

***JOURNAL 1978***

*JAMES W. BEE*

1978

Grand Isle, 5 New Orleans, Louisiana. (State Park)

Jan. 1, 1978

mileage here 82733.0. At 9:00 A.M. went down to beach and observed approx. 20 atlantic bottle-nosed dolphin? moving as singles, two or three to the east. They acted more like whales than dolphins, especially as concerns the slow movement when the animal surfaced. They were confined to within the first breaker and  $\frac{1}{10}$  mile beyond. Those working near shore exposed more of the dorsal fin than those in deeper water and also produced more splashing of the tail. Occasionally the entire head would be exposed in profile as a rounded anterior head. The tail movement was vigorous and sent water splashing in one direction as if attempting to left fish out of the water. One such fish was seen flying thru the air from the tail region to the head of the dolphin. Frequently they moved rapidly in a straight course but more frequently in a zigzag pattern. One travelled at great speed on and with the crest of an incoming wave. The most noticeable sign was the splashing of the tail which was held above the water. The action continued for about 20 minutes as they slowly but progressively moved toward the east. Dorsal fin upright and did not lean posteriorly. Tail fluke notched, ridge above mouth. Color grayish black. Dorsal fin about  $\frac{1}{2}$  way between head and tail. Twenty four black skimmer flew by in one flock. All birds seemed to be moving east including the laughing gull, ring-billed and herring gull. Sanderling most common sandpiper, but noted one pair of <sup>ruddy</sup> turnstone. Brown pelicans flew east at about one every 5 minutes. Cormorant fewer in number. Because of recent rains, all sands damp with standing water on beach. One cannot get used to this area which is far removed from high country. The road leading to Grand Isle seems to be only 2 or 3 feet above the surrounding water and only a slight increase in water level would inundate the road and escape route. Since 9:00 A.M. there has been a dramatic increase of birds flying E over the ocean including the above named birds and the tern. It is now 10:30 A.M. From camp counted the birds that past east along the ocean.

in a two minute period: gull (all gulls ~~might be~~ unless otherwise specified) gull, gull, gull, gull, gull, gull, gull, gull, gull, gull, laughing gull, gull, 4 gulls, gull, gull, 2 gulls, 4 gulls, 3 gulls, gull, gull, 2 gulls, 4 gulls, 2 gulls, 2 gulls, gull, Forrester tern, gull, gull, brown pelican, cormorant, gull, gull. Noted 300 gulls following an oil boat thru channel east of camp and out into the ocean. Some returned to shore. Boats have made no provision to reduce noise of motors. Common egret in area. 3 willets inland. Left Grande Isle <sup>Comp</sup> at 10:45 AM. Fog lifting. At 746.0 500 white pelicans in a lake in extensive marsh. Also kingfisher and marsh hawk. Few great blue herons in this flat, extensive marshland. Should be more birds. No ducks! 757.4 Crossing La Fourche River. 780101-1  
 Kitelike bird all black. Photo ~~Ch~~ Ceramic Cemetery ~~70~~ <sup>772</sup> at Galliano. Cemeteries in this delta area are all above ground and produce a striking white contrast to the surrounding country. Returned on E side of river at 772.6 785.7 redtail hawk. 788.9 8 turkey vultures. 805.7 redtail. Continued N on highway 1 to Napoleonville, Belle Rose, Donaldsonville, then retraced to highway 70. Visited several antebellum houses in area - Maywood - privately owned and kept up as a public museum, kept in fairly good condition - furnished in period pieces of Oak Lawn Manor - beautifully restored and furnished and lived in by the Thomson family at present - the first two houses most elegant in design. Continued to Morgan City. This area has many bayous. at <sup>77</sup> each entrance to Morgan City stayed a trailer camp at mileage 82902.

Morgan City, Louisiana.

Jan 2, 1978

Left at 82902.4. min. temp last night 37°F. occasional rain. 917.1 sparrow hawk. 918.3 <sup>redtail</sup> hawk. 918.6 sparrow hawk. 919.3 Verdenville. 922.7 sp. hawk. Temp 38°F. at 11:00 AM. 976.7 sp. hawk. on highway 14. Have seen three others between here and New Iberia. 980.2 sp. hawk. Continued on 82, thence to Pecan Island where we camped in the parking lot of a Catholic Church.

Pecan Island, Louisiana

Jan 3, 1978

Sun up 7:05 A.M. min. temp 28°F, 30° at 7:00. Left at mileage 83025.3

033.2 sp. hawk. 036.0 Anhinga, 2 loat and other ducks. 039.6 drawbridge over a canal. will keep a complete census for a short while. time 8:30 A.M. Country marshland, occasional shrub and open of water. 8 boat-tailed grackles, 2 boat-tail, boattail, loat, boat-tail, boat-tail, Kingfisher. boattail, 2 boattails. boattail, duck, boattail, 043.2 Grand Chenier To right, boat-tail. 044.4 now in area of live oak, boattail, 2 redwings. Area not marshland but cultivated areas, boattail, not many birds thru the town area. 048.3 Rockefeller<sup>Foundation</sup> Refuge, boattail, 10 redwings, 2 common egrets. 050.0 Lake full of shorebirds. and end of complete census. 060.4 mermentau river bridge, some beaver-tailed cactus along road. 063.5 redtail, other birds are gulls, terns, mockingbird, cattle egret, common egret, snowy egret, spoonbill duck, starling, great blue heron, 065.2 redtail, ibis. 070.5 redtail, occasional shrike. 084.1 Free ferry at Cameron at 9:40 A.M first instance of brush or marsh burning so far, redtail. 088.4 redtail, swallow (tree or n. violet green) and are the first ones along coast and then 4 in one mile. Swallows increasing in number and now 3 or 4 per 1/10 mile. These swallows are associated with the immediate lands bordering the gulf. Earlier this morning ~~we~~ we were more inland and did not see swallows. 093.0 Holly Beach, surf as low as I have ever seen along gulf, only 2, <sup>small</sup> breaking crests and these 10-15 feet from shore. water murky from freshwater of mainland. Shrimp boats (15) fishing in gulf. <sup>Brownish</sup> smoke still in sky above and continues SW as far as I can see. This smoke from fires noted at (084.1). Swallows still in sky and no birds but over gulf except an occasional flock of ducks. 1 kielder + gull in one mile of shoreline. Occasionally there will be six seconds or more in which there will not be any surf action in restricted areas but only smooth water. I have never seen this before. 097.5 road follows along beach, redtail, sp. hawk. Gulf crowded with fishing vessels. Can see 15 in 10° of arc. Have identified swallows as tree swallows with purple color. Fishing boats + oil rigs common. 104.6 sp. hawk, 106.4 sp. hawk. No crows so far. 115.4 will take complete census for a while. Kingfisher, duck, duck, water channels on both sides of road. and flat marshland beyond, with open water (small lakes and ponds) here and there. Kingfisher, 119.7 drawing bridge over channel leading into Sabine Lake. shrike, 8 gulls, kielder, 2 boattails, sp. hawk, kielder, shrike. 127.6 ramp of bridge at Port Arthur and end of census. 143.8 sp. hawk 151.4 sp. hawk. 152.4 2 sparrow hawks.

marshland inland from beach is flat with grasses and sedge all about the same height, and extends  $\pi$  as far as I eye can see. 154.6 sp. hawk. <sup>Sea Rim Sea Rim</sup> ~~Sea Rim~~ State Park 155.4 surf higher here than in Louisiana. with ~~155.0~~ surf 10 crests and considerably more noise, water muddy. On beach for a period of 20 minutes watch nothing passed by and only three birds present, snowy plover, black-bellied plover and a sanderling. As one surveys up and down beach with 10x binoculars one can see 6 gulls, 20 shorebirds mainly small. At 155.6 on beach will make census to west as we travel on beach at approx 25 miles per hour. (1:00 P.M.) sanderling, black-bellied plover, gull, sanderling, sanderling, sanderling, black-bellied plover, sanderling, sanderling, sanderling, sanderling, ring-billed gull, black-bellied plover. Most birds in swadows of washed up debris, fewer on sandy & pebble beach toward water, sanderling, sanderling, sanderling, sanderling, black-bellied plover, gull 157.1 end of census at fence guard and will now return to main road. In this 1.5 miles there were 12 sanderling, 4 black-bellied plovers, 3 gulls (ring-bills). On way back to headquarters noted sparrow hawk. At 161.1 rest 20 miles warning of debris on highway from recent flooding. sparrow hawk. First meadowlark in a long while, also marsh hawk. 165.0 sparrow hawk. 167.7 sparrow hawk. This road travels along <sup>north</sup> ~~east~~ side sandunes of beach. Cannot see beach except thru blowouts or where drainages pass thru sandune. Can hear beach surf however. 172.0 sp. hawk. This highway needs a general cleanup of made deposited trash. Mockingbird. 173.7 sp. hawk. 175.9 striped skunk road kill. Few redwings and shrikes but very few in fact only 1 redwing & 5 shrikes since State Park. 176.6 sparrow hawk, meadowlarks about 1 every 3 miles. 177.1 approx. 500 redwings, first killdeer for some time. 178.7 sp. hawk. 178.8 sp. hawk. 179.2 redtail. 179.7 sp. hawk. 181.3 Bournmount. many oil wells, 5 horned larks. Gulf still to immediate left. 184.7 sp. hawk. 185.1 sp. hawk and redtail. Have since <sup>seen 5 killdeer</sup> Sea Rim State Park. Now getting into summer homes along beach. 187.7 Dilchrist at Post office. 189.3 sp. hawk 191.8 sp. hawk, redtail, sp. hawk. 192.4 sp. hawk. 193.0 redtail. 200.4 sp. hawk. fewer along here because of cottages. 202.7 sp. hawk 203.8 sp. hawk. 203.9 sp. hawk. 205.4 marsh hawk. 205.5 sp. hawk. 206.2 sp. hawk. 207.9 Common egret, gull. 208.5 ferry. In bay to right 3 white pelicans and 2 cormorants fishing in close formation. one or two gulls only flying around ferry terminal. Ferry approach is followed by 20 gulls. On ferry crossing to Galveston a sanderling alighted on rail of ferry and then dropped down on floor

of ferry and fed as it moved between the cars as the ferry was moving. On way across took 5 photographs of the laughing gull (1000 sec.) nos. 780103-1, 780103-2, 780103-3, 780103-4, 780103-5. Killdeer frequently seen on short grasses areas along dikes or <sup>golf courses</sup> elsewhere across the country. 226.9 sp. hawk. 228.8 sp. hawk. 229.1 sp. hawk. 230.9 sp. hawk. 231.6 sp. hawk. 233.8 sp. hawk. 237.9 top of county toll bridge. at 4:15 P.M. 340.0 sp. hawk. There are no swallows along here. 241.1 sp. hawk. 242.8 sp hawk 247.6 sp. hawk. 248.0 sp. hawk. 249.5 marsh-hawk, sp. hawk. 251.7 top of <sup>waterways</sup> intracoastal bridge at Freeport. 255.6 sp. hawk. 257.6 redtail. 281.7 Rio Brazos River. Continued to Brazoria, Cedar Lane, Wadsworth, thence S to Matagorda beach on the gulf arriving there at mileage 83333.3. at 7:45 P.M.

