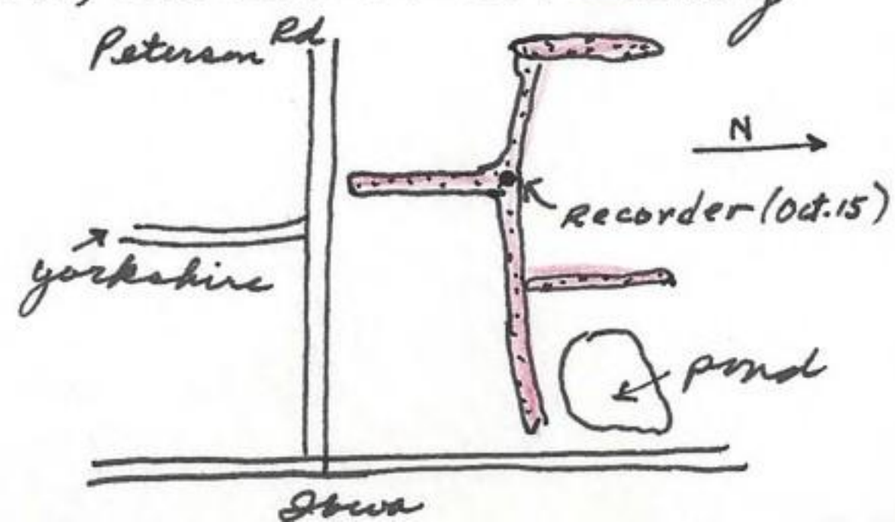
At the Walter's Lake took the following photographs

751011-3 tree (oak) protected with wire.
751011-4 tree girdled of bark but wood not eaten by beaver.
751011-5 willow creosoted
NG. 751011-6 " "
751011-7 repaired beaver hole
751011-8. oak ~~wrapped~~ with wire. creosote
751011-9 oak cut 1/2. creosote on N side.

It was suggested that pheromones of other beaver be placed near areas inhabited by beaver to discourage the beaver but such scents may produce the opposite effect and encourage others to form colonies in the area. Noise, lights were considered ineffectual. The best time to trap beaver (for hides) is in January and February. The running water below the dam would be the best place to live trap beaver as this area is used frequently by these animals. They could be transported by boat across the lake to the car or carried down stream to road between the dam and Perry Reservoir (Slough Creek). Beaver very seldom inhabit farm ponds but prefer running water. (see June 3, 1977 for size of beaver from Walter's Pond.)

402 Yorkshire, Lawrence, Douglas Co., Kansas
Oct. 12, 1975

High wind (first this autumn) blew dead needles of white pine to ground to form a mat of dead leaves and the first occurrence of this sort of thing this autumn (This area is K.U. campus, not 402 Yorkshire) Many of the yellow leaves of trees were also removed creating a green effect in the autumn trees. Between 6:40 P.M and 7:00 P.M grackles, starling and robins (95%, 4%, 1%) entered their roosting areas in trees. Grackles enter higher than starling and robin at a low just above ground approach. Starling glide into area then drop abruptly into the trees. They (Oct) call until late twighlight.



Lawrence, Douglas Co., Kansas
Oct 13, 1975

Temp at 11:30 PM = 72°F. Season has been characterized by high temps.

Walters Lake, Jefferson Co., Kansas
Oct. 14, 1975

mileage from home to lake 20.8 miles (entrance to property) and travel time 1/2 hour.

W of Peterson-Yorkshire Roads, Lawrence, Douglas Co. Kansas
Oct 15, 1975

Placed recorder in tree 4 feet high from ground between 6:45 to 7:45 P.M in area (see Oct. 12). There is continuous loud sound that gradually decreases toward twilight or about 6:20 P.M. Occasionally the sound will decrease for a fraction of a second then attain regular intensity. Leafless trees among green trees best areas, isolated trees in field not used.

402 Yorkshire, Lawrence, Douglas Co., Kansas
Oct 15, 1975

Celebrated 30th anniversary and Annettes birthday (14th) tonight. Took the following photographs:

75 1015-1 diamond shape cake baked by Polly
75 1015-2 " " " " " "
75 1015-3 James Robert Bee
75 1015-4 Mary Pauline Bee
75 1015-5 Annette P. Bee
75 1015-6 James W Bee
75 1015-7 Amy Dailey
75 1015-8 Judy Dailey
75 1015-9 Lisa Dailey

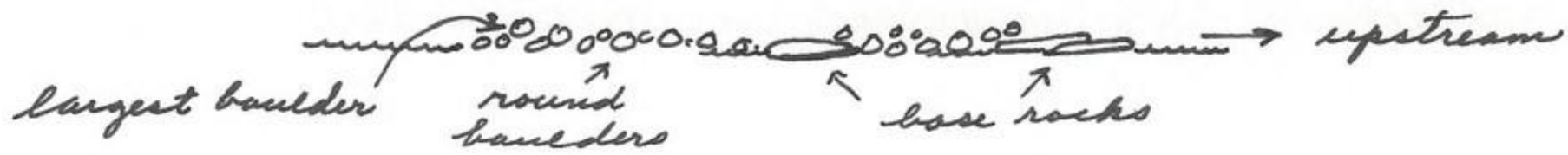
Helen Foreman Spencer Museum of Art, Univ. Kansas, Lawrence, Douglas Co. Ka.
Oct 16, 1975

Photo 751016-1 Spencer museum Art under construction. 2nd floor 2/3 poured. Photo 751016-2 of color changes in trees beyond stadium. Yellows decreased and greens dominant. Some red just beginning.

Kaw River SW Fall Leaf, Leavenworth Co., Kansas
Oct 16, 1975

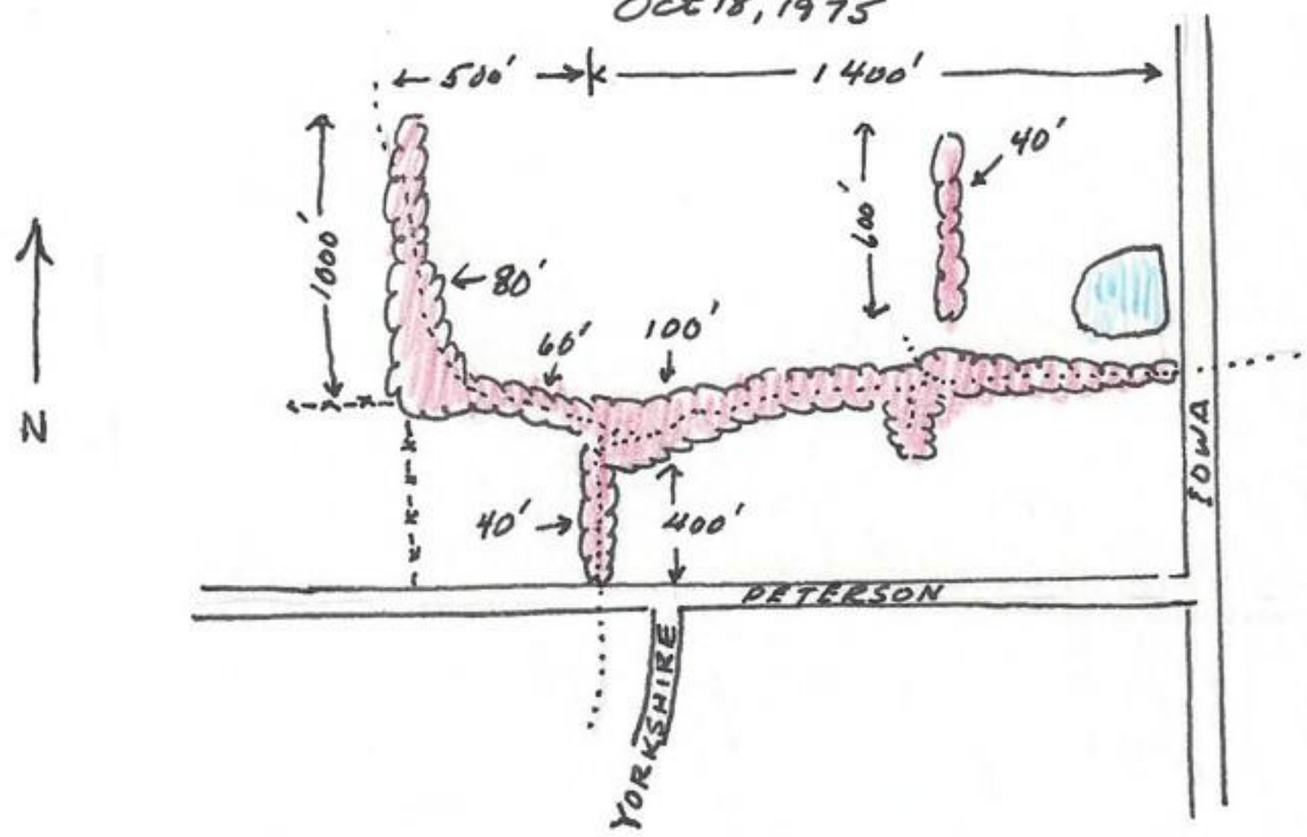
Examined boulders in floor of Kaw River (see previous notes for exact location). One boulder approx 2'x2'x2'. Although high sand bank has been eroded, rocks still go under sands. Out crops of

rocks now exposed and general arrangement is thus:



2 great blue heron, 8 killdeer and 1 great horned owl in area.

SE Sec 23, R18E, T12S, Lawrence, Douglas Co., Kansas
Oct 18, 1975



29,000,000 sq feet of tree area × 8 feet heighth occupied by birds = 2,323,000 possible positions in trees. Actually 60% of area was occupied and average concentration about 50% or 278,760 birds. Some trees probably 1 per sq. foot.

In areas of concentration, especially under trees without leaves but protected on all sides by other leafed trees, the fecal white-wash was 90% coverage, some ground leaves (poison ivy) the standing leaves were 100 covered. This coverage varied according to size of tree, large cottonwood for instance did not have white fecal material beneath the tree. Lower limbs covered with white in some areas. On the basis of recollection these birds have been inhabiting these trees for the last 12 days. About 3/4 hr before sunrise the birds are already calling and leaving the roosting area in about the same degree of departure as their arrival in the evening. Most of the birds have left the roost before sunrise. This evening noted two groups of grackles converge in flight at 60 degrees.  They formed a solid group for approx 4 seconds and then divided and continued on their original flight direction. There was a second of confusion at the moment of contact. In otherwords one group did not attempt to evade the other group by predetermined decision.

Lone Star Lake, Douglas Co., Kansas
Oct. 19, 1975

Annette and I circumnavigated Lone Star Lake, keeping close to shore Left at outlet at 12:30 P.M, upper end SW bay 1:25, upper end S bay 1:55, Boat house 2:25, upper end E bay 2:35, return to outlet overflow 3:00 or 2 1/2 hours. Wind from SW.

Only 2 coot on lake and these at N end of dam. There were no other ducks on the lake. In the SW arm of lake there is considerably more home building and with the new emphasis of boating the new dock shelters are obscuring the shoreline and the area is rapidly loosing its beauty as a lake. years ago one would see an occasional canoe but today nearly everyone has one parked near the lake. The S arm of lake is low and shallow. On return to N did not investigate the two bays on east side of lake. At 2:00 P.M. 36 Franklin and 1 ring-billed gulls fed and circled the area of the two coots at the north end of the dam. They finally congregated and gained elevation by both clockwise and counterclockwise movements and finally moved to the SW. The birds on shore were few and included 15 bluejays in singles, pairs and groups of 3. They were trending mainly SE. Heard 6 red-bellied woodpeckers and 4 redheaded woodpeckers. Insects called. Approx 30 turtles (largest 8 inches) were observed on logs in water, generally singles or 3 or 4 in groups. Dragged a fly behind canoe at about 40' from shore and caught only 8 sun bluegills. The battery lasted 3 hours before signs of weakening. At low speed one can just move into wind. Color in trees over first stage of color.

Left lake and travelled new road (Corp of Engineers) on S side Clinton reservoir area. Turned N on road leading into Clinton from the SW and thence N across valley. On N side checked old farm house near Coon Creek bridge. This area has definitely been raised by individuals, selecting whatever is needed. If after the final selection is made and the unusable wood is left it should be cut into firewood and sold at a reasonable price to compensate for labor. The old fence of rock have been pushed over and most of the rocks salvaged. This is one case where a well organized home and farm has been abandoned because of displacement by reservoir water. On return to Lawrence noted 3 redtail hawks and the usual country birds.

Helen Foresman Spencer Museum of Art, Univ. Kansas, Lawrence, Kansas
Oct 21, 1975

Photo 751021-1 of museum with all the second floor poured into cement. The second ceiling which will become the 3rd floor is being constructed in the S end of the building.
Photo 751021-2 of color in trees beyond the stadium.

19

751026-119

Lawrence, Douglas Co., Kansas

Oct. 26, 1975

Took the following photographs of Unionids from Wakarusa River.