Matagorda Beach on the gulf, Texas.  
~~unpublished~~ ~~in~~ ~~the~~ ~~gulf~~, ~~unpublished~~  
 Jan 4, 1978

Checked birds in bay to W and along beach to S and included: mourning <sup>marsh hawk,</sup> dove, meadowlark, common egret, 15 sandpiper, 4 blackbellied plover, 4 willet, 2 great blue heron, 18 Bonaparte gulls feeding over surf near shore, 42 crows, 5 Herring gulls, 10 laughing gulls, 5 ring-billed gulls, 2 cormorants, 1 turkey vulture near Matagorda City. shrike. Min temp last night 49°F. Present temp 60°F this A.M. Left and made following observations of birds on return to highway 521: 10 great blue heron, mainly on east side of road in flat marshland & water as far as one can see, 80 boat-tailed grackles, 3 pied-billed grebes, 8 common egrets, 4 snowy egrets, 3 kingfishers, 20 sparrow hawks, 4 red tail hawks, 2 meadowlarks, 4 shrikes, 10 ring-billed gulls, <sup>3000 Canadian geese in field.</sup> arrive highway 521 at 349.8. 350.2 sp. hawk. 352.2 sp. hawk. 352.4 marsh hawk. 352.8 sp. hawk. 353.9 Colorado River, <sup>green in color</sup> sp. hawk. In recollection on trip have not seen 2 sparrow hawk closer than 20-30 feet. 354.5 sp. hawk. 355.0 3 crows, these birds are few and far between in this country. also vulture are scarce. 357.2 redtail. 361.2 sp. hawk. 362.2 redtail. 363.3 junction <sup>1095</sup> ~~to~~ and ~~45~~ 365.2 sp. hawk. 367.5 sp. hawk. 367.6 sp. hawk 367.7 6 turkey vultures along drainage with cover of live oak trees. 368.6 junction 521 and 35. Will keep track of all birds for a few miles. sp. hawk, meadowlark, turkey vulture, killdeer, turkey vulture, shrike, turkey vulture, shrike, turkey vulture, sp. hawk, 2 shrikes, some starling and English sparrows especially near houses, 370.5 killdeer, turkey vulture, shrike, 2 meadow larks. 372.1 sp. hawk, shrike, kingfisher, 2 meadowlark 373.6 Palacios. 376.5 marsh hawk, sparrow hawk. 377.6 sp. hawk. 378.0 sp. hawk 379.4 sp. hawk. 380.9 sp. hawk, 381.2 sparrow hawk. 381.9 sp. hawk, killdeer on shoulder of road. 382.3 sp. hawk. 383.6 redtail.

383.7 redtail on fence post 20' from road. 384.8 160 sandhill cranes and 8 Canada geese and 122 boat-tailed grackles associated with the sandhill cranes. Marsh hawk and 2 ring-billed gulls also in same area. The sandhill cranes (200' from road) were feeding in a field of harvested sugar cane, recently plowed with some new green grass showing thru. The grackles were feeding among the cranes but independently of the cranes. 12 other Canada geese flew by but did not ~~land~~ alight. Most of the cranes were in one group but 3 were feeding ~~to~~ 1/10 miles beyond and another single 4/10 mile from main group. Two cranes extended their necks straight up perpendicularly, call twice and then one of the two charged the other which gave way to the aggressor. (Time 10:45, overcast irregular clouds, temp 60°F). This area is NE of a large lake <sup>first</sup> ~~point~~ <sup>young west and</sup> E of Comfort. 387.9 in middle of Carancahua Bay. Shrikes 2-3 times as numerous as sparrow hawks. 389.5 junction 172. 391.7 sp. hawk. 392.1 sp. hawk. 393.5 sp. hawk. 395.6 redtail. 398.7 beginning of Lavaca Bay bridge. No birds observed across this bridge except 2 ring-billed gulls on west side of bridge. 408.8 sp. hawk. 409.3 sp. hawk. 410.4 redtail. 412.9 2 sparrow hawks separated by 2 telephone poles. 413.3 sp. hawk. 415.5 Victoria Borge Canal, Turkey vulture, sp. hawk, 417.3 sp. hawk, 418.0 sp. hawk, redtail. 419.6 red tail, redtail, sp. hawk. 422.3 Tivoli, continuing on highway 35. 424.0 turning left off 35 to Auswell. Different birds to Auswell are meadowlark, redwings, native red-head grass for first time, 426.5 sp. hawk, grackles, killdeer, 8000 red-wing blackbirds at 428.5 Auswell. The large flocks <sup>in the past</sup> have always been noted at this place which is an isolated spot in an area of complete cultivation. 428.6 middle of town. 430.1 sp. hawk. 431.0 sp. hawk. 431.7 sp. hawk. 432.2 flock 10 snow geese. 433.9 2 turkey vultures. 434.7 gopher diggings ~~abundant~~ numerous in sand for first time. 435.4 sp. hawk. 435.5 sp. hawk. 435.9 gates to Aransas National Wildlife Refuge, and will now keep complete census of birds and mammals thru the park. 2 meadowlarks at gates. At visitors Center, sparrow hawk. 436.3 at Visitor Center, Turkey vulture. 436.4 Coat, Coat, 2 coats. 436.5 5 coats. 437.0 Common egret and great blue heron, 2 great blue herons, and ducks in bay, green heron, ring-billed gull. 437.4 great blue heron and approx. 20 ducks distributed along the beach. 37.6 great blue heron. 37.9 Youth Environmental training area, many gophers on right-of-way and ditch beyond. 38.2 one-way enters this point, duck (Mallard) 38.4 5 robins, 10 turkey vultures in tree, sp. hawk, common egret. 38.5 15 15 turkey vulture, 2 black vultures, 2 deer (white-tails), 38.6 bufflehead. 38.7 photo 781204-1 of wild turkey, <sup>5</sup> in the group. In same area

20 grackles, 20 robins, 10 turkey vultures, 4 black vultures, mallard,  
 killdeer. 38.8 2 deer. 38.9 2 greater yellowlegs. 39.0 2 deer.  
 sp. hawk. 39.1 ♂ deer, some trees in yellow. (80% green). 39.2  
 Dagger Point trail turnoff, turkey vulture, most of the dead trees  
 are near the meadows. 40.1 2 deer, one of which is small. They  
 travel as if their feet were sore. 40.4 Jones Lake, mockingbird.  
 40.6 3 mockingbirds, one flying up into air for insects? 40.7  
 3 mockingbirds. 41.0 Overlook Tower. Recommend they  
 should place adaptors for telescopes on tower platform so  
 people can use their scopes. On tower from 1:30 to 2:30 P.M.  
 and observed 11 deer to S, 15 to NE. One family of 1 adult &  
 3 young. One adult raccoon and 3 young crossed mud flat to  
 W, waded in shallow water and then swam the last 30' to N side  
 of the Channel-boy area. The young preceded the adult. 5  
 turkey vulture, one family 2 adults and young and another  
 group of 2 adults, whooping cranes. 7 roseate spoonbills, 11  
 snow geese, 4 Canada geese, 8 godwit, <sup>4 buffleheads,</sup> 8 oovet, 2 mallards,  
 2 green-winged teal, 9 white pelican and 40 more S of intra-  
 coastal canal, 2 Louisiana heron, 16 great blue heron, 5 common  
 egret, 3 gulls, <sup>2 carpenter terns,</sup> 30 ducks sp. ? <sup>3 for spoonbills below tower.</sup> It is my impression that  
 there is neither the number or variety of birds this year  
 compared to previous visits. I would recommend someone  
 be station here as interpreter. Also remove posts in marsh  
 and unsightly culvert along intracoastal waterway, in other words  
 make the area as natural as possible even though it is a  
 management area. † Left tower at 2:30 P.M. 41.4 2 cardinals.  
 great blue heron, 4 mallards, 20 teal. 41.8 turkey vulture. Raining  
 gently, turkey vulture. 42.0 shrike. 42.5 wren. 42.8  
 lateral entry road, 3 deer. 43.7 3 turkey vultures, sp. hawk,  
 mockingbird. 43.9 burnt area to right completely covered with  
 gopher diggings. 44.1 turkey vulture. 44.3 dry pond. 44.4 shrike.  
 Many ponds & roadside ditches are dry which normally are  
 support water. 44.5 turkey vulture. 44.7 deer. 45.2 dowitcher,  
 killdeer. 45.6 mockingbird. 45.8 2 deer. 46.1 sp. hawk. 46.2  
 killdeer. 46.3 6 mallards. 46.4 2 yellowlegs (one the greater  
 and the other the lesser), 2 mallards, common egret (largest I have  
 ever observed and may be an albino great blue). 46.4 turkey  
 vulture. 46.8 2 lesser yellowlegs, mallard. 46.9 2 meadowlark,  
 sp. hawk. no wildlife is using the roadway. 47.4 3 deer.  
 remained on side of road to within 30 feet. 47.8 pintail. 47.9  
 female scoup. 48.1 sp. hawk. 48.2 killdeer. 48.5 2 turkey vultures



in road, one left at approx. 25'. 48.6 Heritage Trail, Killdeer.  
 48.9 turkey vulture. all birds in census are near the road 150' each  
 side except vultures. 49.0 shrike, robin, 5 robins. 49.7 2 turkey  
 vultures. 49.9 mockingbird. 50.1 back to main road at 3:30 P.M.  
 will not record back to entrance except in marsh area S of vectors  
 Center. 51.0 2 deer. 51.2 3 roseate spoonbills. 52.1 2 black-  
 crowned night heron, black duck, nutria, shoveller, <sup>blue-wing teal,</sup> common  
 gallinule, 5 redwing blackbirds, cow hear rails, 2 mallards. The  
 last group of birds in the Thomas Slough. Gates at 52.3 at 4:30 P.M.  
 and end of complete census. 452.9 sp. hawk. 454.1 white-tailed  
 kite. It circled field and hovered twice, then flew directly over-  
 head and flew 150' and hovered again at about 35' high. It dropped  
 to ground with wings high which gave it a parachute effect in  
 the descent. It touched ground but did not capture its prey.  
 It then flew W for 7/10 mi & hovered again. This bird was received  
 both by Annette and I and identification is positive. Ordinarily  
 this bird is found farther S in Texas and then is considered  
 rare. 46.2 sparrow hawk, meadowlarks occur about 2 per mile.  
 and there are some flocks of boat-tail grackles of 50 to 200. Country  
 flat and all under cultivation, plowed but no evidence of new  
 crops. 464.3 marsh hawk. 465.0 sparrow hawk. 469.3 sp. hawk.  
 469.9 sp. hawk. 470.7 sp. hawk. 471.2 2 redtails 1 foot apart. 471.5  
 sp. hawk. 471.8 sp. hawk. 471.9 sp. hawk. 475.1 3 long-billed  
 curlew along right-of-way, along highway 35, 476.3 sp. hawk, more  
 & more common egret as we near Goose Island. 477.4 sp. hawk,  
 will count bird <sup>beginning at</sup> 477.8 common egret, snowy egret, sp. hawk, end of  
 2 miles. There were 5 times this number in the previous 2 miles.  
 480.0 <sup>now</sup> raining. Lake to left covered with ducks. 484.5 turnoff to  
 Sea Gum Resort. Arrived Goose Island 83484.1 at 5:40 P.M. Camped  
 at same shelter <sup>(15)</sup> on beach as previous visit here. On arrival  
 water at high tide and beach restricted but observed the following  
 birds: great blue heron on piling to W., 4 loot, 15 lesser scaup (one  
 group 10, one group 5). To N at angle of bay all  
 the shorebirds were crowded in angle of the bay on  
 the beach and included, willet, 8 ruddy turnstones,  
 4 sanderling, 2 killdeer. When tide is low there  
 are more birds.

Goose Island State Park, Texas

Jan 5, 1978

min temp last night 55°F.  
 no wind, lake smooth.

Temp. 9:00 AM 62°F. Fog just starting to lift.  
 Birds in area (from camp) are killdeer,

ruddy turnstones, redwing blackbirds, meadowlark, great blue heron,  
 sandpiper, willet, western & least sandpiper, ring-billed gull, Forster  
 Tern, Coot, <sup>wilson's snipe</sup> song sparrow, laughing gull, Herring gull, spotted  
 sandpiper, dowitcher, dunlin, I have noticed that when  
 individuals of the same species are feeding on the beach and in  
 the water along the beach, the ones in the water appear larger.  
 Ruddy turnstones turn stones over and when excavating do so by  
 a shoveling effect up and out. Ruddy turnstones are replaced  
 by willet at these excavated holes. Also meadowlarks and  
 dowitcher also displace ruddy turnstones at the excavating sites.  
 These pits are being developed in beach debris at the angle of the  
 bay and then perched by the larger birds for further excavation.  
 The sandpipers work over material that are excavated by other  
 birds & thrown beyond the pit. Ruddy turnstones displace sandpipers,  
 and at times the original excavators the ruddy turnstones are  
 excluded from all the holes. Coot displaces all shorebirds.  
 Sandpiper fight each other by tramping one another on the back,  
 holding wing or feather in bill. There is considerable crouching  
 and 4 inch staddoffs in sandpiper as well as chasing each other  
 either on the ground or in flight. Pintails, scaup & redheads  
 in open water in bay. Caspian tern occasionally rests on  
 sandbar in bay along with Herring & ring-billed gulls. Noted a red-  
 wing blackbird displace a golden plover. With smooth lake  
 and foggy day the ducks seem to be swimming in the sky. Killdeer  
 walked thru the angle of the bay that was being excavated and  
 did not seem to be interested in the excavation made by the  
 ruddy turnstones & used by the other kinds of birds mentioned.  
 Kingfisher occasionally fly up & down the beach area. Forster  
 Tern and pipit in area. Meadowlark uses pits. Birds used  
 the excavated area to at least 12:30. Temp 1:00 72°F. and expected  
 to go to 82°F. Spent the afternoon at Felton and Rockport and visited  
 Floyd Bailey (Dennis' father & mother) at Felton. Checked birds  
 at refuge and observed mallards, pintails, scaup, coot, redheads,  
 Cinnamon teal, pied-billed grebe, buffleheads, goldeneyes, great blue  
 herons, Louisiana heron, herring, ring-billed laughing gulls, long-billed  
 curlew, and perhaps others that I can not recall (recorder went out  
 at this place). Checked boats & returned to Goose Island.