751026-1

751026-2

751026-3

751026-4

751026-5

751026-6

751026-7

751026-8

751026-9

751026-10

751026-11

751026-12

751026-13

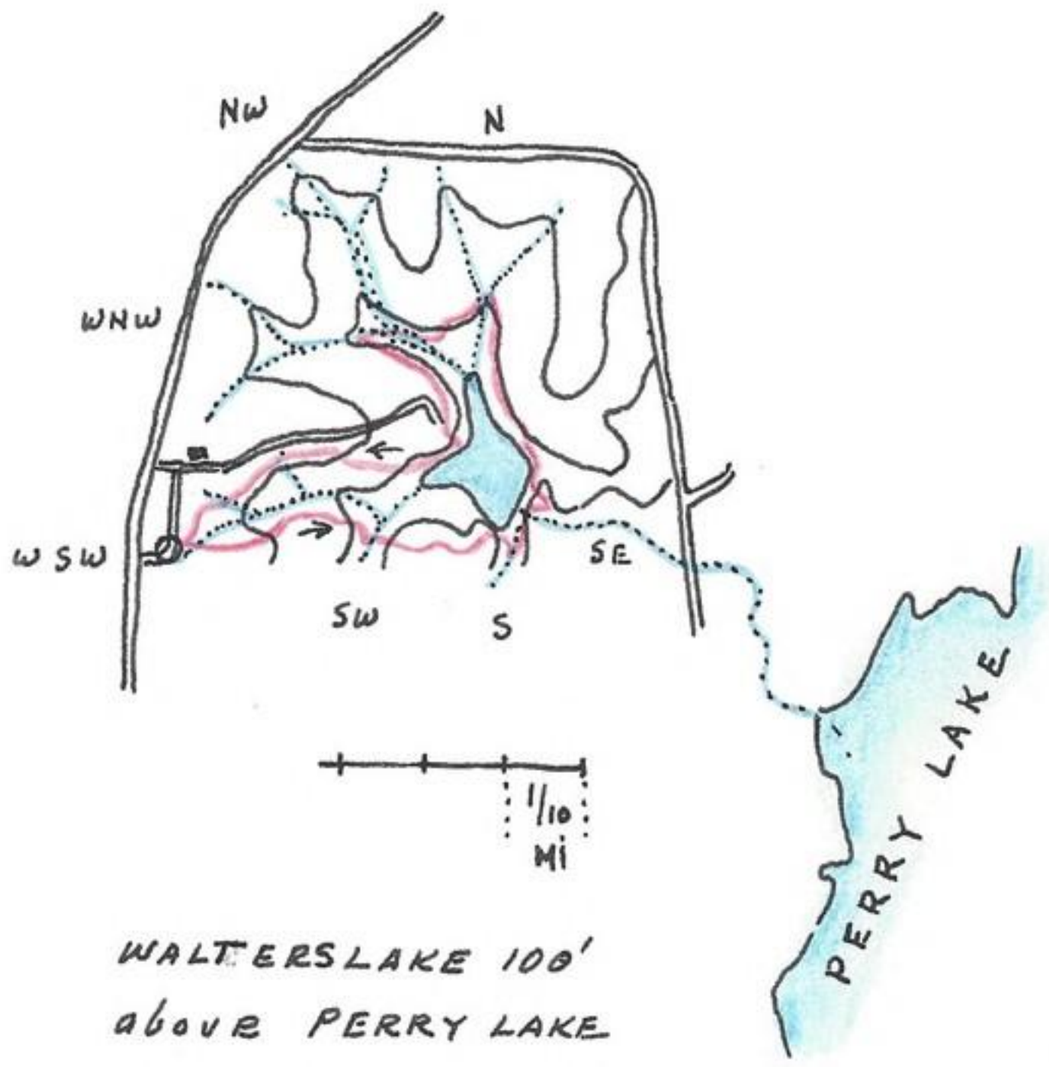
751027-120

Perry Reservoir, Jefferson Co., Kansas
Oct 27 1975

Left 9:25, 8017.1, day partly sunny, low clouds, cold, wind 15 miles p h from S. ~~when~~ went on daylight savings time. Grackles still using roosting area NW of home even though leaves are about 50% gone. Noisy in morning and left about 6:20 A.M after daybreak and nearer sunup. Will keep complete record. 19.8 yellowshafted. 20.3 Lake View Causeway. water separated by dry land just E of causeway. 5 wilson snipe and 14 killdeer in area. Snipe probing to full extent of bill and remaining in same general area while killdeer constantly moving. Bluejay flew across lake from W to E. Lotus stems to 3 feet high and on dry land. Leaves off stems. 1 robin in area. Forests by lake are in good reds, greens, yellows, maroons. 21.9 robin, great blue heron at W end of ox bow. Cottonwood & willows along Kaw River ~~is~~ from good summer greens to bright yellows and leaves in 50% of trees are ~~50~~ 30% shed and generally missing in trees. Larger cottonwood less effected than younger trees. 23.2 shrike. 23.8 begining hillside road at creek bridge. Bluejay. 24.9 bluejay. 25.1 4 bluejays, 1 downy. 26.2 3 bluejays & 1 flicker. 26.8 Lecompton highway. 27.5 Lecompton bridge River low. Tree N E Perry Highschool on valley slope that were brilliant a week ago are now a greenish-yellow of faded color as if frost bitten. Wind has blown colored leaves off trees and older green leaves and begining to change. 30.4 Delaware River W Perry. Oxbow to right dry and grown to weeds. 31.8 29 Franklin gull and 1 ring-billed gull circling at about 250' and trending toward Perry dam to N. 32.2 redtail. 32.3 highway 24. 2 meadowlarks. 33.6 Thompsonville. and continuing E to outlet. 2 meadowlarks. drove to outlet of drainage canal from dam where it enters the Delaware River. This drainage has supported beaver as evidenced by several dams that are now broken thru. Water flows in a narrow stream. A black crown night heron left the stream. At upper end of ditch beyond the willows and near the main road are good used runways of microtines and best I have seen this summer or autumn. The water flows thoughout the year and their presence suggests that water has been a necessity this summer for microtines. 35.1 back to Thompsonville. 36.1 sparrow hawk. 36.5 now to N into reservoir area. 37.1 28 bluejays in one flock. 37.3 Overlook. Between the west end of dam and outlet gate are groups of coot both on edge of lake and in the water

adjoining the dam. I would estimate 1600 all told. They fed as far into dam as soils were moist. In one group of ducks (1 of 4 in area) were 14 ruddy ducks, 1 eared grebe, 2 pied bill grebe, 28 lesser scaup 2 greater scaup?, 12 gadwalls and 2 pintails. Another group 2/10 mis out into lake are 28 redheads, 32 lesser scaup, 2 pintails, 8 ruddy ducks and 2 franklin gulls. Another group 36 gadwalls, 17 redheads, ~~and~~ 2 pintails and 40 scaup. A ~~fourth~~ fourth group contained 16 gadwalls and 6 ruddy ducks. Left Overlook at 11:10. 2 cormorants at w end dam. 5 bluejay, redbellied + redhead. 37.6 back to main road. 5 bluejays. 37.9 w end dam and now N. 38.0 90 foot near shore. 38.3 redbellied woodpecker, 2 bluejays. 38.7 main road. 39.0 2 meadowlarks. From NE of peninsula observed 1500 coot along lee side (N) near shore, 13 Bonaparte gulls, 2 ring bills, 1 redthroated loon, 1 pied billed grebe, 1 cormorant, 8 redheads (ducks). The Bonaparte gulls are hunting along edge of lake (40' out from shore) on east side of peninsula and are picking up fish approx 2½-3 inches in length. They feed into wind and then fly out around lakeward to search the same area again. Left at 39.6 ~~and returned to main road~~ at 11:45. No white caps but wind seems strong and keeps birds in protected coves. 40.2 off peninsula and at main road. 40.3 2 bluejays. 40.7 2 meadowlarks, ring-billed gull. 41.4 head of bay and now returning. 4 meadowlarks. 900 foot on other side of bay beyond point to NW., 2 ring bill gulls. Will not record birds on return to dam. 43.9 w end dam. Water level 888 ft. and water separates outlet from dam by 2 inches. 45.2 redtail almost motionless in area rear top of S side dam, maintaining position for 2 minutes 800 coot between outlet + east end dam. 45.4 Headquarters. Checked marina. 48.0 beginning Ferguson Rd. 49.1 bredge Big Slough Arm. 49.6 redtail. 14 starling. 51.7 Lakeside Village entrance. 53.1 redhead woodpecker. 55.0 Little Slough Cr. Bredge, creek intermittent. 55.7 now w to Ozawkie. 57.5 Ozawkie bredge. 8 individual ring-bill gulls in area. to S of bridge. 59.7 Old Pawn Park. (NW end). Waves 1 foot high but no white caps. 5 Cormorant, 2 coot, 2 ring-bill gulls, 2 pied bill grebes. No ducks or other birds. 61.1 1000 grackles and starlings in one flock. 61.2 now S on Ferguson Road. 62.8 top of hill. 2 bluebirds. 65.3 Lakeside Village entrance. 3 crows to E. 65.5 turnoff at S end Watler's property on old county road. Left 1:15 to check Watlers Lake by foot. Will follow drainage to E, thence over dam and circumnavigate the hillsides surrounding the lake in counterclockwise direction.

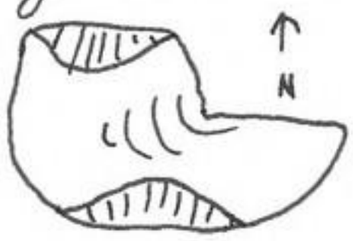
made census of birds and mammals on walkers property beginning at old county road at SW corner of area at 1:00 P.M. Just inside of trees and head of drainage measured a glacial erratic at 34 inches. Between here and SW drainage observed 1 gray squirrel which behaved as though it had been hunted frequently and 2 redhead woodpeckers. There is a good forest of oaks in the bottom of the canyons with leaves now in full reddish-yellowish green color. On uplands the oaks are small because of moisture and soil conditions. Arrived SW drainage 1:30 P.M and followed it up to fence-line, thence E up slope. The walker property ~~is~~ has a more mature tree than property to S of fence-line. In this area noted 2 bluejays and 3 redheaded woodpeckers. Continued to vantage point above W end of dam where most of the lake can be seen. There is a decided increase in numbers of redhead woodpeckers associated



WALTERSLAKE 100' above PERRY LAKE

with the lake and in the immediate part of lake below counted 14. plus one yellow shafted flicker. 8 bluejays flew singlely across lake from W to E near dam in 10 minutes. Dropped down to dam ~~at~~ and at culvert outlet noted a cottonwood tree 5 inches in diameter cut down by beaver but tree not touched ~~otherwise~~ other. Water in erosional pond at culvert and down stream for approx. 100 ft then it disappear for 50' to reappear beyond for indeterminate distance. The water is clear but full of autumn leaves and a greenish algae as if not frequently or at least recently used by beaver. The pond had been partially blocked with soil and grasses, placed there by the beaver. No tracks of beaver in mud but good trails up over dam and these trails have been recently used. The area below the dam could be developed into an excellent run for beaver and other thick brush community for birds and other mammals. If a constant but slow stream of water were released, beavers would utilize the area for dam building and pond formation. Birds in this area are: 13 goldfinch, 3 song sparrows, 16 slate-colored juncos, 3 redheaded

woodpeckers, 2 bluejays, 1 towhee, 4 cardinals, 2 titmice, 2 myrtle warblers and 1 yellow-shafted flicker. At about 1/2 way across dam a 4 inch cottonwood was cut and hauled up over the dam to the lake. Just beyond to E 2 more cottonwood trees 2 1/2 inches in diameter and 1 5" in diameter. These trees are carried directly up slope of dam to lake beyond. At E end of dam observed 2 slate-colored juncos, 2 cardinals, 4 redheaded woodpeckers, 1 yellow-shafted flicker. (2:25 P.M.) The E side of lake has considerable beaver cuttings of young and some older trees. About 1/2 way down east side of lake measured one oak that was 93 1/2 inches in circumference at ~~trunk~~ chest heighth. This is one of the largest oaks on this slope and is vulnerable to beaver depredation because of nearness to the water and a solid flat base surrounding the tree. Along this side of lake noted 6 redheaded woodpeckers, 3 bluejays, 1 redbellied woodpecker and 2 slate-colored juncos plus several Rana pipien frogs. Continued up drainage to convergence of 2 canyons. At this point observed a great horned owl, 4 redheaded woodpeckers and 5 bluejays. Moved across to NW drainage which is a double drainage to forks of NW + WNW forks. In this drainage (double) noted 6 bluejays, 6 redheaded woodpeckers, 1 gray squirrel. (Sciurus carolinensis). Traversed slope to steep grade of road, thence down to the gazebo (roof supports now completed). Beaver have cut many of the willow that have been trimmed, I presume, every year since they were planted) all except the 2 painted with creosote. In the W bay noted a kingfisher and 2 redheaded woodpeckers. One oak being cut by beaver 48' from water. A well used path to this tree. Another large oak cut (felled NE) but not be utilized. 2 trees painted with creosote note effected. Some oaks are first damaged by the beaver cutting all bark as high as the animal can reach, then at a later date the beaver fells the tree. Other trees are felled without the preliminary removal of bark from the entire surface. This bay is also popular for redheads having observed 6 of them. They use this lake because of the numerous dead trees surrounding the border of the lake. Supersaturated soils from the new lake and beaver depredation has caused these trees to die. They should not be removed. Left this bay and traversed slope to flat bench above, thence W toward car. (arriving 3:15 P.M.) One erratic measured 36" greatest width. Enroute observed 7 redheaded woodpeckers, 1 flicker and 2 bluejays. There is no evidence of pileolated woodpeckers in this drainage system around the lake although conditions appear favorable.