Goose Island State Park, Texas

Jan 6, 1978

Min. temp last night 54°F. Expected to go into the 80°F today but  
 at 9:00 A.M., foggy and cool.

Had breakfast at Dauleys and then continued on to Port Aransas  
 and at mileage 571.3<sup>(11:00 A.M.)</sup> at breakwater started to keep complete census  
<sup>19:30 AM</sup> of birds as we drove along the beach at about 100 or less feet from  
 the edge of the water on the beach: 2 ring-billed gulls, willet,  
 laughing gull, l. gull, 4 l. gulls, ringbill, 4 l. gulls, 2 ringbills,  
 3 herring gulls, l. gull, 3 ringbills, ringbill, 2 l. gulls, l. gull,  
 l. gull, 3 l. gulls, ringbill, willet, 2 sanderling, sanderling, ringbill,  
 willet, ringbill, willet (last Willets have been on upper part of beach)  
 ringbill, 20 ringbills, 15 l. gulls, l. gull, ringbill, 2 laughing, ringbill,  
 willet, ringbill, 7 laughing gulls, 2 ringbills, ringbills, ringbill,  
 willet, willet, sanderling, sanderling, 6 willet, l. gull, sanderling,  
 2 ringbills, sanderling, laughing gull, 2 willets, herring gull, willet,  
 sanderling, l. gull, 5 l. gull, ringbill, l. gull, 2 ringbills, 15 Caspian  
 terns, ringbill, ringbill, willet, herring gull & 5 ringbills, 4 Caspian,  
 willet, herring gull, 3 ringbills, willet, ringbill, sanderling, ringbill,  
 sanderling, ringbill, willet, sanderling, ringbill Charming sanderling,  
 ringbill, ringbill, willet, willet, ringbill, herring, sanderling,  
 3 herring, ringbill, 2 l. gulls, laughing gulls, sanderling, ringbill,  
 laughing, willet, laughing, willet, 10 laughing gulls, 2 ringbills,  
 willet, herring gull, 1 legged sanderling, sanderling, willet, ringbill,  
 willet, black-bellied plover, sanderling, ringbill, 2 sanderling, l. gull,  
 willet, ringbill, willet, sanderling, willet, Caspian tern, 2 l. gulls,  
 willet, (surf as high as I have seen along coast), sanderling (1/10 mile or so  
 shorebirds), willet, sanderling, ringbill, l. gull, willet, ringbill, 2 ringbill,  
 5 Caspian terns, 2 ringbills, ringbill, sanderling, ringbill, willet,  
 ringbill & sanderling, sanderling, l. gull, willet, 2 sanderlings,  
 great blue heron, sanderling, 5 Caspian terns, willet, sanderling,  
 sanderling, ringbill, ringbill, sanderling, sanderling, sanderling,  
 herring, ringbill, great blue heron, Forster tern, l. gull, sanderling, ringbill,  
 herring, 2 ringbills, sanderling, willet, 6 l. gull, ringbill & herring, ringbill,  
 sanderling, 2 willets, ringbill, herring, ringbill, sanderling, willet, sanderling,  
 ringbill, dunlin (2), ringbill, 2 herring, ringbill, 2 laughing gulls,  
 ringbill, sanderling, sanderling, sanderling, willet, 2 willets, 8 ringbills,  
 herring, 5 l. gulls, willet, sanderling, sanderling, herring, willet,  
 ringbill, sanderling, sanderling, ringbill, ringbill, willet, ringbill, gull-  
 billed tern, willet, sanderling, gull-billed tern, l. gull (retained black  
 head), herring, ringbill, sanderling, sanderling, sanderling, willet,  
 ringbill. (11:30 A.M.) (at 15 mi. access sign), ringbill, great blue heron  
 (on top sanddune to N), sanderling, great blue heron, ring-bill, willet,  
 5 l. gulls, ringbill, sanderling, ringbill, sanderling, sanderling, willet,

ringbill, Forster tern, 2 ringbills, sanderling, great blue heron (this beach is very flat and 150' wide and gradu into primary dunes, <sup>high 30' blowout dune</sup> and one or two beyond, the beach is hard up to first row of sandunes and can can travel from water to dunes but more sandy near first dunes), sanderling, willet, sanderling, ringbill, (578.2 sanderling barge or fishing boat), willet, ringbill, willet, sanderling (willetts generally in twos or pairs or threes, sanderling generally distributed, gulls generally in group) sanderling, ringbill, gull-billed tern (3), willet, 2 ringbills, ringbill, willet, sanderling, ringbill, sanderling, willet, willet, sanderling, willet, willet, willet, sanderling, sanderling, willet, willet, willet, dunlin, sanderling, sanderling (sanderling can be on any part of the beach), ringbill, sanderling, sanderling (beach seems to be getting narrower, and irregular on surface), sanderling, gull-billed tern, 3 willetts, willet, willet, 11 willetts, willet, sanderling, 2 willetts, ringbill, sanderling, willet, willet, sanderling, gull-billed tern, willet, ring-billed gull, ringbill, ringbill 5 Caspian terns, 4 gull-billed terns, willet, 3 ringbills, sanderling, sanderling (one legged), ringbill, willet, 2 ringbills, willet, sanderling, 5 willetts, sanderling, willet, gull-billed tern, 6 willetts, willet, willet, ringbill, sanderling, willet, ringbill, willet, ringbill, willet, herring, willet, 5 dunnings, ringbill, willet, sanderling, ringbill, sanderling, 2 willetts, 6 Caspian terns, 12 gull-billed terns, sanderling, 3 willetts, willet, 2 ringbills, sanderling, ringbill, willet, 3 ringbills, willet, 10 gull-billed terns, 5 ringbills, ringbill, sanderling, willet, sanderling, ringbill, willet, sanderling, 2 ring-bills, 3 gull-billed terns, ringbill, 10 Caspian terns, ringbill, 3 gull-billed terns, gull-billed, <sup>582.0</sup> ~~582.0~~ 10 mile past, 2 gull-billed terns, 9 Caspian terns, willet. (at access road 2 at mileage 582.2 (11:55 A.M.) left the beach and returned to main highway which is 71 beyond sandunes about 210 mile. This is highway P. 53) will continue W until we can get to beach by another access road & then continue census. 584.5 Causeway. Sand has blown in from beach and formed bay of water channel. Gophers all thru sandunes. ~~587.0~~ 587.0 second causeway and sand barrier between channel and gulf. 587.1 leaving for beach on access road no. 3. Starting on beach at 587.6 will continue census of birds: (Mustang Island State Park. willet, ringbill, 2 willetts, willet, willet, 2 ringbills, willet, ringbill, gull-billed tern, willet, 4 dunnings, 2 sanderling, Caspian tern, 2 willetts, sanderling, sanderling, willet, ringbill, ringbill, ringbill, 2 willetts, willet, ringbill, great-blue heron, 25 Caspian terns, willet, (588.6 mile 4 past), willet, willet, willet, willet, sanderling, sanderling, willet, willet, l. gull, ringbill, sanderling, ringbill, 2 ringbills, l. gull, willet, (589.6 mile 3 past), willet, Caspian tern, herring gull, 8 Caspian tern, 6 gull-billed tern, ringbill, willet, ringbill, sanderling

willet ( 590.2 Condominium on beach ), 3 Caspian, willet, 4 ringbill  
gulls, 4 l. gulls, 2 l. gulls, willet, l. gull, willet, willet, sanderling, 2  
willet, sanderling, willet, sanderling, sanderling, willet, ringbill (591.2  
entering State Park boundary), willet, ringbill, sanderling, herring gull,  
ringbill, herring, laughing gull, 2 gull-billed terns, herring, ringbill,  
willet, ringbill, 2 herring, 3 herring, ringbill, sanderling, ringbill,  
3 herring, 8 ringbills, herring, sanderling, willet, herring, herring,  
ringbill, laugh. gull, 5 laugh. gull, herring, 2 herring, willet (592.0 Nueces  
State Park exit. at 12:25 P.M.).

Summation of birds observed  
along 15.2 miles of beach from Port Aransas to Nueces Co. State Park.

	(first 10.9 mi. per mile)	(second 4.4 mi. per mile)	
182 ringbilled gulls	150	32	7.3
41 herring gulls	23	18	4.1 higher
105 laughing gulls	88	17	3.9
95 sanderling	80	15	3.4
1 black-bellied plover	1	0	.0
5 great blue heron	4	1	.2
89 Caspian tern	51	38	8.6 higher
12 dunlin	8	4	.9
148 willet	112	36	8.2
1 Forster tern	1	0	.0
48 gull-billed tern	39	9	2.0
426 total	557	170	38.6

relatively isolated                      human influence

Left beach and returned E on main highway toward Corpus Christi.  
592.6 sparrow hawk. 2 longbilled curlew on causeway crossing over to  
Corpus Christi. <sup>Photos 780106-1, 780106-2 and 780106-3 of rail boats at Corpus Christi.</sup> 628.5 approx. 50,000 redwing blackbird in one  
flock. 631.8 mileage of the River turnoff. Temp. 68 down town &  
80°F at airport. 637.0 Mountain Trail, sand dunes stabilized.  
639.4 Nueces River. Have not seen raptors since last recorded, east  
of Corpus Christi. 650.1 meadowlark only bird along the way and these  
rarely. 654.5 sp. hawk. 665.1 sp. hawk. 666.4 sp. hawk. 660.2  
redtail. 662.2 Line Oak Co. line. 667.1 turkey vulture. 669.2 first  
mourning dove in a long time. 672.5 redtail. 673.4 redtail.  
676.1 redtail. 677.2 redtail. 678.6 redtail (like a Warbler), sp. hawk.  
683.1 sp. hawk. 684.1 redtail. 685.2 redtail. 686.4 redtail.  
687.0 end of 4 lane and sp. hawk. 687.3 sp. hawk. 687.9 sp. hawk  
689.1 redtail. 692.6 redtail 693.4 2 redtails on poles and one flying.  
693.9 sp. hawk. 694.4 redtail. 697.4 sp. hawk. 697.5 sp. hawk.  
697.8 sp. hawk. 702.7 3 redtails, sp. hawk. 703.2 redtail. 704.0

redtail. 704.8 redtail at Whitsett. 706.4 redtail. 707.8 redtail.  
 709.0 3 redtails, sp hawk. Hills thru this area are structural.  
 709.5 2 redtail, one like a Harlan. 710.3 redtail. 711.0 sp. hawk.  
 711.2 sp. hawk. 713.0 Campbellton, and Atascosa River bridge at 5:30 P.M.  
 seems like about 20 min. before sundown. 718.2 sp. hawk. 720.3  
 redtail. 720.7 redtail. I am impressed with the number of redtails  
 that are dark. 724.7 redtail. 725.4 redtail. 728.1 sp. hawk. 5:35 P.M.  
 but still light enough to see birds. 728.3 sp. hawk. First two large  
 flocks of redwings and grackles. 731.1 redtail. 737.7 6:00 P.M. and  
 now too dark for census. 737.9, Galvan Creek. 739.8 Leming.  
 Continued on to San Antonio and camped a few miles S of the City  
 on highway 281. This evening visited San Antonio along the Rio  
 de Paseo. Made some purchase in Mexican stores on Rio de Paseo  
 about 1/10 mi. up river from the Halladay in. Later we had dinner  
 in the restaurant on top of the Tower of Americas. Your position over-  
 looking the city rotates once in 1 hour so that during a normal  
 meal the entire city is covered. I would recommend this attract-  
 ion for anyone going thru the City after dark. It was one of the  
 most impressive experiences we encountered along the entire route.

### San Antonio, Texas

Jan 7, 1978

min temp. last night 68°F. Left at mileage 83769.1 at 9:30 A.M. At  
 10:00 still foggy but sun trying to break thru. Will follow interstate  
 35 to Austin. 773.1 redtail. 806.8 Guadalupe River. Clouds  
 low cumulus and part of fog complex and alto & cirrus. Birds  
 rare along route. 826.7 Blanco River. 833.0 ~~sp. hawk~~, clouds  
 NE-SW. 852.1 Colorado River. 869.9 turkey vulture. 883.1  
 S. San Gabriel River, <sup>clear</sup> (2:50 P.M.) 896.3 wind NW as if a new front.  
 Cumulus now to S. 905.6 3 turkey vultures. 978.4 Hill Co.  
 983.7 under main line of clouds that extend from horizon to horizon.  
 994.1 divergence of 35 highway at 5:30 P.M. 5:40 sun to horizon  
 at 84003.8, several flocks of redwings but otherwise birds scarce.  
 014.4 Color <sup>of</sup> clouds has now disappeared. Continued thru Fort Worth,  
 thence to Denton, thence on 35E to a Camp. Earlier today visited the  
 Johnson Library in Austin and it is the most impressive of President Libraries.

### South of Denton, Texas

Jan 8, 1978

Left Camp KOA at 84099.0. Temp. last night 27°F. wind from NW.  
 about 20 miles per hour. Sky clear. Left 9:20 A.M. 84100.5  
 redtail. temp 30°F, winds 30 gusting to 35 <sup>MPH</sup> from N. Expected

To subside tonight, and become colder. 122.8 Cooke Co. 143.4 all native trees are without leaves. Contrasted to the S where everything was green. 144.5 middle Red River bridge between Texas and Oklahoma. (10:25 A.M.) Will keep complete list of birds for a few miles. Trees all bare of leaves. Dust blowing across highway from gusty wind. 150.1 2 crows and first observed all the way across Texas and so far in Oklahoma. mistletoe in selected trees. 152.2 crow. 153.3 meadowlark, 2 more. From here on in will record by roadside mile posts. having passed no. 10. raccoon road kill. Mile 12 post proper, turkey vulture, <sup>now back to actual mileage</sup> 161.2 marsh hawk, 162.3 turkey vulture. 163.3 turkey vulture. 166.9 now into red soil. 168.1 3 crows. 169.0 Carter Co. line. 169.8 meadowlark. 173.3 meadowlark, 175.1 15 meadowlarks. 178.7 5 meadowlarks. 179.2 2 mallards, 2 meadowlarks. 184.7 Lake white capped green, Springer. Genn Outrey turn off, striped skunk road kill. 185.3 8 meadowlarks. 186.2 redtail, 2 crows, 2 crows, 187.9 Harlan hawk, nine crows. 190.5 Murry Co. line on top of Arbuckles. Control of rock layers on vegetation is evident here and would make good photos. 195.8 jackrabbit road kill, 3 meadowlarks. N exposure of Arbuckles is in deciduous forest, 5 exposure in junipers, Crow. 196.6 6 crows, 10 meadowlarks, Crow. 198.8 12 ducks like clays. 204.4 stripe skunk road kill, 207.4 shrike chill index -13°F. 212.8 marsh hawk. 218.8 marsh hawk. also a redtail hawk road kill, soil bright red and plowed fields conspicuous. 220.9 Washita River, water flowing. Green fields of new planted grasses in contrast with red soil, 2 killdeer 226.5 McClain Co. line. ~~at~~ 227.9 2 photos 780108-1 and 780108-2 of red soil. 229.5 redtail in tree, meadowlark. 232.6 Crow, stripe skunk road kill. Lakes some color as soil, 233.3 stripe skunk road kill. 238.4 stripe skunk road kill, sparrow hawk, 244.2 four meadowlarks, 247.3 2 coyote road kills together. 248.9 stripe skunk road kill. 252.5 Cleveland Co. line and side S Fork of Canadian River. no bone ice in river. 1:30 P.M. 254.7 turnoff main street at Norman, and in Norman visited Grace Bee at Daratha + Gaylord Miller home. Left late afternoon and continued N thru Oklahoma <sup>City</sup> and camped at a K.O.A.

### N. Oklahoma City, Oklahoma.

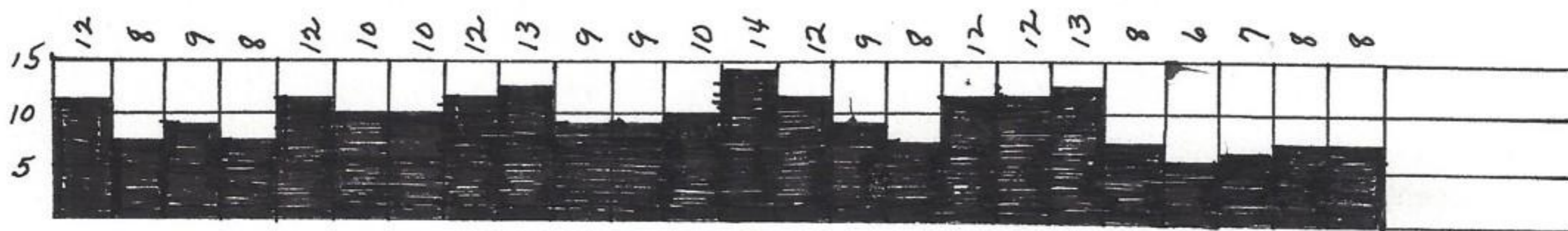
min temp last night Jan. 9, 1978 10°F. High wind quieted down to practically zero this A.M. Sun up shortly before 8:00 A.M. Left 8:45 A.M. Sky almost clear with a few high cirrus. 84 287.0 2 crows. 293.5 redtail

in tree. 296.0 Logan Co. line. 297.3 4 crows. 298.1 redtail in tree.  
 302.0 4 crows. 303.1 4 crows, redtail. Crows are being counted  
 this A.M., bluejay. 305.0 redtail in top tree. 305.4 redtail in  
 tree. no snow on any exposure and ice just forming on ponds  
 and rivers. 307.1 redtail in tree, meadowlark.  $\frac{2}{3}$  cultivated,  
 $\frac{1}{3}$  grass & trees. 309.0 2 crows. 314.9 Cimarron River. 315.0  
 Payne Co. line and redtail in tree, mistletoe still in area.  
 316.4 3 crows. 318.3 redtail and first one flying. 320.9 2 crows,  
 meadowlark. 322.5 3 crows. 326.2 crow, 2 meadowlark.  
 327.1 Noble Co. 327.9 redtail in tree. 329.1 4 crows. 332.0  
 crow, meadowlark. 335.9 redtail in tree. 340.5 Black Bear  
 Creek at 10:30 A.M., redtail, meadowlark. 344.6 meadowlark,  
 2 meadowlarks. 345.6 15 meadowlarks. 347.0 redtail flying.  
 348.8 redtail. 349.3 Red Rock Creek at 9:40 A.M. 350.6  
 redtail in tree. 351.6 redtail in tree. 352.5 redtail in tree.  
 352.7 2 redtails,  $\frac{1}{10}$  mi apart in trees, meadowlark. 356.0 cottontail  
 road kill. 357.1 redtail. 357.6 Kay Co. 358.3 2 redtail in  
 trees. 358.9 redtail in tree. 359.2 2 redtail in trees. 362.2  
 redtail. 362.6 redtail on post. 363.3 Salt Fork of Arkansas  
 River. mostly frozen. 11:00 A.M. 364.2 redtail. last 10 with heads  
 toward sun. Temp. 16° F., striped skunk road kill. 366.8 meadow-  
 lark. 367.6 redtail on post. 368.5 redtail, post. 372.2 2 red-  
 tails circling together. 372.9 redtail. striped skunk road kill.  
 375.4 4 meadowlarks. 376.2 redtail. 379.3 Chekaskia River.  
 mostly ice 381.9 2 meadowlarks, 2 meadowlarks, meadowlark.  
 384.7 redtail in tree 385.2 redtail. 385.5 Oklahoma <sup>Kansas</sup> State  
 sign at 11:25. 3 meadowlarks, redtail. 387.9 redtail. yellow-  
 shafted flicker. 395.0 striped skunk road kill, redtail on fence  
 post. 395.6 redtail (all redtails in trees unless otherwise indicated.  
 396.2 redtail. 397.7 marsh hawk, redtail. 399.4 redtail in flight.  
 and yellow-shafted flicker. 399.9 redtail, redtail. 400.7 redtail.  
 401.4 redtail, bluejay, 2 meadowlarks. 403.8 redtail. 404.9 Toll  
 Plaza for Kansas Turnpike. 407.1 cottontail road kill. 407.6  
 redtail, flying. 408.1 redtail. According to trees prevailing wind  
 from S. 409.4 redtail. 412.6 S. Fork Neosho River. and  
 flowing water with ice jams, redtail. 415.6 redtail. 417.6  
 redtail. 419.2 redtail. It dropped down for at least 200'. 419.6 2  
 redtails. 420.5 2 redtails. 420.8 redtail, sp. hawk.  
 422.0 redtail. 423.4 shrike & sparrow hawk. 426.3 redtail.  
 429.2 2 crows. 430.1 Arkansas River. Ice jams and  
 flowing water. Refuge land fell to left with approx. 120 crows.



The river is frozen. 431.3 redtail. 433.0 redtail. 437.1 redtail,  
 redtail, 438.2 redtail, 4 crows. 439.0 redtail. 440.3 redtail.  
 441.1 redtail. 441.6 first american roughleg, and sparrow hawk,  
 443.3 redtail. 444.4 roughleg. 445.0 roughleg, crow. 446.6 red-  
 tail. 448.3 3 redtails. 449.4 White Water River, ice, <sup>on</sup> river. <sup>but water flowing.</sup>  
 Redtail, 2 meadowlark. 450.1 roughleg. Trace of snow on <sup>side of</sup> some parts  
 of highway. 453.7 sp. hawk 454.5 redtail. 455.4 redtail flying.  
 459.0 redtail. 459.7 redtail. 460.2 4 redtails. and 460.4  
 redtail. 461.2 redtail. 462.0 roughleg. 462.9 roughleg.  
 Beginning to look more like flint hills. 463.9 roughleg. all  
 grasslands are pastured. 464.9 2 crows. 465.7 marsh hawk.  
 466.0 redtail. 467.1 2 redtail, one flying, one in a tree. 467.0  
 redtail. 469.0 redtail. 469.6 redtail. 470.3 cottontail road-  
 kill. 471.1 marsh hawk. 472.2 redtail. 473.0 2 redtails,  
 roughleg. 474.0 roughleg. 475.3 roughleg. 475.9 redtail. Sign  
 says Flint Hills next 31 miles. 476.3 roughleg. 477.2 2 roughlegs one  
 in tree and one circling. 478.6 exit to ~~Cassady~~ Cassoday. 479.5  
 redtail. 480.4 roughleg, meadowlark. 484.2 roughleg hovering.  
 486.2 bridge over gully at the 100 mile marker. 488.5 roughleg.  
 hovering, cottontail road kill. 489.9 roughleg. 493.2 marsh  
 hawk, interesting reds and greens in rocks. 493.8 roughleg.  
 496.9 overpass to Cattle Pen. (1575 feet and middle of Flint Hills).  
 500.4 first visual trace of snow although only on parts of road where  
 wind drifts snow. 504.6 roughleg. 506.1 2 roughlegs hovering.  
 509.7 marsh hawk, redtail. 510.8 Cottonwood River, frozen but  
 flowing in parts (2:15 P.M.). Slight increase in snow. 511.8 redtail.  
 513.0 exit 35 Interstate. 514.4 Neosho River, redtail. 516.4  
 redtail on pole. 516.6 redtail. 517.2 redtail. 517.8 roughleg.  
 519.0 redtail. 520.4 2 juv. redtails 2 inches apart. 522.8 marsh  
 hawk, redtail. 523.6 sp. hawk. 524.9 roughleg, marsh hawk.  
 525.6 roughleg. 526.7 redtail. 528.0 redtail. 529.1 redtail.  
 533.3 marsh hawk at Ardmore exit. 534.0 roughleg, meadowlark.  
 536.7 marsh hawk (solid overcast all the way but now some blue  
 sky to N. 541.5 redtail 541.6 marsh hawk. 543.4 2 redtails.  
 543.6 (temp 10°F, 2:55 P.M., wind from NW). 567.9 East Topeka exit.  
 573.0 redtail. 575.0 redtail (2), crow. 577.8 redtail. 578.4  
 sp. hawk. 579.4 2 redtails one chasing the other. Approaching  
 Lawrence, ponds frozen and no evidence of snow on any exposure.  
 584.4 redtail 588.0 redtail, meadowlark. 588.5 West Gate  
 at Lawrence. Home 84589.7 at 8:00 P.M. having travelled  
 3,347 miles

miles per gallon of gas on trip. Pulling trailer against wind uses most gas per mile. Electronic distributor increases mileage by at least 3 gals per mile. Premium gas logs better mileage than regular.