Birds and mammals observed

redheaded woodpeckers	57
yellow-shafted flickers	4
goldfinch	13
slate-colored juncos	20
song sparrows	3
towhee	1
bluejays	26
titmice	2
gray squirrel	2
cardinals	4
myrtle warblers	2
red-bellied woodpecker	1
leopard frogs	several (8)
great horned owl	1
belted kingfisher	1

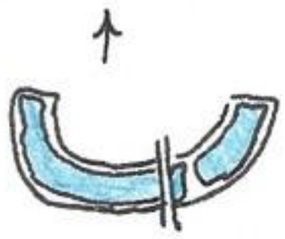
Continued S on Ferguson Road at 65.6 at 3:25 P.M. a triangular seed approx 1/4 inch all over pants. 67.9 Big Slough Creek bridge, 2 ring-billed gulls. 68.5 2 bluejays. 68.7 2 crows. 69.7 2 bluejays. 70.1 SE part of Perry Reservoir area at 3:35 P.M and end of census. Temp this afternoon about 68°F. Arrive home at mileage 085.2 at 4:15 P.M.

Lawrence, Douglas Co., Kansas
Oct. 1, 1975

NW of 402 yorkshire grackles + starling left at 6:30 A.M. Sunrise 7:00 A.M.

Perry Reservoir, Jefferson Co., Kansas
Nov. 2, 1975

Annette and I made trip to Perry Reservoir to check on birds. Left 9:40 A.M at mileage 8179.1 from 402 yorkshire Drive, Lawrence. Day cloudy with occasional sun. Wind from S about 5-8 MPH. Grackles and starling still using roosting site NW of home. 82.3 at Lake View Causeway. 2 shrikes on line. Lakes now separated by approx. 100'. 13 killdeer, 3 Wilson snipe, 3 ringbilled gulls in area.



The hillsides S & W of lake are in good color of reds, browns, goldens and greens. The riparian colors of cottonwoods are 95% yellow with some yellowish-greens in the younger trees and leaves 50% removed in an overall pattern and 5% green trees, these larger cottonwoods and solidly colored (green).

86.2 Annette observed first bald eagle (an immature) of the season. It was circling over cottonwoods on N side of Kaw River. Observed from 3/10 mi. E of Oakley Creek county bridge. Along the river road were bluejays, redheaded woodpeckers, slate-colored juncos. 88.0 redtail. meadowlarks, mourning dove and gray squirrel. 89.4 Lecompton bridge. River meandering and river bed mainly sand. Water lower than I have seen for long time. The sands are more generally distributed and river more braided than pre-Army Corps days. Cottonwoods brilliant yellow. Locust at height of color. 92.3 Delaware River bridge W of Perry. 93.0 redtail 94.2 highway 24, redtail on high pole. 95.4 Thompsonville. Will now keep complete list of birds. Starling. 96.0 6 bluejays. 96.2 now N. 96.3 Crow, 3 bluejays. 96.4 2 bluejay. 97.0 Overlook Point. at 10:30 240 Franklin gulls flew S over SW end of dam, circled and gained altitude, then when about in center of Kaw Valley descended to lower elevations as if searching for food rather than migrating. 30 more trailed in the next 5 minutes. 2 ringbill gulls were in the same flock. Only a pied-billed grebe along base of dam where 6 days previously were hundreds of coot. One ring-bill also resting at base of dam. Some 50 widely dispersed coots in lake proper and only 1/10 number of ducks previously observed last week. The Indian burial mound SE of Overlook has not been worked on since original trench across the mound. 97.6 W end of dam and now to N. 97.9 bluejay. The contrast is deep, brownish reds and maroons of oaks against brilliant yellows of cottonwoods. 99.3. east end of peninsula. There were approx. 4000 gulls (Franklin) in middle of lake to east. The left and flew approx 4/10 mi. S and alighted again. Some ring-bill gulls (8) were associated with the Franklins. The juvenal ringbills noticeably darker than the Franklins. One horned grebe and 30 coot on NE end of the peninsula. At 99.8 back to main road. 00.0 2 meadowlarks. 3 ringbill gulls and 2 coot at 00.3. 01.0 at picnic turnoff at head of bay. 6 ringbills here and 40 coot beyond point to NW. Now returning. Will not keep census on return to dam. Noted 3 2" butterflies. 03.5 W end dam. At intake water at 888.8 feet and lowest I have observed. At E end dam approx 300' from shore were 1 adult snow goose and 4 young together, 46 blues and 72 snows and 120 coot in another flock and 44 Canadian geese in still another group. 3 ring-billed gulls associated. 05.9 east end of dam. 06.1 headquarters. 07.4 5 crows. 07.9 beginning Ferguson Rd. 09.0 15 coot at Big Slough Creek bridge. 30 more coot on N side W of bridge. 2 bluejays.

09.7 bluejay. 10.5 now to Slough Creek Park. 11.9 Slough Creek gates. Pond to right on hill 12' across and with green algae at E end. 2 bluejays. 12.1 now to left, 2 bluejays. 12.8 fox squirrel. Bypassing boat ramp circuits to east. 13.3 red-bellied woodpecker. 13.5 requeue road at S end ridge. 2 coot 13.7 12 more coot. 13.8 5 more coot. These along shoreline. 14.1 fox squirrel at road at head of bay. 30 coot left bay area and swam into lake to W. bluejay, bluejay, bluejay. 14.4 3 coot. 14.6 old county road and 2 1/2 feet above present lake level. It has maintained its original structure and is without surface erosion. 14.8 boat ramp at Gap Point. 30 coot in groups of 1-3 and approx 400 together in bay to NE. Trees on hillside 50-50 leaves & leafless. The oaks account for the trees with leaves and these are brown of dead leaves, and reds and golds of about equal amounts. Red headed woodpecker. 2 bluejays. Cormorant flew from E to W. Time 12:17 Left 12:20. 16.0 bluejay. 6 goldfinch. 16.3 gates on way out. 17.3 Ferguson Rd. 20.6 2 bluejays. 21.8 redtail on road to Longview. 22.3 entrance to Longview Park. 22.9 3 ring-bill gulls. 23.1 boat ramp. Pied-billed grebe. 23.6 2 bluejays. 24.1 5 bluejays. 24.9 Park exit 31.4 back to Ferguson Rd. Few drops of rain. 32.8 Little Slough Creek bridge. water in ponds and soil between. 33.9 redheaded woodpecker 35.1 Old Town (SW corner) 18 coot. 8 ring-billed gulls, 120 coot on S side Park on shoreline. Redtail. 36.4 Ozawkie Bridge. From road below Ozawkie on S side dam at water edge at 1:45 P.M. for 20 minutes. did not see kind of birds flying over water in this area. Water almost a mirror. Approx. 30 coot generally distributed along the shoreline. Collected a small unionid. Quadrula quadrula from shoreline just N of our position here. no. 751102-1. no 751102-2 a Leptodea laevissima This specimen is generally small in comparison to those of the Wakarusa River. The other two unionids are Leptodea laevissima, Leptodea fragilis, the former 3 time more numerous than the latter. The external color of fragilis is light in comparison to laevissima which is dark, especially area beyond the initial growth of the first 1 1/2 inches of shell. End of census. Followed Old Military highway on return keeping on road nearest Big Slough Creek to W. at 43.4 on military highway observed 18 eastern bluebirds in one flock. marshhawk at 4H campsite near gates (inner). ~~at 100~~ Continued S to SE corner Perry Reservoir area and thence to Lawrence.

751103-127

Museum of Natural History, Univ of Kansas, Kansas
Nov. 3, 1975

From top of museum took the following photographs:
751103-1 Campus and trees in city of Lawrence to the SE.
751103-2 same as above
751103-3 To west over campus ~~city~~ of Colors.
751103-4 NW over stadium showing color of trees. Foreground showing construction of Helen Foreman Spencer Museum of Art.

Perry Reservoir (Walters' Lake), Jefferson Co., Kansas
Nov 5, 1975

Checked beaver damage on Walters' Lake. Left 11:25 at 11.3 mileage. Temp. 64°F. fog. (2 miles) 18.5 redtail. 18.9 Lecompton ~~bridge~~ Road. 20.4 mockingbird. 22.2 Lecompton Bridge. 27.4 SE Perry Reservoir area. Walters 11:55. Followed drainage from SW corner property. Enroute observed 4 redheaded woodpeckers, 1 flicker, 4 bluejays in forested area (exclusive of lake border). A downy woodpecker + robin only other kinds of birds. Damage to trees included 1 oak down, 1 1/2 cut, a creosoted tree worked on, both willow trees with creosote cut by beaver. Back to car at 1:00 P.M. At Big Slough Creek dam 18 coot NE along shoreline. 35.0 redtail. 35.3 beginning Ferguson Rd. 43.2 redtail. 43.8 Oakley Creek S side Kaw River. Home 52.1 at 2:00 P.M.

Helen Foreman Spencer Museum of Art, Univ. Kansas, Lawrence, Kansas
Nov. 7, 1975

Photo 751107-1 ceiling of second floor with recessed plates in position except in SE corner and this area awaiting walls and the elevator shaft.
Photo 751107-2 of color of trees beyond stadium.

Perry Reservoir, Jefferson Co., Kansas
Nov. 8, 1975

Annette and I to Perry Lake and Walters' Lake for week end. Left 3:00 P.M at mileage 8409.1 Temp 70°F. Day clear except clouds entering area ~~from~~. Wind from S. 10.0 2 redtails. Followed along Kaw road to Lecompton. At NE of Perry high school on hillsides the trees are 99% leafless. 25.3 SE of Perry reservoir area. No birds in Big Slough area. 28.8 Walters' lake (SW corner). Along old county road observed 1 flicker, 5 bluebirds, 3 robins, 8 juncos, 12 Harris sparrows, 15 goldfinch and 2 song sparrows. (3:38 P.M). Thru the

forested area noted 8 redheaded woodpeckers, 2 yellow-shafted flicker + 6 bluejays which were more birds than around the lake. Set 5 beaver traps in bay on W side lake with 15 lb rock attached to trap adjacent to deep water in trails in water. Left lake and returned to car, thence to Longview Park where we camped along side of reservoir (first camp to right). Temp at 7:00 P.M = 59°F. Sky with some clouds to W causing lake to shimer. At 8:00 PM = 60°F.

Longview Park, Perry Reservoir, Jefferson Co., Kansas
Nov. 9, 1975

Birds in area include 8 coots, 3 cormorants, 4 bluejays, 300 mallards, 4 shovellers, 12 Bonaparte gulls, 8 ring-billed gulls, redtail, crow. Last night 4 flocks of geese (snows + blue) passed by. Min temp 64°F which is present temp at 7:00 A.M. Day cloudy, wind creating whitecaps. All oaks on sidehill brown and partially dry. Some trees greenish-yellow. All others with leaves off trees. Measured a coyote track 60 x 90 mm. One deer track 85 mm. This large deer had investigated the shoreline for at least 300', moving along edge to water and 30' inland. One raccoon track here. Left area and returned to Walters' Lake. Noted 1 shrike enroute.

Along the old county road at SW corner of property noted an aggregate of birds including: 18 Harris sparrows, 10 slate-colored juncos, 1 nuthatch, 3 black capped chickadees, 2 redbellied woodpeckers, 8 goldfinch, 2 titmice and 2 bluejays. One deer track measured 65 mm. No beaver in traps in spite of considerable activity in W arm of lake.

Lawrence, Douglas Co., Kansas
Nov. 12, 1975

First cold day of season accompanied by strong NW winds. First rain on nov. 10 but short lived.

Univ. Kansas, Marvin Grove, Lawrence, Douglas Co., Kansas.
Nov. 12, 1975

On the turn from Mississippi St to Memorial Drive, a fox squirrel attempt to cross the road to Marvin Grove against a front wheel of a passing car travelling approx 10 M.P.H. The squirrel forced itself against the tire continuously for at least 20 feet before it dropped back just far enough to continued across the road under the car.

In the last 2 weeks I have observed 2 groups of people collecting black walnut in Marvin Grove, each with a large cloth bag the size of a pillow case. These nuts are the winter food of the fox squirrels.