Terrain and speed are also factors as well as in city versus highway travel. Average miles per gallon = 10. On this basis we would have used approx. 334.7 gals and at 65¢ per gal would = \$ 217.00 for gas.

Kaw River between Leecompton and Lake View, <sup>and Jefferson</sup> ~~Douglas~~ counties  
Kansas.

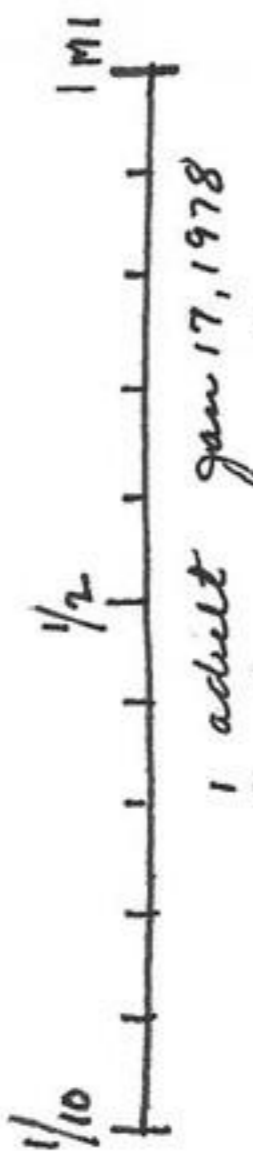
Jan 17, 1978

made first bald eagle census of the Kaw River, <sup>this year</sup> between Leecompton  
(from 710 mi. up river from mouth of the Delaware River) to Lake View  
Lake. Census conducted between 11:00 A.M. and 2:00 P.M. on a  
clear day. Observations by car and 60x scope. Did not check  
from edge of river but from car only. Did not see any birds in  
active flight. Recorded position of bald eagles observed. The  
melanistic redtail hawk has been observed in the general area marked ⊗  
for the last three or four years. It is rather weary and when car

MAP FROM USGS TOPO.  
RIVER DOES NOT CONFORM TO  
LATEST CONFIGURATION

● = adult bald eagle  
○ = immature bald eagle

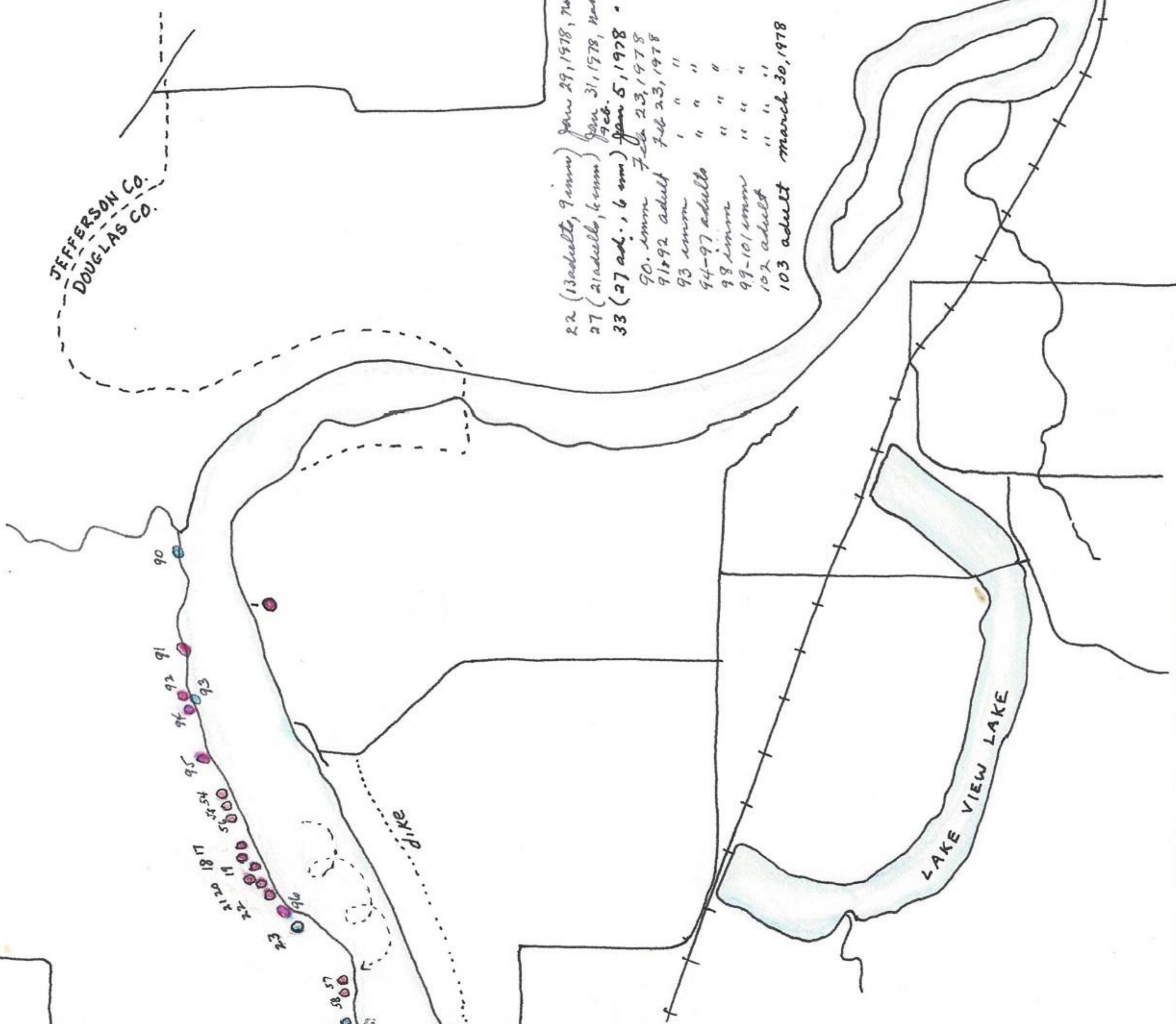
JEFFERSON CO.  
DOUGLAS CO.

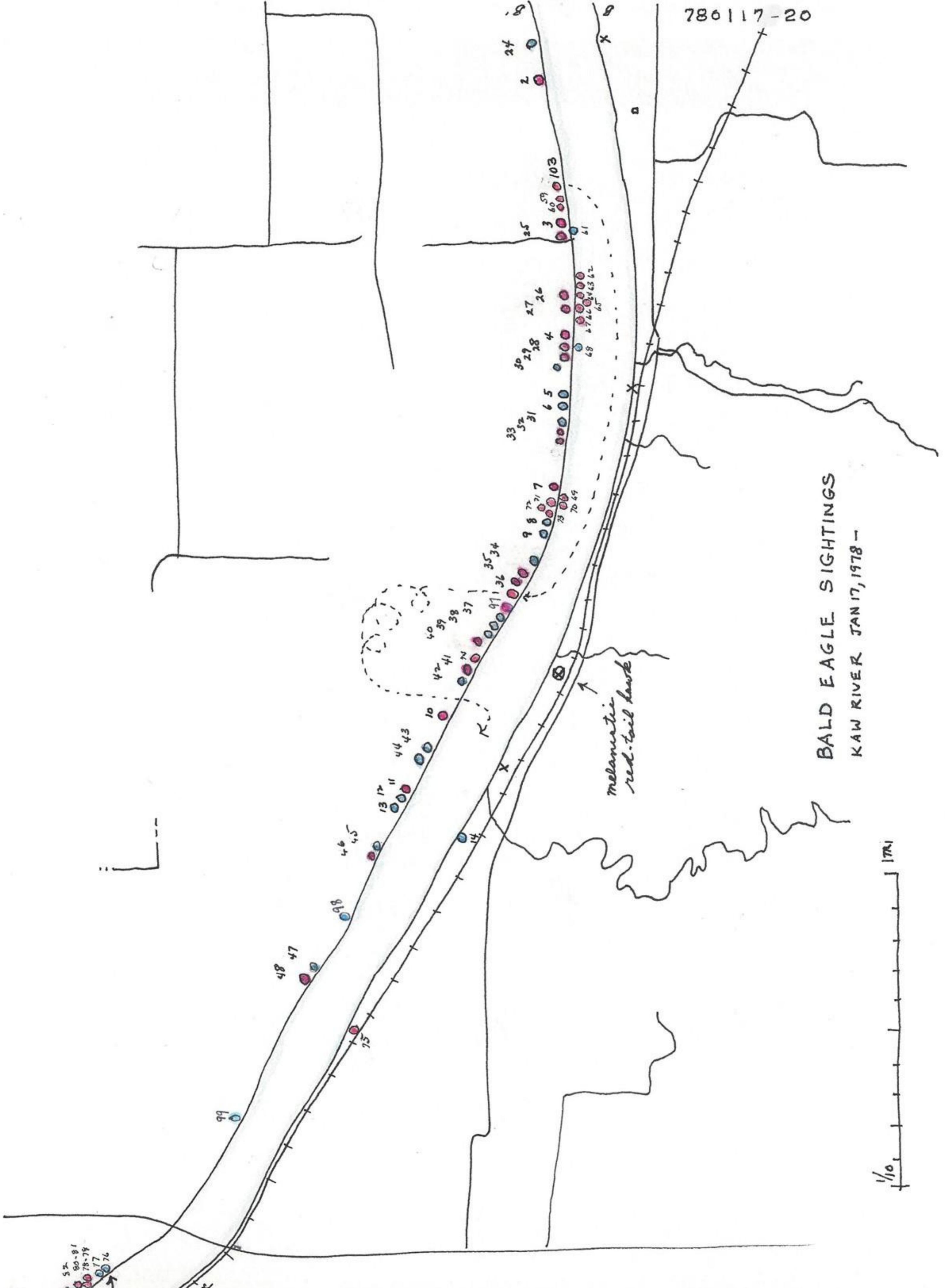


- 1 adult Jan 17, 1978
- 2 " " " " " "
- 3 " " " " " "
- 4 " " " " " "
- 5 immature " " " " " "
- 6 " " " " " "
- 7 adult " " " " " "
- 8 immature " " " " " "
- 9 " " " " " "
- 10 adult " " " " " "
- 11 " " " " " "
- 12 immature " " " " " "
- 13 " " " " " "
- 14 " " " " " "
- 15 adult " " " " " "
- 16 " " " " " "
- 17-22 adults Jan 21, 1978
- 23, 24 immo " " " " " "
- 25 adult " " " " " "
- 26-29 adult " " " " " "
- 30, 31 immo " " " " " "
- 32 adult " " " " " "
- 33 adult " " " " " "
- 34 immo " " " " " "
- 35, 36 adults " " " " " "
- 37-39 immo " " " " " "
- 40, 41 adult " " " " " "
- 42-45 immo " " " " " "
- 46 adult " " " " " "
- 47 immo " " " " " "
- 48 adult " " " " " "
- 49-51 immo " " " " " "
- 52, 53 adults " " " " " "

- 22 (13 adults, 9 immo) Jan 29, 1978, not on map.
- 27 (21 adults, 6 immo) Jan 31, 1978, not on map.
- 33 (27 ad., 6 immo) Jan 5, 1978 " " "
- 90. immo Feb 23, 1978
- 91-92 adult Feb 23, 1978
- 93 immo " " "
- 94-97 adults " " "
- 98 immo " " "
- 99-101 immo " " "
- 102 adult " " "
- 103 adult March 30, 1978

- [25 individuals, not recorded on map] Jan 22, 1978
- 54-58 adults Jan 29, 1978
- 59 immo - 60 adults " " "
- 61 immo " " "
- 62-67 adults " " "
- 68 juv. immo " " "
- 69-73 adults " " "
- 74 adult " " "
- 75 adult " " "
- 76, 77 immo " " "
- 78-82 adults " " "
- 83 juv. immo " " "
- 84-85 adults " " "
- 87. immo, 88 adult, 89 immo " " "

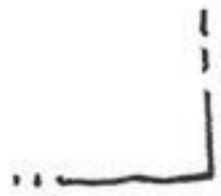




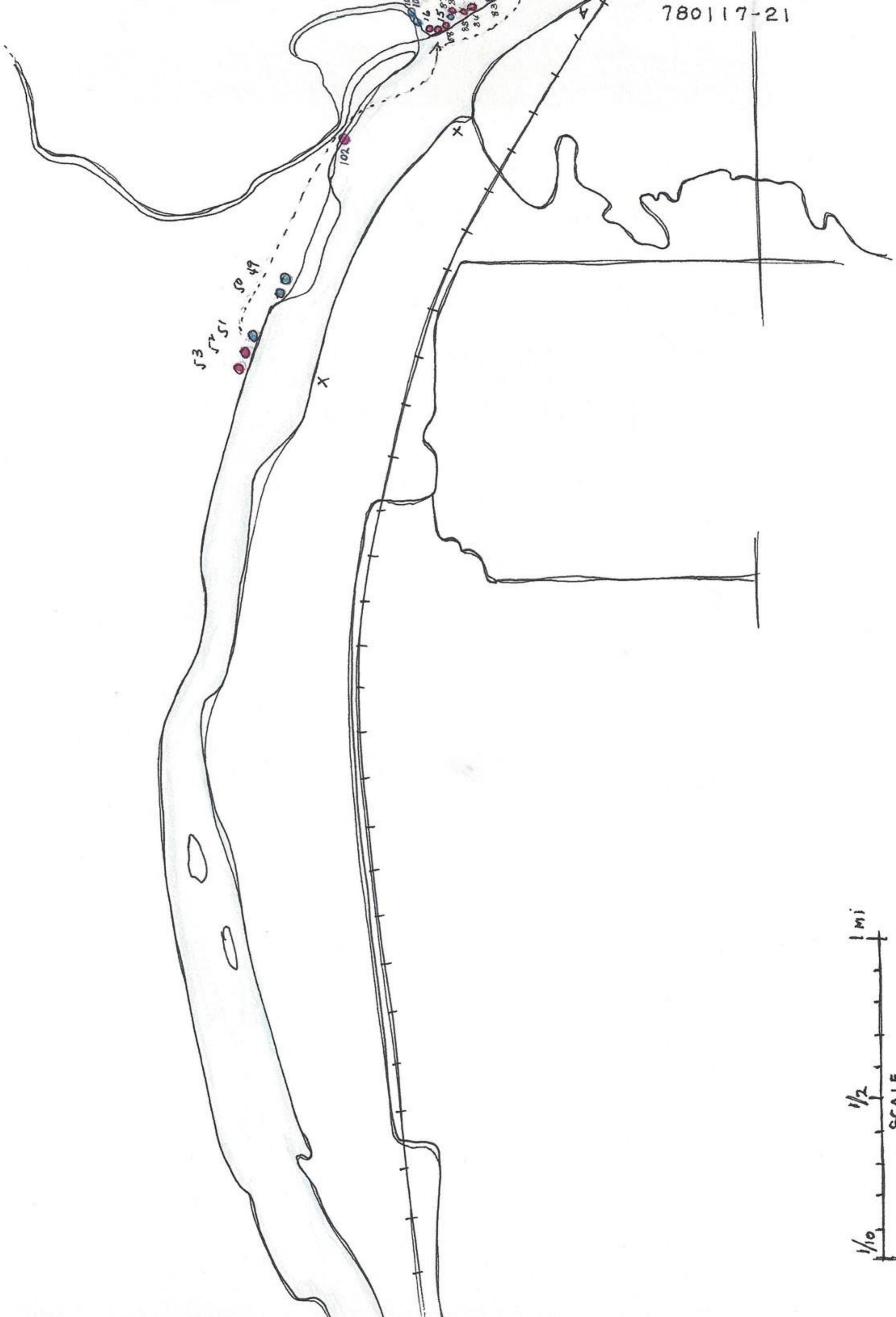
BALD EAGLE SIGHTINGS  
 KAW RIVER JAN 17, 1978 -



*melanistic red-tail hawk*

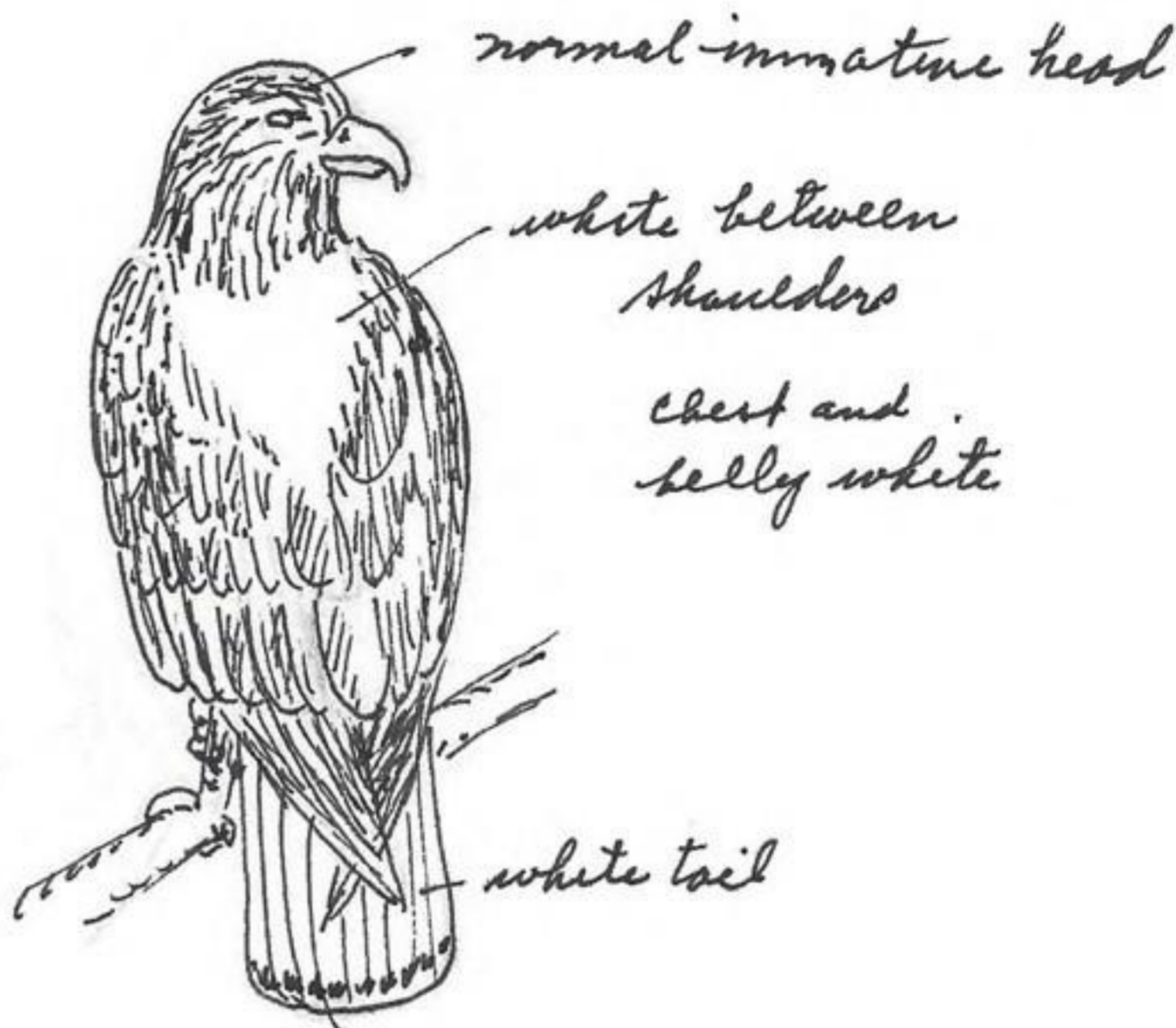


52  
 60-81  
 78-79  
 77  
 76



is stopped will leave the area and fly north across the river and alight in large Cottonwood trees. The number of eagles observed were 16 today, 9 adults and 7 immatures. One of the immatures was partially albanistic with white tail and fine black terminal border, white patch between the shoulders, 90% white on breast and belly, head mottled.

There seems to be an increase in numbers of bald eagles this season as compared to previous years. Water open in normal meander channels of river but all other slower moving water frozen and this water and sand under complete covering of snow. On return home



noted a sparrow hawk 1/10 mi. W of intersection of Kasal and Farmers Turnpike

Kaw River between Leecompton and Lake View Lake, Douglas and Jefferson Counties, Kansas.

Jan 21, 1978

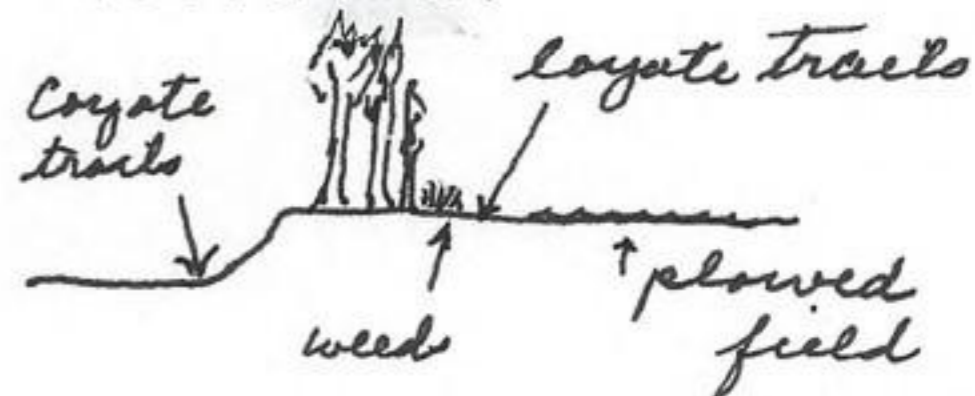
Left 9:30 A.M., 84726.1 mileage, sky overcast, visibility 1 mile, temp 6°F, some snow in the air.

Checked bald eagles on Kaw thence to Perry Reservoir to check on ducks. See map of Jan 17 for distribution of eagles observed. These are superimposed on map of Jan 17 and are sight records made from car and from 5 vantage points along the river marked X on map. The six adult eagles labeled 17 thru 22 were in one tree and were so aligned ∴. These 6 eagles were in area along river that was completely covered with ice and snow. Open water was some 1/10 mile up stream. Most open water follows N side of river against the bank. No moving ice blocks. At mileage 31.8 where dike contacts road left car and walked to river to a vantage point where eagles in this area could be counted. The 6 aluded to above were observed from here. Enroute to the point on river counted 14 tracks of *Peromyscus* (probably *maniculatus*) leading from dike area to old bean field some 15 feet beyond the grass covered dike. These tracks were not associated with trees. As I approached the cottonwood trees of the riparian community, some 30 feet this side, noted first cottontail tracks and then nearer the trees, fox squirrel tracks. In the tree area along side of the field there were many tracks of the squirrel,

cottontail and coyote. I am impressed with the great number of cottontail and coyote tracks this year. Made observations at this point at 10:05 A.M. Redtail in area. Up to this point have observed the following kinds of birds: meadowlark, slate-colored junco, tree sparrows, starling, shrike, yellow-shafted flicker, horned larks and redtail. It is snowing lightly and hazy or foggy but eagles can be seen for  $\frac{3}{4}$  miles. Next stop at creek that enters Kaw where road <sup>starts to</sup> traverses hillside. From mouth on W side noted several eagles (see map). Again I am impressed with the numbers of tracks of cottontails & coyotes along the river. There are four sets of tracks on snow where main valley contracts bank. This creek is at mileage 32.9. Two adult eagles left tree, circled twice and then returned to same tree. Returned to car at 10:40 A.M. Most eagles select large cottonwood trees for ease of landing & departing. Next stop at 34.4 left car and went N to river (about  $\frac{1}{10}$  mi. E. mouth Oakley Creek). From this position noted the albino bald eagle noted on the 17th of January. This immature was on the snow in middle of river bed and playing with some object which it held in its left foot. It would jump up and down and lean backwards, occasionally thrusting a wing laterally. After approx. 3 minutes another immature bald eagle arrived and flew directly over it within 2 feet above. The one already on the snow flipped over backwards and alighted on its side with the object still in its foot. The other eagle continued beyond in a glide and lit approx. 20' beyond. This second bird had considerable white in its tail and head. This action took place approx. 200' down river from mouth of Oakley Creek and in about the center of the river bed, open water 60' beyond. Returned to car. Oakley Creek bridge at 34.6, creek frozen and snow covered. 36.0 LeCompton Road now N. at 11:15. 38.5 road contacts railroad and begins parallel course W of LeCompton parked car and walked N to river (Kaw), thence E to <sup>(Crown Creek)</sup> main creek that drains area W of LeCompton, thence up creek to railroad & then back to car. See map for distribution of eagles. The two adults & one immature flew to mouth of the Delaware River where they lit in trees on E side. This movement was result of my approach to the river. As I worked E to mouth of creek which across the river from the mouth of the Delaware River, they again flew to trees half way between Delaware & LeCompton bridge. (see map. Jan 17, 1978). 20 mallards and 8 Common mergansers in water at mouth of the Delaware. There is open water along the N bank in this area.