Perry Reservoir, Jefferson Co., Kansas

Nov. 16, 1975

Left 402 yorkshire in Lawrence at mileage 8571.1 at 1:50 P.M. Temp. 66°F Last week we had 2 days of temperature 34 to 36°F at night. At Lakeview noted 4 wilson snipe and 6 killdeer, both species feeding in shallow water in flats of receding lake and both effused. Leave gone on hillsides except a few isolated trees and these near the base of the hill. Continued to Overlook Point on SW end Perry Reservoir. From here can see approx 6,000 ducks in center of lake N of dam including 5000 mallards, 1000 scaup, 3 pintails, 6 shovellers, 8 horned grebes, 2 redthroated loon, 19 ring-billed gulls and 4 Bonaparte gulls. a marsh hawk hunted in field to W. At the SE park of ~~reservoir~~ reservoir along dam were 2000 blue and snow geese (60% snow, 40% blue). The heighth of the water at scale on outlet was 887.6 or 888.6. At the marina, a marsh hawk flew across the bay.

Lawrence, Douglas Co., Kansas

Nov. 27, 1975

Snow Monday 24, Tues 25 accumulating to 7 inches and accompanied by night temps of 16, 14°F.

402 yorkshire, Lawrence, Douglas Co., Kansas.

Nov. 27, 1975

Our cat brought home a Sigmodon from across the street along a drainage ditch. It measured:

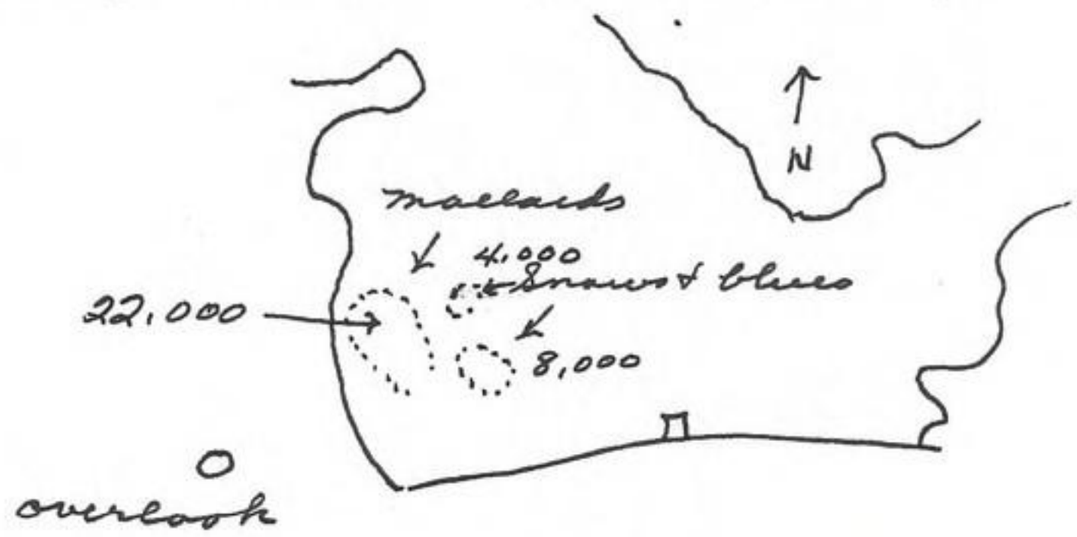
751127-1 Sigmodon hispidus 265-98-33-7-115 gms, testes 18 mm

Perry Reservoir, Jefferson Co., Kansas

Nov. 28, 1975

Checks on birds at Perry Reservoir. Left 8726.4 at 7:40 A.M, temp. 18 degrees F. ~~Et~~ S half sky high overcast, N half clear, slight wind from SE. Snow covering all ground surfaces, hoarfrost on lower shrubs, ground plants and lower half of trees. 26.9 starling. 27.3 yellow-shafted flicker. 29.1 4 meadowlarks 29.3 38 meadowlarks in feed lanes in cow pasture. Cardinal. 29.6 Lakeview causeway. all water in ice and covered with white snow or sparse snow. 31.2 y.s. flicker, S.C. juncos. 31.3 2 mead. larks. The stacks of cut field vegetation is creating a new ecological niche with high perches, recesses among mounds of vegetation etc. These are generally consumed or reapplied to field but many are left from year to year and gradually decompose but still maintain their foreign shapes.

31.4 sparrow hawk. 31.8 7 meadowlarks in road 32.3 red-bellied woodpecker 32.7 8 med. larks flying across field. 33.1 at bridge at beginning Kellside rd. 2 bluebirds. 33.2 bluejay Kaw River flowing but 90% in moving ice masses. Sands covered with snow except 2 feet from edge of water, Downey, bluejay, 8 b.c juncos. 33.4 16 bluebirds, 8 juncos, redheaded woodpecker, 2 chickadees, 2 titmice. Bluebirds eating berries. 33.5 2 bluejay, 4 juncos, 2 b.c. chickadees. 33.6 7 juncos in road. 33.9 chickadee, 5 juncos. 34.0 Towhee, Cardinal, 8 juncos. 34.3 8 juncos, bluejay, cardinal. 34.7 Oakley Cr. (juncos are slate-colored and chickadees blackcapped) water frozen in Creek. 34.8 2 bluejays. 35.0 5 cardinals. 35.2 cardinal. 35.3 2 bluejays. 35.4 4 bluebirds, 2 bluejays, bluejay, bluejay. 35.6 bluejay, 4 juncos. 35.8 2 starling, 8 starling. 36.1 Lecompton Rd, 4 juncos, 8 starling. 36.8 Lecompton bridge (center). 2 mallards, (2 sets of decoys to E, 1 to W. 8 blinds all told. This area of winter refugia for bald eagles should be maintained as free of hunting, airplane use of fields to N and trespass, Obviously no eagles in area today. More hoarfrost in river valley. 37.4 40 starling. 39.6 Delaware River bridge. Some open water and low, 2 bluejay & 1 red-bellied woodpecker. 40.7 3 meadowlarks. 41.6 Highway 24. 42.9 Thompsonville Rd. 3 juncos. 43.4 Crow. 3 bluejays. 1500 blues and snows moving SW over ridge from Perry Reservoir. 43.6 now turning N into reservoir area. 4 bluejays. 150 mallards following snow & blue geese. Single grackle. 44.5 Overlook at 8:45 A.M.



Below and to the N were 2 groups of birds, one of snows and blues in two compact groups and secondly a large mass of mallards to the N and nearer the shore. As the road is temporarily closed along W edge of lake, the ducks were less disturbed than they are when traffic is allowed. At 8:55 while watching the geese with 60x scope, a Cessna plane dropped down from the NW and flew directly towards the geese and at an altitude about the same heighth as the dam outlet. At the same moment, 3 hunters stopped their car on the dam and fired three shots into the air (except 5 and 4 of these left 1 minute later). All of the large group the geese left instantaneously with loud massive voice as they departed to the SW into the Kaw valley. It was estimated that there were 8,000 geese in this single flock and 4,000 in another group 3/10 mi N of

the main group. Only one blue goose remained in the lake. The plane did not disrupt the mallards who were nearer the shore and out of the direct flight of the plane. During the time these geese were out over the valley until they return heard 18 shots from hunters shooting at these geese. At each time they were fired upon they called vociferously. Geese returned and alighted by the only goose in the lake, a cripple and surrounded at 9:10 A.M. After alighting they quieted down to the normal flock call in approx. 1 minute. After alighting in one flock and fewer individuals than the original number, they immediately compacted their group. The two forms, snows and blues, are at random in distribution and I would estimate a 60% snow + 40% blue composition. This ratio gives a salt and pepper effect which is not evident with a larger or smaller percentage of the two forms. Before these geese left the first time there was a tendency for slight separation between snows & blues. Since my arrival there has been a movement of starling to the S in flocks of from 20-60 at tree height on W side of lake. They continue S over W end of dam. I would judge there to ~~be~~ have been 30 such flocks so far.

Sun beginning to shine, water with just enough surface action to eliminate reflective surface. All Perry Reservoir open and free of ice. All countryside in snow cover. Redheaded woodpecker always in area of the overload, one paying considerable attention to hole in tree. Bluejays always present or passing by. One flock 60 robins passed by and redheaded woodpecker reacted by calling vociferously. The robins are also passing S in flocks but these flocks are generally higher on hillside than the starlings which are at tree height or below at water edge. One redheaded woodpecker pulled a gall from branch of elm and flew away with it.

The water among geese is smooth in contrast to rippled water surface of general lake surface.

The first 15 geese of the flock advancing to the S on water are blues. Calls at 9:45 A.M are about 4 per second. When a high plane passes by the calls increase, the necks are stretched upward and the bill is tilted toward the plane. These geese react to planes whereas the mallards are not concerned. This would indicate that the mallards are conditioned to plane in their breeding area or the geese are harassed more persistently.

made count of 4 classes of geese in flock mainly from edge of flock where geese 3 or 4 deep and be counted with reliability. These classes are adult snow, young snow, adult blue, young blue. It can be shown statistically: percentage snows to blues, young to adults, separation or random arrangement snows to blues, ~~and~~ etc. S = adult snow, s = young snow; B = blue adult, b = young blue.

The first census is between adults and young of two forms combined:
A, A A y A y A A y A y y A A A A A A A A y A A A A A A A y A y A Y y A A A A A y A y y A A y
y A A y y y y y y A A A A y A A A A A A A y y A A A A A A A y y A A A A A A A y y A A y y y y A A y
A A A A A A or 68 adults 33 young.

Start census Now census of young & adults of 2 forms separately:
S S b B S B S S B B B B B b B b S S S S S b S s S S s S B b S b b (group just arrived included, B b b b S) B B b b S B b B B s S S s s B s s s B b B B B
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s B S S S B B S s B B S B. b B S s S s B B S s. S s s s B B B S S.
(at this time at 9:50 the flock left and alighted 200' to E as result of a car, dam that honked its horn and stripped its wheels on the macadam. There has been several instances of cars stopping & honking horns without geese leaving the surface. The geese however, always reacts by changing direction of movement on the water. At this time 150 mallards remained in the area occupied by the geese indicating infiltration of mallard into the flock of geese). Will continued on with census: s S S S s S S S b S S b B s
B s S b b S S b S S B B B B B b S S S S s B B B S S S s s s S S B B B b
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S s s s s s B S B s s S s s s s S s S S S S s s B b B b b B b B S s
B S S s s s s B b s S S s s S S S S s. (the last 76 were at edge of flock where a raft of mallards made contact with these geese drawing young of geese to contact. 5 Canada geese created the same aggregation of the curious young. Increase wind will

7 minute census

751128-133

Of the count of birds between the notation 'start census' to 'finish census' of previous page made the following notes:
(S=284, s = 139, B = 207, b 84.)

Percentage of adult snows to blues: 57.84 snows, 42.16 blues

Percentage of young snows to young blues 62.33 snows, 37.67 blues.

Percentage adult snows to young snows 67.13 adults, 32.86 young.

Percentage adult blues to young blues 71.13 adults, 20.87 youngs

Percentage adults (snows & blues) to young (snows & blues) 68.78 adults, 31.23 young

Percentages of snows to blues 59.24 snows, 40.75 blues.

The group of snows & blues were originally judged to be 50-50. The white snow geese appear larger than dark blues and this factor of white appearing larger may account for the differences between the census by estimation and census by count. I have no idea what the adoptive advantage of the white plumage may be.

Of one group of 101 snows and blue geese that become segregated from the main group for a minute or two and then reformed as part of the main group. 68 were adults (69%) and 33 were young or 31%. This compares precisely with the census of 7/4 of the main flock (see above)

Of one group of young + adults that approach the edge of the main flock of geese as a raft of mallards approached the percentages changed thus:
51% young to 49% adults. The snow young demonstrated the greatest curiosity with 53% young snows and 47% adult snows. The ~~sno~~ young blues should some increase over the adult blues of general flock composition with 40% young blues and 60% adult blues or 11% increase of young over general flock composition.

In count (3 wide at various angles thru flock): adult snow from 1 to 6 in consecutive count, adult blues 1-6, young snow 1-4, young blue 1-3.

just E of geese about 150' are 5♂ and 16♀ goldeneyes. Starling passing by are decreasing but robins are increasing in numbers as they pass by in small groups of 15-40.