There are 8 sets of coyote tracks on bank of Kaw and 3 sets at base of bank along river. These tracks follow regularly along the edge of the field and only occasionally divert to either side and then only for a few feet. Two sets of fox trails are associated with the coyote trails. Wherever



there are piles of branches of trees on ground there is usually 4 or 5 sets of Peromyscus trails leading 20 or 30 feet out into the cultivated field. Coyotes frequently inspect these brush piles. Returned to car via Coon Creek by walking up creek on ice and now covered with snow. There were 4 sets of coyote tracks and 2 of red fox.

The red fox maintained a straight course. In several places I could see where 2 coyotes had met and trampled considerable areas of the snow. At railroad bridge the tracks left center of creek and moved to rock side to follow at base of abutments underneath the bridge. Rabbit tracks were confined mainly to traverses from one side of the creek to the other. Also noted several squirrel tracks and these, like the rabbit cross the creek rather than use it as a tharapare. Most of their tracks were along banks. Between this bridge and car is an excellent trapping area of fallen timber in a gulch at base of cliffs.

This condition is present all along the railroad right-of-way.

Continued to car and returned to LeCompton and at 40.7 at east end of bridge and continuing north to Perry Reservoir at 12:35 P.M.



43.7 Delaware River and surprisingly is open. 44.2 sparrow hawk.

44.9 redtail. 45.7 highway 24. 47.0 Thompsonville, robin.

Will keep complete census from here W and back over top. 77.6 now north, bluejay, pond to left frozen and covered with snow, 2 fox squirrels feeding on buds at top of elm trees and they are very conspicuous. 48.5 fox squirrel at top of tree and working over buds.

48.6 Overlook. From here can see approx. 6000 mallards resting on ice about  $\frac{4}{10}$  mi. directly N of the outlet gate at dam. These birds are in a fairly compact group. No water. Entire lake frozen and approx. 75% percent in drifting snow from NNE. No fractures in ice. Enough snow in air to restrict visibility to other side of lake and faintly as far E as Big Slough bridge. Hill appear bluish. Time 11:50, temp 26°F At 1:00 P.M. a marsh hawk

flew into area of ducks and while I could not see the action of the marsh hawk which as far as I could tell was passive, after all the ducks were in the air, the marsh hawk flew on ice with a duck. The mallards returned to an adjacent spot not far from the hawk while the hawk consumed the duck. I could see feathers fly and organ systems being pulled from the duck. 5 crows arrived and two persisted working within 6-10 inches of the hawk and after about 2 minutes of such harassment the hawk left and the crows took over. The hawk struck at the crows several times when they got too near. The hawk remained in the area and got ducks up off of the ice on 2 other occasions but without success. At 1:20 a coyote crossed lake from S end of Big Slough park to mainland just E of marina. About half way it stopped and looked back and then tarried about 3 minutes in one area sniffing the ice and occasionally looking back toward the Big Slough Park area. It travelled by a loopying or trot and movement suggested injured legs, probably frozen feet from the last week of sub-freezing temperature and no relief from hunting dogs. Left Overlook 1:35 P.M. still snowing slightly. 48.8 Approx 52 slate-colored juncos and 8 tree sparrows in one flock at edge of road. Continuing straight no. up to peninsula. 49.8 Crow. 50.2 18 tree sparrows, 4 juncos, 1 crow. 50.4 NE part of peninsula, no open water or birds of any kind. 50.9 back to main road. 52.2 W end dam. At middle of dam level 890.5 feet. Water open beyond outlet gates (S side dam) and 8 ducks below and 80 at first bend beyond. While crossing the dam the ducks got up, circled 8 times & returned without apparent cause. 53.7 E end dam. Anemometer turning about one per second. 54.2 redtail. 54.6 SE side of Perry Reservoir area. Road closed to S so will continue E. End of complete census. 13 bobwhite <sup>redtail</sup> just E of the 4 corners on hill side. 61.9 E end of LeCompton bridge. In crossing and adult bald eagle flew W over bridge and dropped down on water and picked up a fish. An immature circled over water approx. 1/10 mi. down river from bridge. 62.6 beginning of lower road off of LeCompton road. 2 crows in field to left. On dike near trees where I had traversed this morning at mileage (31.8 of this morning's recording), observed 3 fox squirrels feeding on soy beans some 30' from trees. They would force their heads under the snow and plow so to speak for 2 or 3 inches until they struck a branch of soy beans and they would lift head above snow to eat the beans. Their heads carried snow. Tail held low. Home at mileage 84772.5 at 2:45 P.M., still some snow in air.

Kaw River between Leecompton and Lake View Lake, Jefferson and Douglas Co., Kansas. and Perry Reservoir, Jefferson Co., Kansas.

Jan 22, 1978

Left at 10:45 at 84775.4, sky clear, sun out for first time in about a couple of weeks, temp. 19°F. slight wind. Annette and I drove to Perry Reservoir to check on ducks. Kaw River at Massachusetts with solid ice above and mainly open downstream  
77.8 redtail, wind from S and from a chimney about 30° slope  
78.7 redtail. 79.8 meadowlark. 80.6 redtail. 82.8 redtail, lone  
seen 2 mourning doves & starling so far, junco & tree sparrows along road, bluejay, robin. 89.2 marsh hawk, 30 horned larks. Ponds frozen over, meadowlark. 92.9 now W to Oskaloosa. Jay's old barn at Farmers as he left it some weeks ago. red-headed woodpecker 96.1 Oskaloosa center. and continuing W,  
98.4 2 redtail. 99.8 sparrow hawk. 01.9 redtail. 02.7 4 corners now N to Paradise Point. Complete census in reservoir area.  
04.8 now W. 05.1 redtail. 05.9 20 juncos. 06.2 30 meadow-larks 06.7 at turnaround S of gate entrance, redtail, 07.1 back to gates & now W.

at point  
marked A  
took

sighting  
of open  
water thru  
area covered  
on causeway  
bridge to S.  
which produced a  
diameter of 500'. Another  
sighting later from  
station B relegated  
the open water in its proper position  
in the lake. Will check kinds of  
ducks and geese at later time today.

Continued and 08.8 observed  
driftwood 3 feet above road  
at point where it turns left  
to point (SW). From this point observed  
an adult bald eagle fly over ducks and  
geese at open water. The birds left



circled and returned while the eagle lit on ice about 300' beyond. This eagle flew near ducks on three occasions but apparently not close enough to displace the ducks. It finally flew <sup>12:20</sup> NE with <sup>put</sup> encountering any bird. From here can see about 100 Canada geese moving from one position of the pond to another (to S end) and creating considerable group reaction in the water by chasing each other, swimming, flying, splashing etc. The geese are the only ones active. Only about 2 mallards per minute are seen to change position from one part of the open water to another. Continued clockwise and at 09.4 40 juncos & 18 tree sparrows. At NW part of peninsular, marsh hawk in grass field. 11.7 top of last hill. ~~At point A made estimation~~ 12.4 gates, roughleg. at 12:50, redtail in field to 5. Continued E & then S to 4 corners, thence to Old Town Park (N side of highway on hill and from point B made sighting across to SW point of Paradise Peninsula. Also estimated flock content in or around edge of open water. There are approx. 40 000 mallards, 5 000 Canada geese which is an unusual high number for winter population at Perry Reservoir, 30 snow & blue geese, 10 of them blues, also 2 hybrid blues. There may be other kinds of ducks but I was not able to determine. No common merganser which are generally present during winter at Perry Res. Left at 1:15 and there has not been any disruption of the waterfowl since the eagle <sup>last</sup> flew over at 12:20. Left at 1:15 and continued towards Ozawie. at middle of bridge on causeway, redtail. There is a 2 foot wide band of water on top of ice leading under the bridge and to my knowledge is the only open water, except that made & maintained by the water fowl on the entire lake. Continued to NE part of Ozawie where one receives the closest view of the open water some 1700 feet to the east. This is the forest <sup>th</sup> S & W that this open water has occurred in the last several years or in fact since I have been observing Perry Res. It has always been farther N. Returned to 4 corners at mileage 24.6 and now S., tree sparrow, 28.3 redtail, 30.7 redtail. 31.5 Big Slough bridge. Crossing dam noted approx 600 mallards on ice in pod in same position as observed yesterday. at head of river S of outlet approx. 1500 ducks. (sp?). 37.8 Thompsonville, now S. end of complete census at 2:10 P.M. Redtail. Continued to Leecompton and counted number of bald eagle from Delaware River down river along river road to start (see map for area) and came up with 24. No attempt to determine age or position of the eagles. Along route observed redheaded woodpecker, redbellied woodpecker and the same melanistic redtail and as usual it flew N across river before I could get the binoculars on it. 55.7 redtail & marsh hawk 55.9 Kasse & Peterson. 84 856.7 home at 3:45 P.M.

402 Yorkshire, Lawrence, Douglas Co., Kansas

Jan 23, 1978

at bird feeder have observed the following birds: (estimate of average numbers at feeder.) Observation 1/2 hr from 7:30 A.M. to 8:00, 12:00 to 1:00 and 5:30 to 6:00 in evening.

English sparrow from 6 to 40 at a time and nearly always in area. There are times, however, when there are no birds at feeder.

Starling. More sporadic but when present are usually 3 to 12 in number. Feed on seed mainly but others on grain.

Slate-colored juncos. Fewer than English sparrows by a considerable number but nearly always 4-6 feeding at the times the sparrows are there. They feed with sparrow but also feed beyond feeder. One has white on left side of head.

Tree sparrows. Generally 2 or 3 associated with sparrow and juncos. Come later than the above 3.

Downy. Ordinarily 1 ever 3 days.

Red-bellied woodpecker. About same as downy.

Yellow-shafted flicker. One every 2 weeks or so.

Bluejay. 1 to 4 at one time and visits sporadic.

Chickadee, black-capped. 1 per every 3 days.

Goldfinch. 1 every 4 or 5 days.

Pine siskin. Up to 5 every day and late arrival. (in last week)

Rabun. 40-60 at berries for short time each day for the last three days.

Mockingbird. One early in season.

No brown creeper or nuthatch so far.

Harris sparrow 2-7 for a period of about a week some 1 1/2 weeks ago.

Perry Reservoir, Jefferson Co., Kansas

Jan 29, 1978

Annette and I to Perry Reservoir via Kaw River and eagles.

Sky overcast, some blue on horizon to N & E, wind out of north,

84 ~~94~~<sup>3.0</sup> mileage and left at 9:45 A.M. Temp. ~~40~~<sup>40</sup> F. 44.2 one redtail

in tree and another one approach in in low straight glide until

contact with the one in the tree. Kaw River with new pack ice

that has closed many of the open stretches of water but <sup>some</sup> open water

still present. <sup>See map of Jan 17 for distribution of eagles. Also 1 common merganser.</sup> 57.8 redtail at Apeo station on old highway 24

and now to N. 59.8 Thompsonville and now complete census.