In watching the geese can say that there is definitely groupings of adults and young, generally in groups of 1 to 4 young per adult, where family groups are present. Watched one adult and young for 20 minutes which never separated more than 4 feet as they circulated in the flock. At 11:05 the geese started to bath vigorously followed by flapping of wings (30% of flock) some lifting themselves out of the water to 1/2 length of legs. Between 11:05 and 11:30 the geese showed more and more unrest, some flying out 150' and then returning and others flying from one part of the flock to the other and at no particular increase in vocalization. At 11:30 2000 geese left joined by about the same number of mallards. These ducks and geese flew SE to E end of dam & then more southernly beyond in contrast to the movement earlier this morning to the SW. Second group left at 11:36 (1500), at 11:37 1500 left. 3000 left 11:38. 11:40 most of the mallards that left are returning. 11:42 2 groups of 2000 each left. leaving approx 2000 on water. 11:44 1000 left. The 1000 remaining are about equal in percentages of blues & snows 11:48 800 left. As groups leave (generally from edges or advancing edge) the remaining compact in the group formation on the water. 11:49 50 left, 11:50 65 left, 11:51 55 left leaving 36 on water, these compacted again as usual. Of the 36 18 are snows and 18 are blues. 7 are ~~white~~ snow young & 11 are adult snows, 13 are adult blue and 5 are blue young. Of this group there is approx 1 call per 4 seconds. At 12:00 the 36 geese are mixed ~~and~~ in with the mallard raft, prior to that time they were able to maintain a fairly good group identity. 12:10 3 blue geese, singles have joined the 36. 12:12 all geese left except adult blue (good yellow-orange color in white of head) and 2 young blue, 3 adult & 2 young snow. And these regrouped after flock left. One of the above young snows seems larger, especially head and bill.

The mallards, except for the original group that left with the first geese and a few small groups, have remained on the lake. They swim fast and the rafts change from compact groups to long linear rafts somewhat dendritic.

Noticed some geese dragging one leg but on landing on water use both legs, One ring-billed gull and 1 Bonaparte gull only gulls observed in area. Left the Overlook at 12:13 P.M, temp 42° F.

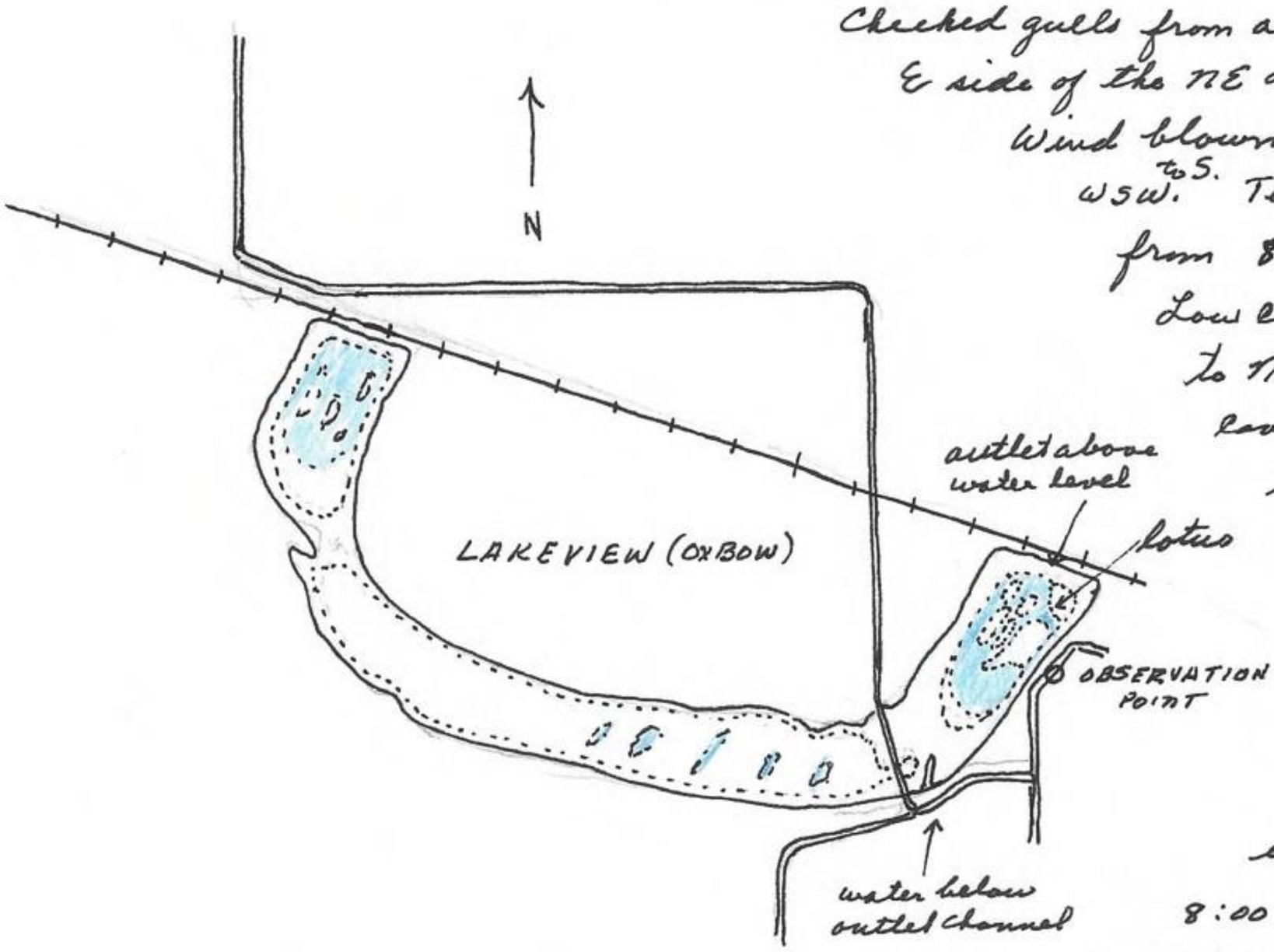
44.9 3 bluejays, 2 redheaded woodpeckers, 2 juncos on grade to dam. 45.1 W end dam. Road N closed. 45.4. 2 horned grebes, 1 male and 2 female bufflheads, 18 starling feeding on road at top of dam. 44.5 2 male bufflehead, 1 female buffle head and 3 ♂ goldeneye and 6 ♀ goldeneye. 45.7 5 more bufflehead & 3 goldeneye. 45.8 outlet and lake at 988.80 ft. 46.6 E end dam at end of guardrails. Wind from S. 46.8 main road. Snow melting, roads slush and wet. 47.2 2 bluejays. 47.5 SE end Perry area, now S. 11 goldfinch here. 48.9 40 robins. 52.9 Leecompton bridge. 1 ring-billed gull flying up river. Can see 4 hunters in river area E & W of bridge. ~~8~~ blinds are visible. 53.3 5 meadowlark 53.7 now E on river road. 53.9 redheaded woodpecker. 54.3 3 crow, 1 starling. 54.7 27 starling, 8 meadowlarks in horse pasture. 54.7 meadowlark, mockingbird. 55.1 Oakley Creek, 2 juncos. Water on top of ice in creek whereas this morning was ice only. 3 mea 55.4 4 juncos. 55.5 bluejay, 8 juncos, 55.6 2 cardinals, 3 juncos. 55.7 redbellied woodpecker. 55.8 4 juncos, 1 bluejay, 4 tree sparrows. 56.0 bluejay. 56.1 2 bluejays. River freer of ice. 56.4 stopped and walked over to river. River mainly water but large ice islands, one 30'X50'. Set overload edge ice and wheeled around in river. 4 ♂ american mergansers & 5 ♀♀. 3 ♀ and 1 male goldeneye. Both species feeding together. 6 killdeer. 100 starling dropped to shallow bay and fed on mud and at edge of shallow water. 6 crows moved up river calling. Returned to car. 1:35 P.M Coyote tracks in snow as well as rabbit. ~~Start~~ 56.7 bridge at E end river-hill rd. 57.3 meadowlark. 58.1 24 meadowlarks. 58.3 2 meadowlarks and 4 starling. 58.4 8 meadowlarks. 58.6 2 keeldeer & 20 starling in road together. 59.5 5 meadowlark. all bends in roads have meadowlarks who are feeding on grain that spills from trucks as result of centrifugal force. 60.0 12 meadowlark, 4 juncos, 2 starly 60.1 Lakeview Causeway. Water now on much of the ice on lake which was ice this A.M. 60.5 7 meadowlarks - 60.6 21 meadowlarks - 62.4 3 meadowlarks. 62.5 sparrow hawk. 62.6 Peterson Rd. 63.4 home at 1:50 P.M temp. 43° degrees F.

Lawrence, Douglas Co., Kansas
Nov. 28, 1975

Noted 8 ring-billed gulls below Brownsack dam on the Kaw River. Also one flying down river at turnpike bridge in Lawrence. at 4:00 P.M.

751129-136

Lakeview, Douglas Co., Kansas
Nov. 29, 1975



Checked gulls from a vantage point on E side of the NE arm of the oxbow. Wind blowing 10-15 MPH from WSW. to S. (yesterday at this time 14°F) Temp. 62°F, time from 8:00 AM to 10:00 A.M. Low clouds moving rapidly to N. Yesterday snow covered all ground and lake, today snow gone from ground and ice on lake breaking up. This breaking up of ice from 80% ice to 10% ice between 8:00 and 10:00 A.M as a result of the disappearing ice, the exposure of a 'fish-kill' of Dorosoma cepedianum or gizzard shad had attracted many gulls fluctuating in numbers from 250 to 500 to the area. The die-off was treated by lowering of water and dissolved oxygen content of water and sudden freezing or cold temperatures. At one time the lake, at it present low level was completely sealed with ice and this event might have triggered the kill. The smallest fish was approx 2 1/2 inches and the largest 8 1/2 inches. The herring gulls were eating fish up to approx 8 inches while the ring-bill gulls could only handle fish up to about 6 inches. All fish were the gizzard shad and all seem to be in a ridged state of rigormortis; many taken thru the thin ice were slightly curved in outline. No live shad were taken by the gulls.

Except for 10 immature herring gulls, ranging from very and conspicuously dark birds with nearly all tail dark to lighter (second year?) birds the rest were ring-bill gulls and these mainly adult, however all had some darker markings on white head. Two ring-bills without white marks in primaries and these with segmented bands in tail band.

As the ice would break up and move with the wind, shad were exposed and gulls would then increase their feeding activity and at times 40% of the birds would ~~be~~ have captured a fish and were working on their prey either in the water or on the ice. Their feeding tactics were to feed or fly into the wind above the open water for 100 or so

then turn and sail back with the wind to change direction again into the wind for searching for fish. There was not really too much systematic searching as fish were so plentiful that a gull could make its catch without searching or hunting. Fish were captured by either picking them out of the water while flying just above the surface of the water (actually uncommon method) to gently diving (without forceful splash) into water with submergence of body, part of tail and head only. Depending on depth, the gulls would submerge from head and 1/2 body to entire body up to first joint (1/2 way) of wing. At no time did I see gulls submerge beyond the first joint such as, for example, total submergence. These antics were relegated to the herring gulls. In some cases a gull would repeatedly dive deeper & deeper if the fish had a tendency to sink during the capture operation. Where the ice was thin enough, gulls on the ice would peck thru ice and capture fish. These fish were generally those with curved profiles.

Some other observations of behaviorism are:

Other ring-bills can be seen flying in area of the NW end of Albau as if similar activity on fish predation was going on there.

Redtail hawk flew over gulls (100' ~~long~~ high) causing all of them to leave the ice or water but they returned immediately without leaving the vicinity of the fishing area.

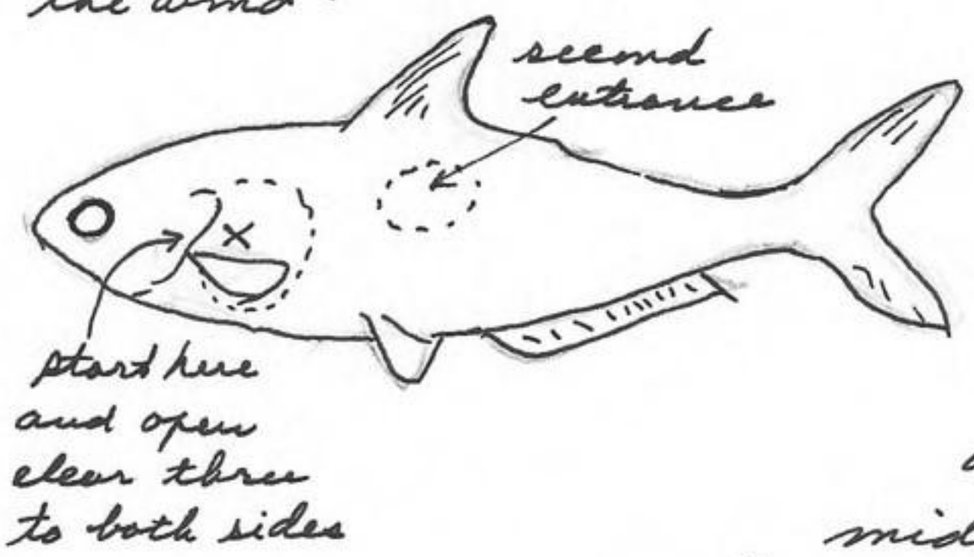
One ring-bill with black blotch on left side of head (rear) on otherwise white head. One gull with band of ~~left~~ right leg.

10% of ringbill are first year or between first year & adults.

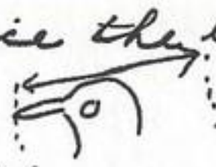
Gull ride floating ice masses (with wind) until mass rams other (metimes 200') ice masses and then on contact they all leave together and move up wind to find other resting places on other ice masses. Weight of gulls will depress ice sheet up to heighth of leg.

The larger and more mature the gull the better and more distinct the black band on the bill.

Some gulls have difficulty standing on ice and feeding against the wind.



If the shad cannot be swallowed all at once (always head first), the areas above and back of pectoral fins are excavated completely thru body with head just hanging onto body, and then secondarely in middle of fish. and even though the head looks like it would fall off the body, the gull will gather it together and with the rest of the body swallow it head first. Fish swallowed to tip of tail can be easily rejected at will.

Gulls can swallow fish twice the length of the bullhead head and then immediately fly away.  Herring gulls seem to have less difficulty in swallowing fish than ring-bills. After a gull swallows a fish there is an elevation of feathers on the back of the neck.

Herring gulls will eat fish that cannot be eaten by ring-bill because of being too large, a fish.

At only one time did gulls (30 of them) search the area of the lake grown to lotus.

At one time a group of 20 starling and 2 redwings alighted in cattails on a side of lake. Starling both in shallow water closer together than is their tolerance on telephone wires.

2 Wilson snipe and one killdeer fed on opposite side of lake, the Wilson snipe up to their bodies in water.

Left area at 10:00 A.M.

In Lawrence the temp rose to 68°F at about 4:00 P.M. and by midnite the temp dropped to 20°F.

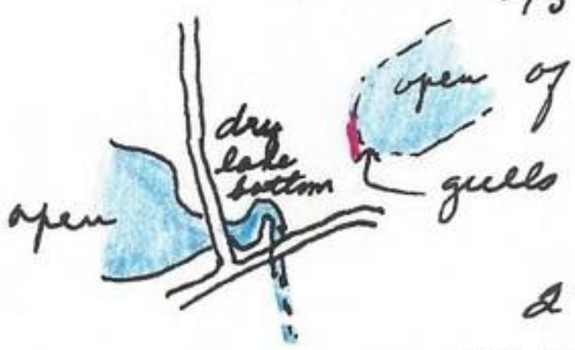
This afternoon 12:14 P.M. a severe thunderstorm passed by with accumulation of a little less than 1 inch of rain. At 12:14 P.M temp 63°F and at 12:16 P.M two minutes later the temp. was 53°F. In about 1/2 hr later the temp rose again to 63°F.

Lakeview, Douglas Co., Kansas
Dec 1, 1975

Checked gulls at lake. NE arm in ice as was the ~~&~~ NW arm. The central part was in partial water. 9 ring-billed gulls on ice in NE arm and 6 hunting in partial open water just W of causeway.

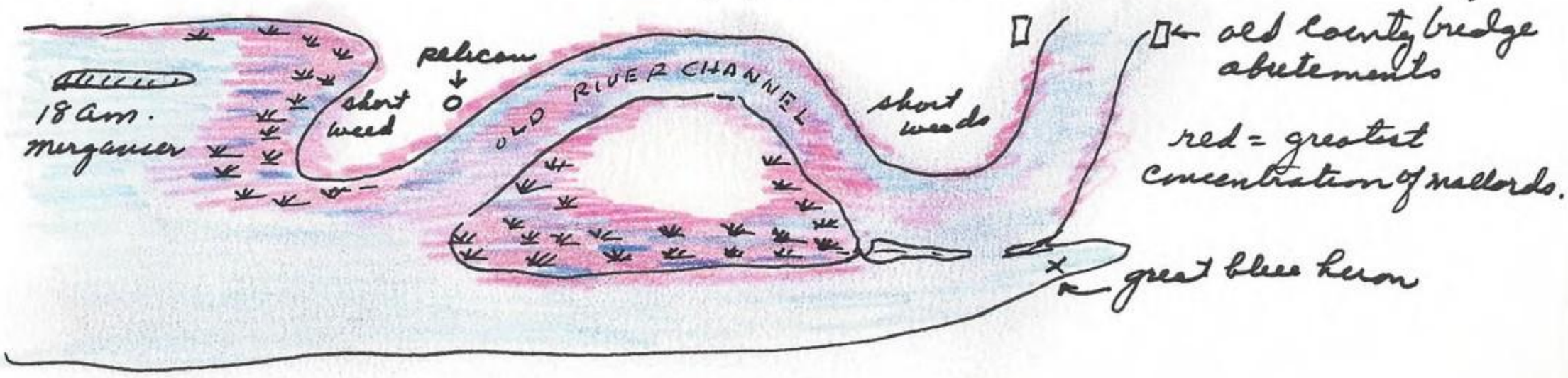
Perry Reservoir, Jefferson Co., Kansas

Dec. 7 1975 left home sky 80° overcast, some low cloud. Temp. 26°F, 8:15 AM, 8922.8, gentle breeze from E. No snow on any exposure. Complete census 23.6 starling, 24.8 starling. 25.1 redtail sunning on top of telephone post. 25.6 yellowshafted flicker, 3 juncos. 26.0 Causeway at Lakeview. Water open, 5 ringbill gulls hunting to W, 160 and 1 herring gull resting on new ice 10' along shore(S) of NE arm of oxbow, now 2/5 in dry land. Water maintaining course to one of the outlet channels to S. No feeding activity in NE arm. 3 bluejays. 26.2 12 meadowlark. 27.4 redtail top cottonwood facing sun 27.7 12 starling. 28.4 shrike. 29.0 8 bluebirds 29.5 bridge and beginning of hillside road along Kaw River. No ice or snow in river valley. Water placid. ~~to~~ no small



birds. (up to 30.6) 31.1 Oakley Creek. Water running no ice or snow. 31.6 bluejay, downy and redheaded woodpecker. 31.7 bluejay. 31.9 10 bluejays one group. 32.0 2 bluejays, 8 juncos. 32.4 Lecompton Rd, 5 juncos. 33.2 Lecompton Bridge, water higher. No eagles. 33.3 flicker. 36.0 Delaware Bridge. Water now covering piles that were exposed 8 inches about a week ago. bluejay. 36.2 3 cardinals. 37.7 4 meadowlarks. 37.9 highway 24. 39.2 Thompsonville Rd, 5 juncos. 39.7 bluejay & 5 juncos. 39.8 7 bluejays, 39.9 2 bluejays. 40.0 now N. 1 meadowlark, 28 juncos, 18 tree sparrows, 4 bluejays & 1 redheaded woodpecker. 40.1 flicker. 40.2 5 bluejays. 40.8 Overlook, 9:00 A.M. water placed. Only one gull in water N of dam and no other ducks or geese except approx 500 mallards near shore of SW corner of Big Slough Park. I have never seen the area N of dam so depauperate of ducks or birds of any kind. At this place - 4 bluejays, 3 fox squirrels and 1 redheaded woodpecker. Country quiet. Left 9:05. 41.4 W end dam now north. 41.6 2 bluejays. 42.2 main road, 7 bluejays. 42.5 18 mallards at head of bay at old county rock bridge, 3 mallards swim back to bay under the bridge. They left. No ducks or waterbirds along entire W shore to this point. 42.6 now E to peninsula. 43.1 only bird in entire lake to N from NE end peninsula is one red-breasted merganser. no gulls or ducks. Some shore ice (6") on south side peninsula. Metalic reflection in lake from sun. 43.6 back to main road. 43.8 2 bluejays 43.9 8 mallard tucked in head of bay. I have seldom seen so depauperate wildlife in main lake. 44.9 15 mallard in upmost bay. 45.1 head drainage on road. 45.9 going up hill. 46.9 high 237. now N. 48.3 2 bluejays. 48.5 Rock Creek bridge (center). A large adult bald eagle cross causeway near W end and flew N to point in Rock Creek bay where 300 mallards were resting and feeding on shore. The ducks did not react to eagle circling above, which, in turn flew W to a group of 37 American mergansers (9 males and 28 females) where it circled three time and thence flew W and then N out of bay area. Mergansers did not react to eagle which sail approx 150' overhead. This bridge vibrates when cars pass over it. 4 ring-billed gulls in bay. 49.2 2 redtails together, 18 juncos and 10 tree sparrows. 49.8 2

juncos. Fresh cottontail rdkill. 50.7 marsh hawk. 51.2 meadowlark. 51.3 2 starling. 51.7 redtail, now N. 51.8 5 tree sparrows. 52.7 2 juncos. 53.5 bluejay. 53.8 dead crow in rd. have seen 8 hunters in field. 54.6 sparrow hawk 55.0 main rd now E, flicker 55.6 redtail, 8 juncos. 56.7 leaving main rd at Ozaukie to old partly submerged rd to S. 57.1 at end of road. 8 ringbills resting at point. water up & covering mud shores of previous trips. 310 American mergansers off point to S. 26 ring-bill gulls and 1 herring gull circling above mergansers robbing fish. Time 9:55 A.M. 2 mergansers flattened shoreline to main group. Usual group of juncos and tree sparrows in weeds along shore but fewer than previous years (80 tree sparrows + 20 juncos). 57.4 back to main rd at Ozaukie and continuing E. 57.8 bridge. 59.2 bluejay. 59.7 now N. 60.0 shrike, bluejay. 60.3 3 bluejays. 60.8 bluejay. This year is a high for bluejays. 61.0 2 juncos. 61.8 now W to Paradise Pt. fox squirrel. From point on rd overlooking reservoir just before entering Paradise Pt., can see approx 28,000 blue and snowgeese on point & shore on S side of peninsula (1/2 waypoint). 1/5 of the geese were resting or walking on shore which was free of vegetation. The percentage were as last week. 8 Canadian geese present. These geese were resting and feeding as should be and this condition made possible by excluding hunting & boating between Oct 15 and Dec 31. Now if they could exclude shore fishing the birds would have even more peace of mind and good resting areas. 63.3 entering Paradise Point gates. 63.8 red bellied woodpecker. 64.0 2 bluejays As I travel down this main road on Paradise Point, I cannot see the geese on the S side of peninsula and this may be one reason they remain undisturbed. 64.4 now left. 64.6 2 bluejays. 65.1 at SW end peninsula. 4 bluejays & 18 mallards flew by. No campers. 65.5 3 meadowlark. 2 American mergansers flew by, no other birds in area. 65.7 NW peninsula. 2 bluejays, 2 black capped chickadees, 20 juncos 12 tree sp. 66.1 sparrow hawk. (Disposal station. 66.8 at covered picnic area on N edge peninsula estimate 200,000 mallards



mallards mainly in short weedy vegetation inundated with water up to 8 inches in depth, some on dry land among short emergent weeds. One behaviorism of mallards was to scratch bottom of lake in water just deep enough for contact with feet while still swimming on surface of water, sometimes for 10-15 seconds and then working over area below ~~with~~ by submerged bill and head. Observed 12 pintails. one ♂ butted against a ♀ pintail with pressure enough to cause birds to rest at an angle in the water thus:

and they maintained this position for about 20 seconds before the ♂ attacked the female with bill folds. The ♂ pintail are aggressive toward ♂ + ♀ mallards but some mallards repell such attacks + cause the pintail to retreat. The presence of resting + feeding ducks in this area is in contrast to former years when some place had 6-10 duck blinds and actually used as a hunting area. Now ducks can rest (20 percent) + feed in ~~relatively~~ relatively unmolested conditions. They swim among + thru the old duck blinds. 4 crows in area. 1 redheaded woodpecker at observation point. 18 american mergansers in N W area (see drawing). No eagles in area but one redtail. The pelican which was sleeping at edge of water, left willfully at 11:20 A.M and flew S over peninsula. Sun shone at 11:22 for first time while observing here. First gull passed over at 11:23. A car arrived and two people walked to edge of hill. The mallards nearest the peninsula flew inland to N about 100' but did not leave area. Left 11:45 Temp. 46°F in shade. 67.5 redtail. 67.7 left road and walked over divide + down to lake. At lake 2 green-winged teal in small bay, 1 great blue heron and about 30 mallards. All left. Deer using a trail along N side peninsula and road leading N + S. Largest imprint 86 mm, smallest 54 mm (at tube between these sizes). Coyote tracks in mud. Return to car. The geese noted this A.M are still in same area but some in raft stretching out into lake from shore. 8 Canadian geese at periphery of raft. Left Paradise Peninsula gates at 67.8 at 12:15 P.M. 67.9 redtail. 69.3 row to S. 4 bluejays. 69.9 2 crows. 71.4 Ozowhee rd. 71.9 sparrowhawk 72.1 Little Slough Creek, open. No ducks but 3 gulls in upper part of bay. 73.5 2 crows. 75.5 2 crows, 90 sterling. 76.2 Coyote running E in middle of dirt road from W and at 10 feet from Ferguson Rd stopped abruptly but slide approx 8 feet on gravel. In attempting to stop it created enough dust to almost obscure it. In addition to sliding it also was attempting to back track causing the excessive dust and flying pebbles from the road. By the time it had stopped & had passed by in the car and in

looking in the mirror I could see it walking across the road rather than running or hopping. 76.5 turnoff to Big Slough Park at 12:35. 76.9 20 tree sparrows, 1 bluejay. 77.4 entering big Slough Park. 77.8 2 titmice, 1 bluejay, hairy woodpecker 78.1. now to left. 12 mallards E at point across from boat ramp, flicker. Bypassed boat ramp rd. 2 gulls toward bridge. no other duck. 79.1 cardinal at point, 25 starling, 3 bluejay. Mallards observed this 1 m. still in same general area. 2 robins. 79.7 head of bay, 2 redtails. Sky to W clear, above high cirrus. 8 tree sparrows. 80.0 12 juncos. 28 mallards in bay E of old county rd, 12 in bay to W. One goldeneye left with noticeable sound of wings. 2 meadowlark. 80.4 boat ramp at gap pond. Eared grebe, red throated loon only bird in bay. 2 am mergansers flew W near shore. The redthroated loon kept opening and closing bill. Left 1:00 P.M. 81.9 gates of Park on return. 82.9 Ferguson Rd. 8.43 Big Slough bridge. no gulls or ducks. 84.8 redtail. 86.5 SE corner reservoir area at 1:10 and end of sparrowhawk census. At Lake View some groups of gulls in same areas. 99.3 ~~redtail~~ hawk. 00.0 redtail. 01.2 sparrow hawk. 01.3 Karold & Peterson Rds. 02.2 home at 1:42 P.M. (402 yorkshire). 79.4 mile trip.

Lawrence, Douglas Co., Kansas
Dec. 8. 1975

Mr. Donald Coin of N. Lawrence (east) reported to me:

Can not trap beaver at Walter's Lake because ~~lack~~ of prevailing value of beaver pelts. He will not be able to say for ~~sure~~ sure until Jan 1 when beaver trapping starts and furrier prices are available.

Beaver populations fluctuate with hunting pressure.

Sets tension of traps to exclude first and second year young.

Has trapped all local streams including Big Slough Creek ~~when~~ before reservoir. Small streams are changing to sandy bottoms and are being polluted with insecticides and fertilizer to the point where crayfish and other aquatic insects are disappearing. Places where they used to seine for crayfish ~~does~~ in great number no longer support these aquatic organisms.

When raw sewer was put into Kaw the fishing was excellent near their home, and even though the sewage collected on their lines and hooks, they caught many fish. Now the sewage is treated and the effluent is put into the water causing the lines to be coated with an inch of crud. This treated sewage has killed most of the fish and they catch very few now.

751208-143

Foxes used to be common on N side of Kaw river in their area but rabies killed them off. Some on S side of river.
Raccoons more common than usual. They have trapped 12 this year but all small. Trapping of raccoons is a sport without financial remuneration. Set traps Saturday afternoon and collect Sunday morning.

Beaver trappers at Eudora will trap all sizes and age groups without thought of perpetuation of stock.

Beaver eat bark of large trees without felling trees.

Muskrats becoming increasingly scarce.

To keep beaver pelts for long periods of time one should refrigerate.

Lawrence, Douglas Co., Kansas
Dec. 9, 1975

Purchased a painting (tempera) by Don Secondine, a student at University of Kansas. The price was $50.00. He was, as I remember a Delaware Indian and had married a Wichita women. He attended Haskell College at Lawrence and had his work exhibited in many museums of the country. While a student at K.U. he worked at the museum of natural history where I got to know him. He visited our home on many occasions. The painting no. 751209-1 is of an Indian who is guardian of the animal and birds. He is always seen as riding a white elk. He carries a stick and a bag full of snakes. The animal forms surrounding the guardian are representative of the different tribes of the Delaware Indians that originally lived in the east U.S. The tribes are represented by: deer, whale, crow track?, turtle, snake, wolf, anhinga & bear. Secondine had Indian names for the guardian and all the other figures. I will ask Secondine for an interpretation of this painting. These figures were done in typical Indian form but after a year or two at K.U. he lost all the Indian style and ended with a modernistic interpretation of Indian art which destroyed him as and Indian artist. The painting was done in 1973.

751224-144

Lawrence, Douglas Co., Kansas
Dec. 24, 1975

Prepared for Big Bend National Park trip: List of materials;

- ✓ recorder and cassettes
- ✓ note books and pencils
- ✓ field note book
- ✓ rapidograph + ink
- ✓ collecting box, cotton, dry box, cornmeal
- ✓ labels for skins
- ✓ 25 traps, oatmeal
- ✓ binoculars (2)
- ✓ telescope
- ✓ camera, lens, film
- ✓ tool box.
- ✓ battery
- ✓ water battle
- ✓ bird book
- ✓ sheepskin coat
- ✓ knee boots.
- ✓ Chem. toilet
- flares light
- emergency reflectors
- ✓ car registration
- ✓ drivers license
- ✓ flash lights
- ✓ .410
- ✓ radio
- ✓ glasses
- ✓ watch
- money
- ✓ maps

751225-145

Lawrence, Douglas Co., Kansas

Dec. 25, 1975

Christmas this A.M with James R. Mary, Annette and myself at 402 Yorkshire. Took the following flash photographs:

751225-1 Presents on stereo.

751225-2 " " " close-up.

751225-3 Original painting by W.F. Chiang - Sampan & junk.

751225-4 Mobile oregama (paper Japanese paper folding).

751225-5 Stairway built this and last year.

751225-6 Family at Christmas.

751225-7 and 751225-8 - Copy Forest Service phots of Stewart Cirque, Mt. Timp. Utah. Received an enlargement of Mary, James, Annette & I taken by Chris when we were camped at Red Springs just S of Flaming Gorge area.

Last 2 days have been consistently at 34°F, cloudy and on the verge of raining or snowing. Plan to leave tomorrow morning for Big Bend National Park.

Lawrence, Douglas Co., Kansas

Dec. 26, 1975

Annette and I left Lawrence for Big Bend National Park. Left at 9404.3 mileage, temp 34. Has snowed ~~this A.M~~ all morning up to 10:00 A.M. at 10:15 sun tried to break thru clouds. Left turnpike gate (W Lawrence) at mileage 9407.8 at 11:00 A.M. 08.5 redtail. Will keep complete record of raptors on trip and other kinds of birds as indicated. 11.2 redtail. 19.2 redtail. 21.0 first crows (2), 30.3 redtail. 32.5 redtail and now going S from Topeka. 33.0 redtail. 33.8 redtail. Less snow on road going S from Topeka. Temp 31°F. 37.8 redtail. I have not seen other birds except ~~a few~~ 5 small groups of starling averaging 10 in flock. Ponds are ice and covered with snow. Snow has not covered vegetation except on some expanses with short vegetation. 48.7 redtail. 52.5 redtail. 59.5 redtail. 59.6 redtail. Only snow here is on frozen ponds. 65.0 2 redtails. 66.8 12 mourning doves and first observed so far. 69.3 marsh hawk and first meadowlark. 74.0 redtail, temp 2° C. 75.2 redtail. 77.3 redtail. 77.7 redtail. 80.8 approx 3000 starling in cattle area and first flock of this size. 93.0 American roughleg. Pond 1/3 open. 96.9 Bridge crossing over to Cattle Pens. 97.9 marsh hawk. 505.0 redtail. 13.1 redtail. 15.3 American roughleg at Cassoday. 58.4 redtail. 29.2 redtail (2). 30.1 marsh hawk.

35.6 Eldorado turnoff. 42.8 Whitewater River open. 46.3 redtail on telephone line proper, most have been in trees but occasionally on a fence post or on top of a telephone post, a few circling. 47.6 2 redtails in a tree 3 feet apart. 51.8 redtail. 52.9 redtail. Turnpike and Kellogg avenue. 54 W at 56.2 at 2:20 P.M. 61.4 Arkansas River, open, marshhawk. 62.1 redtail, 100 crows and first large flock so far, approx 30 others generally distributed. 73.3 first sparrow hawk, 75.0 redtail 80.2 redtail. 83.2 sparrow hawk. 84.2 marsh hawk. 91.1 redtail. 604.3 Oklahoma State Line. at 3:35 P.M. 27.0 redtail 31.7 Noble Co., meadowlarks now more common along side of road. at 5:15 P.M. 96501. sundown and end of raptor census. Arrived El Reno, ~~Texas~~ Okla at 75.7 at 8:30 P.M. Side trip since Noble Co. line.

El. Reno, Oklahoma

Dec. 27, 1976

Left 9757.2 at 8:40 A.M Temp. 31°F. Sky high stratus with some sunshine coming thru. 63.0 census & meadowlarks starting 2 meadowlarks, 1, 2, 1, 3, 2, 3, 4, 2, 1, 4, 3, 2, 65.0 end of meadowlark census. 67.4 S Canadian River, more frost S of river (on vegetation). 67.7 redtail, 3 cottontail roadkills across S Canadian River valley, 2 crows. 67.9 redtail. 31.3 bridge, redtail. gophers occupying 100% meridian and along right-of-way on sides of road. 1 gopher elevated 40' and pushed up dirt on an average of every 4 inches. 99.2 redtail. 12.1 bobcat roadkill. 13.6 sp. hawk. 15.1 redtail. 15.9 sp. hawk. 23.5 redtail. 24.5 marsh hawk. 26.0 last few ponds with ducks and last ones seen so far. 27.8 E Cache Creek. 28.7 sparrow hawk, mockingbird. 31.1 sp. hawk. Fort Sill entrance gate 33.0 53.1 meadowlarks common and an increase of horned larks. 57.8 Walter's (11:35 A.M). 61.6 sp. hawk, country with mesquite. 62.1 marsh hawk. meadowlark most common bird. 65.4 marsh hawk. 69.5 armadillo walked on right-of-way slope along road. 74.1 sp. hawk. Cattle creating grass hummocks in wet grasslands. 77.4 Red River, water 1/20 width of sandy river bottom. Extensive flat beyond river. 12:10 P.M now in Texas. 78.4 first cottonfields. 79.0 mile one. gophers along turnpike here but nothing compared to those between Lawton and Oklahoma City. 14.9 raccoon rd. kill. Extensive burn mesquite to right. 53.6 meadowlarks in singles at 99536.0 57.5 redtail like hawk. 58.9 Doree at 3:00 P.M. 66.5 marsh hawk. First large group of crows (200) in Texas. 70.7 redtail. 80.3 redtail, shrike. 10000.3 Stanford.

67°F at 3:56. There is an optical illusion in this country with objects being nearer than they appear. 024.6 junction 707-812. 50 meadowlarks. Some country roads have more birds, shrike a common bird along with meadowlarks. mistletoe make trees appear as if in leaves. They grow on trees in sandy soils. 31.3 increase in mourning doves which are associated with first milo fields. 33.5 sp hawk on way to Merkle. 38.0 sparrow hawk. 039.6 marsh hawk. 043.0 Highway 20, now W. at 5:10 P.M 10064 at 5:40 P.M sundown and end of census. 06x6.3 Sweatwater turnoff. 10120.1. Continued on and arrived at Sandsprings, Texas at 7:15 P.M. at 10126.

Sandsprings, Texas.

Dec. 28 1975

Left at mileage 10126 at 7:30 AM. 38°F. 137 first gulls (80) in trip. Some ducks in pond 143.3 80 Canada geese, another flock of equal size, one of 6 and one of 10. This area is associated with lakes & impounded river. 145.9 Two flocks 8, and 20 Canadian geese. 151.5 15 Canada geese and same number of crows 152.2 La Mesa Oil and cotton in this area and because of several processing plants is probably the heart of the cotton growing. Birds rare along way. Will make census for 2 miles (155.2). No birds in 3 mile. 158.8 Midland Co. 164.6 first meadowlark and first bird since mileage 155.2. 168.9 redtail. 174.5 5 great blue herons. 176.1 bridge at exit 131. airport to N. 176.6 marsh hawk. 177.3 Harris hawk? and one flying above. 178.2 marsh hawk. 179.2 striped skunk rd. kill. 185.6 Ector Co. 188.5 2 marsh hawks. 191.4 broadwing hawk size hawk. 201.2 2 marsh hawks. 206.2 beginning of yucca and more green in landscape. Greasewood? common. 208.3 Brewers blackbird. West of Penwell there are no oil wells or processing plants as far as one can see indicating we are out of the oil producing anticlines. East of here there is a continuous zone of processing plants & oil wells. This heavily used area is unusual for an otherwise uninhabited part of Texas. 214.9 20 Brewer blackbirds. 219.1 first large area of moving sands. 220.8 marsh hawk in moving sand area. This area has been made into a State Park. Brewer blackbirds increasing as we go west, and are in flocks of from 30 to 60. 225.9 exit to Monahan 9:40 A.M 226.8 leaving Monahan on high way 80 for Fort Stockton at 10:40 A.M Temp 40°F. High stratus clouds. 230.1 marsh hawk. Will keep complete census of birds across country.

232.4 meadowlark. 234.6 shrike rd. kill 235.7 shrike.
236.0 2 shrikes. 238.8 shrike. 241.9 mockingbird. 242.3
Grand Falls. mesquite have retained leave (yellow) leaves which
have been absent E of here. 245.8 Pecos River, shrike.
248.2 shrike. 248.5 shrike. 248.9 shrike. 250.1 marsh hawk.
251.3 small sparrow. Low mesquite to 5' high, artemesia like
plants. 252.5 marsh hawk. 253.4 redtail. 254.3 striped
skunk rd. kill. 254.7 shrike. 255.1 meadowlark. 255.5 striped
skunk rd. kill, marsh hawk. Shrubs are smaller & greener.
than previously observed. Some mesquite to 10' feet. Country
taking on a deep green color. 258.4 4 marsh hawks together.
259.6 3 meadowlark, shrike. 259.8 meadowlark. 260.1 shrike,
meadowlark. 26~~1~~0.7 shrike 261.1 5 meadowlarks, 2 meadow
larks. 263.9 hummocky grass meadows in damp soil created
by cattle, 265.1 meadowlark, marsh hawk. 266.5 marsh hawk.
267.7 shrike. 268.5 shrike. 270.4 shrike. 273.2 Stockton.
277.4 shrike. 278.2 shrike, 2 mourning dove. 279.2 redtail,
meadowlark. 280.4 shrike. 280.1 3 lark sparrows. 281.4 meadow
lark. 283.7 60 lark bunting. 285.3 now on straight road
across wide valley. 288.0 5 marshhawks. 290.1 sparrow hawk
feeding in middle of road. 290.5 redtail. 293.3 shrike.
294.2 redtail, shrike. 295.4 more yucca on hills than in valley
296.5 redtail. Cholla beginning. 297.6 shrike. 299.2 small
sparrow. 301.2 shrike. 302.9 porcupine rd. kill. 303.9 sign
sayp. 38 miles to ~~Marathon~~ marathon. 307.4 sage thrasher 309.0 18 horned larks.
310.0 green vegetation, juniper & small shrubs. 310.0 8 horned
larks. 311.0 2 horned larks, 1 shrike. 311.2 2 horned larks.
311.7 8 horned larks. Valley mainly in grass, shrike. Some high
palmlike tree. 385 turnoff 331.8 meadowlark & shrike.
358.9 shrike, now extensive green to E on flat benchland with slope.
Grasses to 5 feet where there is moisture. 359.9 shrike. 362.2 shrike.
362.7 shrike. 365.0 shrike. 368.0 Big Bend National Park entrance.
374.4 phoebe (Says). 376.3 redtail. 38 3.1 redtail. Passed
headquarters, another Say phoebe and continued to ~~Boquillas~~ Boquillas (Rio Grande Village).
399.4 3 mule deer.
410.3 Lower Torilla River bridge at 4:35 P.M. 421.2 end of
road at camp grounds along Rio Grand River (Rio Grande ~~Village~~ Village).
Left trailer and made trip to Boquillas Canyon. No birds
enroute. At end of road at beginning of Boquillas Canyon trail
noted 3 brown towhees, 2 rock wrens and 2 ruby kinglets.
Along trail photo 751228-1 to SW showing Rio Grande River with
large boulder in foreground and photo 751228-2 of waves advancing
against current of river from winds out of the canyon. This latter
Photo 751228-3 of mouth canyon showing Mexico side

position has several holes in solid rock — that were created by stones and circulating water although they could have been partially formed by Indians for grinding food. I had noticed some of these depressions on benches above present high water level of the river. The wind was blowing out of canyon with such force that the water was blowing into waves against the current of the river. Sands were blowing across sandbars and carrying sand into the vegetation beyond the river. Trails were 2 feet deep thru the sandy soils among cane and traveling at such a speed as to burn ones face. It was impossible to remain in these wind blown channels. Some sands had formed continuous carpet to 300' up the N side of the mouth of the canyon. Sand dunes in the valley are formed from westerly winds. Fragmites communis and giant cane filled the sides of the river and in some places was impenetrable. These dense stands of cane would offer excellent protection for small and large mammals. Peccary tracks were noted not far from here. Returned to car and on way back to trailer noted 4 scaled partridges. The regular river ~~ford~~ crossing was apparently not being used but crossing of the shallow river was farther up stream. Canoeing ~~in th~~ on this river with these winds would have been extremely difficult, especially with the driving sands. Arrived Rio Grande Village at twilight.

Rio Grande Village, Beg Bend National Park, Texas
Dec. 29, 1975

min temp 38°F, 41°F at 8:00 A.M. Bird at trailer: white-wing dove feeding on ground and about 10 in area; pyrrhuloxia common and at least 25 in area, the bill is most characteristic; black-throated sparrow, observed only four on sidehill; song sparrow, 3 in cane; rufous sparrow, 4 on sidehill; loggerhead shrike, 2 in area; 4 meadowlark feeding in field. Peccary tracks among brush at mouth of canyon east of trailer. Made circuit of Beg Bend National Park leaving at 10:00 AM at mileage 10428.2. Snow 1/2 way down mountains to E. at 434.2 towards panther junction park headquarters noted a coyote along side of road approx 40' away. It was on bare soils among desert cacti and low shrubs and was very conspicuous. It remain for a few moments then crossed road back of car where it remained in area. The coyote was not afraid but curious of us. at 440.5 photo 751229-1 of Chisos mountains to W showing low line of new snow. Prickly pear in foreground. It was in such an area as the foreground that we observed the coyote and the mule deer the previous day. This condition of snow in

mountains is an unusual occurrence for this area.
Photo 751229-2 and 751229-2a of N Rod of Chisos mountains showing snow line.
Prickly pear in foreground. 444.2 2 rovers depth of
snow here approx 2 inches on ground. 448.4 Panther Junction
Park Headquarters. Snow 2 inches. ~~Cont~~ Photos no
751229-3 and 751229-4 from headquarters. It appears that
for equal elevations they received more snow on the NE exposure
than on east side of mountains. Continued W and at
451.4 at turnoff to The Basin but road not open because of snow.
so after taking photo 751229-5 of Chisos Mt (N side) to south
with snow in foreground, Continued W. at 453.8 6 scaled
quail. 456.4 shrike. out of snow at base of hill. 264.2
mockingbird, we are already on road to S along W side of Chisos
mountains. Photo 751229-6 to east along a ridge some 1 mi
N of the Volcanic dike overlook. This spot of photo is 467.4.
Photo 751229-7 of Blue Creek Ranch overlook to NE with Chalco,
cacti and mts beyond. Blue Creek to right. at 469.1 at
Sotol Vista Overlook photo 751229-8 to W with sotal in foreground.
477.0 sparrow hawk. 472.0 sage thrasher. 475.3 photo
751229-9 to E with white and black stone & mts to NE. 482.6
Volcanic tuft photo 751229-10. ~~Photo~~ 482.6 of white volcanic
tuft and black residual rocks on slope and at base. This area
captured in photo 751229-11 and 751229-12. at 484.2 photo
751229-13 showing volcanic plugs surrounded by volcanic tuft.
Continued to Castalon, thence W to Santa Elena Canyon.
at mouth of Canyon on sands and gravels noted a black phoebe. Took
several photos here 20 751229-14 from mouth of Canyon to SE of Rio Grande River
and spot of sunlight. Photo 751229-15 of Santa Elena Canyon from
mouth. Photo 751229-16 at beginning of trail. Photo 751229-17
from top of trail to SE along Rio Grande River. This is a rather
impressive canyon. Continued N towards Maverick starting at 493.2
Photo 751229-17a of Annette at pioneer home somewhere between Santa Elena and Maverick
503.3 road runner crossed road. 505.4 Maverick on main road
Photo 751229-18
512.2 main Chisos Mt to SE. 513.3 passing rd that turns to S,
522.5 S on road to The Basin. Continued to The Basin, enroute
passed thru beautiful section of greens from rock & Conifers against
a blanket of white snow, but no sun for photographs. Continued
to basin. and as far as I am concerned the buildings can be
eliminated and the area turned back to wilderness. Photo
751229-19 of grass in foreground and mts to E. 751229-20 and
751229-21 in same area. Photo 751229-22 of cacti with snow

751229-23-24-25 of mt east of lodge in "the Basin". ~~[illegible]~~ photo 751229-26
Photo 751229-27 of mts to E & NE with sunlight and reddish rocks.
Returned to Panther Junction at mileage 5 38.1, thence to
Rio Grande Village at 10559.1 at 7:30 P.M or 130.9 miles trip today
in the park. Did not see any wildlife on return from Panther
Junction. Did not keep complete list of birds from Santa Elena
Canyon but did record the following. 1 shrike, 4 sage thrashers,
small sparrows, one flock of 22 birds.

Rio Grande Village, Big Bend National Park, Texas
Dec. 30, 1975

min. temp last night 19°F. Sky clear. Left Rio Grande Village
to continue trip E & S across Texas but in the meantime will cross
Big Bend, thence N to Marathon then east. Mileage at above camp
10559.1. Heard coyotes last night. Before departing went to Rio
Grande and took photo 751230-1 to W above the beaver pond.
At this time of morning the river was steaming. A raven
flew by and a nutria swam in the river. Left camp at 9:00
AM. on road to Nat. Park. Adm building. At 570.1 6 small
birds. 570.7 18 more small birds in one flock. The snow
is still in protected areas and N slopes. 572.0 20 small
birds. 573.7 Hugout Wells turnoff, 15 more of these small
sparrowlike birds. 579.7 Coyote along side of road 30' away
it picked up a stick and played with it for about 10 seconds and
then ~~[illegible]~~ walked away leisurely carrying the two foot long stick
in its mouth. 579.8 Nat. Park Headquarters. At Head-
quarters made telephoto no 751230-2 and (reguear) 3 of mountains to
the SSW showing mts & vegetation. ~~Some snow in protected~~
places. Left 10579.9 at 11:00 AM and continued N.
584.3 meadowlark. Fossil Bed Site at 588.3. From here
made photos 751230-4 of mountains to the S and 751230-5
to E across a small sloping valley. Left and at 592.5 a
pyrrhuloxia. 607.3 N boundary of Park, one mourning dove
here. No clouds in sky today. Continues N. 610.8 pyrrhuloxia
will count shrikes from N Park boundary to Marathon.
615.9 Brewers blackbird. 638.5 marshhawk. 645.8 Marathon
Shrike count of above was 11 birds. Last night the temperature
at Marathon was 11°F but they did not receive snow. Left
at 644.8 at 12:40 P.M. As is the usual policy, will keep list

of all raptores on this trip. For route covered see map. 655.2 ferruginous roughleg hawk. 658.0 ferruginous roughleg, 660.1 redtail. 662.3 photo of roadcut on highway 90. no 751230-6 showing steeply dipping strata. 679.2 hawk. 685.2 redtail. 686.7 redtail. 702.1 hog-nosed skunk, 728.9 sparrow hawk. 738.2 entire area in Gutierrezia underlain by Cretaceous. 802.3 redtail at east end of dam. Del Rio at 814.0. Boattail grackle and common grackle, 822.1 first cardinal. 826.0 first black vulture. 834.3 2 black vultures. 834.6 2 black vultures. 844.6 a white-backed skunk road kill, and first palm trees. 847.8 first kingfisher. Quemada at mileage 849.3 at 5:35 P.M Eagle Pass 6:00 P.M. after Del Rio. More shrubs and increase of birds Good flocks of boattail grackles & common grackles. A decided increase in mourning doves and first ones observed since marathon! This evening visited Piedras Negra on the Mexican side of Rio Grande River. Camped on city lake west side east of Eagle Pass.

Eagle Pass, Texas.

Dec. 31, 1975

Min temp. 32°F. One dead coot on shore. At least 30 boattail grackles and as many Brewer's Blackbirds. Visited again this A.M Piedras Negros in Mexico. This is the most convenient city to shop in as one can park on American side and walk across for 5¢ and when returning only 1¢ per person. Left on highway 277 to E. at 10877.8 mileage at Eagle Pass. Left 2:30. meadowlark most common bird and then 1 every 2 miles. 895.1 sparrow hawk 896.1 sparrow hawk. Census of meadowlarks and all kinds of birds at 898.0. meadowlark, 909.1 3 meadowlarks, 907.8 3 meadowlarks, 908.0 sparrow hawk and end of census. Area of high schrubs, grass and high trees. 910.6 redtail like. 912.2 hawk, redtail in size 937.8 Catarina. Continued on to Falcon State Park. Recorder malfunctioned to Falcon State Park

Transferred to 1976 journal

Falcon State Park, Texas

Jan 1, 1976 min temp last night 48°F

Mileage 11079.5 at camp in Falcon State Park. Birds in area. Evg sp. meadowlark, pair Cactus wren came right into camp and fed on ground, great blue heron, white crowned sparrow, myrtle warbler, waterpipit, Wilson Warbler and boat-tailed grackle. These birds mainly around camp grounds, no clouds in sky but considerable moisture in air. mockingbird and warblers foraging on insects. One mockingbird regurgitated a seed, worked it over in its bill and then swallowed it again. Tropical flycatcher