60.6 now N. 61.4 Overlook at 11:35. 90° of lake in snow, the rest in ice and patchy, wind blown from NNE. Some slight evidence of E-W fractures. Fox squirrel feeding on buds in top of elm tree. no ducks on ice. 62.1 W end dam + now N. 63.4 passing peninsula turnoff. 63.7 7 slate-colored juncos. 65.0 head of bay, redtail and mackinbird. 65.4 gates. 66.1 fox squirrel. 66.5 13 bobwhites. Checked boats to left. 68.8 Rock Creek bridge. Beyond there is a new <sup>paved</sup> road <sup>to Ozarkia road</sup> that cuts the corners of the old road so old mileage reading will not now apply. 71.7 now N from a 90° angle. 73.4 2 meadowlarks, robin. 74.1 sparrow hawk. 75.2 main Ozarkia Road. now E. From N end of Ozarkia found geese, ducks in same numbers as observed on Jan 22, 1978. 81.2 middle ~~Rock~~ <sup>Ozarkia</sup> Creek bridge, lead closed under bridge, marsh hawk on road sign on causeway and did not leave when we passed. 81.8 redtail. Ice on road cut on N side still same size & shape as Jan 22, 1978. 83.1 4 corners, redtail. 85.6 2 redtails in tree and 6 1/2 feet apart. small birds rare today. 88.3 13 robins. 89.2 redtail. 89.8 bridge at Big Slough Creek (middle) 91.0 end of Ferguson Road at 1:10. Redtail here. End of complete census. From here N and thence E to James Robert Bee farm. 95.5 redtail this is at far W end of road that eventually passes his place. 96.7 21 crows, 30 ducks, redtail. 01.3 sparrow hawk. Red shouldered hawk picked up a mouse and returned to a tree where it consumed it, then flew 200' and alighted on top telephone tree + then to tree on side of valley. This is in Bush Creek E of James Robert's place where his road crosses the Bush Creek Road which we have been following S from Oskaloosa. Redtail N side river across from Kansas Power & Light in river valley. Kaw River bridge at Lawrence, ice above, open below + small stream beyond. Home at mil. 85028.3 at 4:15

Jan 29, 1978

Student at K.U. reported 22 bald eagles including 13 adults and 9 imm. in the Leecompton area along the Kaw River from mouth of the Delaware River and a short distance below the bridge at Leecompton. Another student reported the ice is 8 1/2" thick about 100' out from edge of Perry Reservoir in the Big Slough Area. He also reported almost imperceptible fractures regularly aligned in main lake.

Jan 31, 1978

Student reported 27 bald eagles including 21 adults and 6 immatures in the mouth of the Delaware River on the Kaw + to 3/10 mi. downstream from Leecompton bridge, most of them however were near mouth of Delaware R.

402 Yorkshire, Lawrence, Douglas Co., Kansas

Feb 2, 1978

Observed first Lincoln Sparrow at feeder. Also 8 Cedar waxwings for first time. Harris Sparrows (10 were at feeder again. They reappear after cold weather and especially after it snows. There seems to be more different kinds of birds now than earlier this season.

Feb. 3, 1978

First song sparrow at feeder. Last week and a half there has been a group of approx 20 robins visit the bushes of berries by the feeder. All birds tolerate the robins. The pine siskin (2-6) have been regular visitors at the feeder the last week or so. Thistle seeds are the favorite food of this bird.

Feb. 4, 1978

This morning (8:00 A.M.) there were no birds in feeder area this is the first time that there have not been some birds at least in the area. Some thawing yesterday and 30°F this morning which is warm compared to previous month. Birds arrived about 8:20 A.M. and mainly as individuals from various directions rather than by flock formation. Day overcast & wind from S.

Kaw River between Lake View & Leecompton, Douglas, Jefferson Co., Ks

Feb. 5, 1978

Dad Student saw 33 Bald Eagles (27 adults, 6 imm), mainly below Leecompton Bridge, only 5 in Delaware River.

402 Yorkshire, Lawrence, Douglas Co., Kansas

Feb. 7, 1978

Temp at 8:00 A.M. = 10°F. Snow all night and 4 inches so far. at feeder approx 100 English sparrows. 8 junco & tree sparrows. At one time 25 Eng. sparrow on feeder (20 inch diameter) and 2 tree sparrows among them. At times the Eng sparrow would overlap the tail of the tree sparrow. There was no antagonism between the two. Sparrows would periodically leave & tree sparrows would remain on feeder but raise momentarily before settling down again.

Feb. 10, 1977

A note from Mary gives the following information about the rifle used by Dad before I was born and subsequently given to me and last month sent to Pally in Cooper. "Remington Model 8A autoloading rifle (1906-1936). appraised at \$170 but is worth 200.00 to 250.00."

402 Yorkshire, Lawrence, Douglas Co., Kansas  
 in ~~Lawrence~~, ~~Lawrence~~, ~~Lawrence~~, ~~Lawrence~~  
 Feb. 12, 1978

Snowed all day and night leaving 10 inches of snow on ground.  
 This snow drifted with winds that followed. Dennis

Feb. 13, 1978

Photo 780212-1 at 402 Yorkshire Dr., Lawrence and 780212-2, Bailey's across the St.  
 Feb. 14, 1978

Deep snows have brought more birds to feeder. A red-bellied woodpecker that was flying toward the feeding area (suet in trees) was chased by an English sparrow, not body contact but closely in pursuit. I have noticed Eng sparrows chase other larger birds. Robins feeding in cranberry bushes are very awkward on limbs and frequently get wings or tail caught in branches, there is frequent flapping of wings to maintain position while feeding. Cedar waxwing in contrast are highly adapted for feeding on the berries. These bushes had a good crop of berries last fall and are about one-half gone this date. A sparrow hawk has been seen resting on high utility line on Peterson Road from Iowa W to approx. 1/10 mi. W of Yorkshire and Peterson Road. It rests on wire for long periods of time, sometimes in wind that requires constant adjustment on wire. Today it came into the feeding area and alighted on the S side of the martin house which is directly above the feeding area. Although all the feeding birds (Eng. sparrows, tree sparrows, slate-colored juncos, pine siskin and goldfinch) all left the 2 feeders and flew approx 8 feet into a bush, they were not particularly concerned about the sparrow hawk and immediately returned to the feeders not over 10 feet below the sparrow hawk. The birds carried on their normal feeding activity. The sparrow hawk watched the birds below and turned its head toward birds feeding below. The body of the sparrow hawk moved from side to side in controlled movement and in adjustment to the wind, but its head moved back and forth, occasionally up and down independent of the body, as it watched critically the birds below. At 1:20 P.M. it left without disturbing the birds and flew NE to utility line approx 1/10 mi. away. At 1:30 P.M. it left line and flew directly to feeding area with a glide and occasional flop of wind. It flew directly over feeders and darted up into the air, circled & returned to martin house for 15 minutes then left. I got the impression that the birds were not really concerned about the sparrow hawk activity. It returned at 2:10 P.M. and after 15 minutes left. In each case it flew to the feeder in direct line from its perch on the utility lines. Sparrow hawks normally feed on mice in winter but deep snows have forced them to feed on birds, however unsuccessfully it may be.



Lawrence, Douglas Co., Kansas

Feb. 15, 1978.

Heard first song of cardinal this season. This morning made circumnavigation of Clinton Reservoir by call, entering all roads leading to lake area but all blocked off. At Coon Creek 2700 steel belted tires 78x15, brand new for fish protection.

Museum Natural History, University of Kansas, Lawrence, Kansas

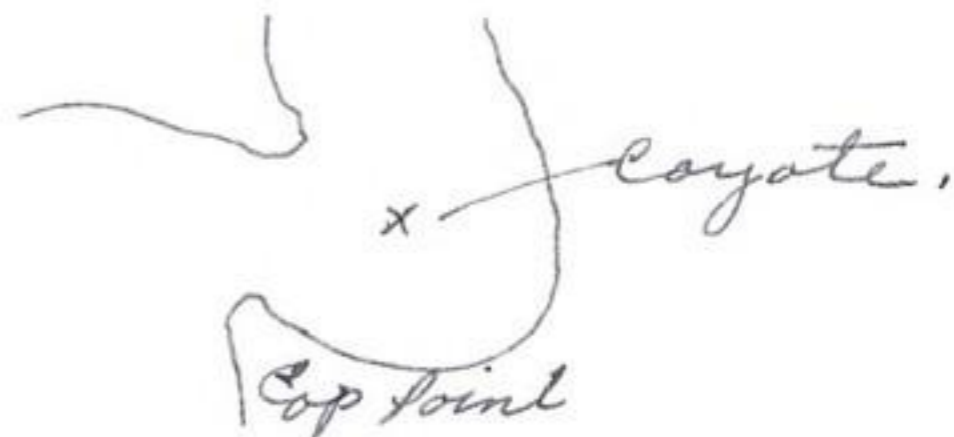
Feb. 17, 1978

Graduate student trapping on natural history Reservation reports high population of small mammals in January including: *Peromyscus maniculatus*, *Peromyscus leucopus*, *Reithrodontomys montanus*, *Reithrodontomys megalotis*, *Microtus pennsylvanicus*, *Microtus montanus ochrogaster* and *Sigmodon hispidus*. He claims that *Reithrodontomys megalotis* more aggressive than *Reithrodontomys montanus* when handling and can be determined on this character Greater length of tail but body measurement.

Perry Reservoir, Jefferson Co., Kansas

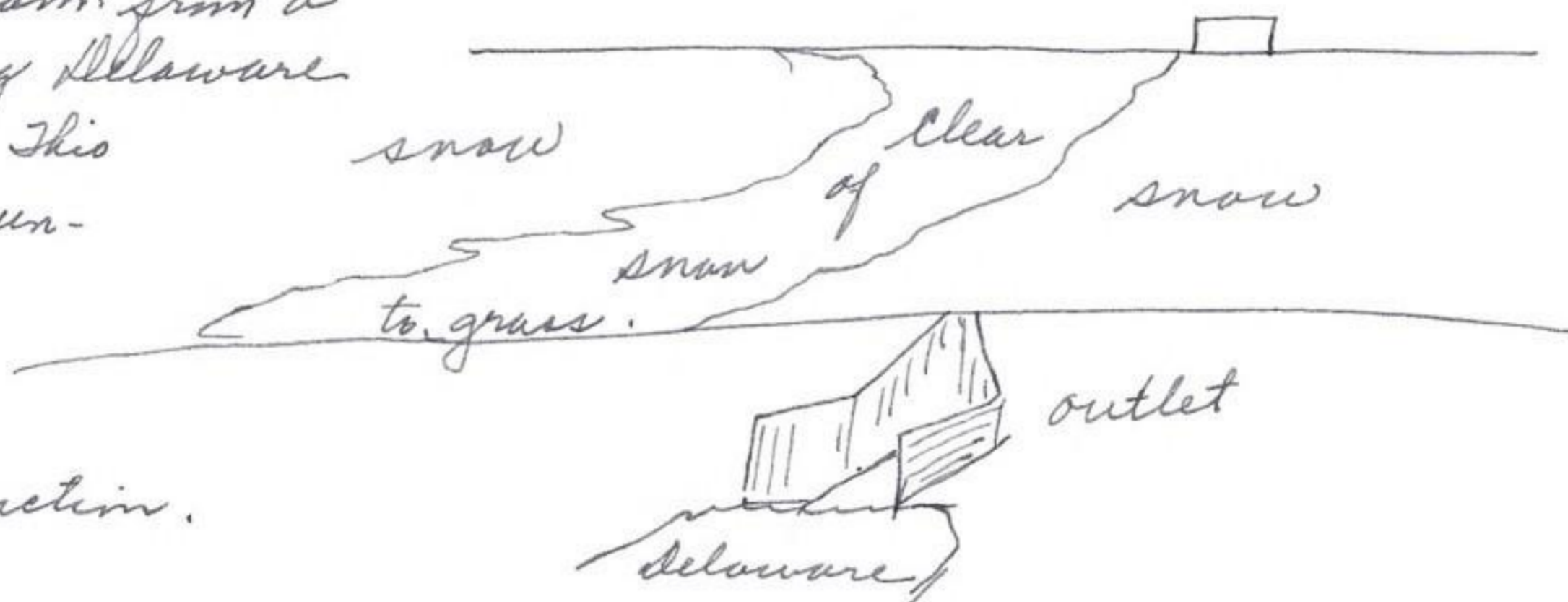
Feb. 19, 1978

Annette and I made trip to Perry Reservoir to check on bird. Did not take complete census but summarized: at ~~Ozawkie~~ Ozawkie (NE corner) counted over 2000 Canada geese, 1500 mallards, 24 snow geese and 13 blue geese and 1 white fronted goose in open water that has been maintained by the waterfowl. It is 1/3 smaller than previous trip. The only other birds were 250 mallards 1/10 mi. N of outlet at dam. They were on ice & snow. No open water N of dam. On west side of lake from W end dam to Ozawkie noted 3 redtails, 1 sparrow hawk, and <sup>one or two</sup> few other birds. In bay area NE of Gap Point noted a coyote resting on ice & snow in middle of lake. It was lying on side and would occasionally lift head to look around. On Perry Reservoir snow completely covering ice and no relief. At Ozawkie noted a coyote cross lake as indicated on



map. It walked and trotted most of the time but occasionally turned around to look back along his trail. At the open water did not see a bald eagle from at least 3:30 to 4:20 P.M.

At 4 corners E of Ozawie took photo 780219-1 of road cut and snow. Below Perry Reservoir drew condition of snow cover of S side of dam, from a position along Delaware below dam. This was caused by unknown causes but hope it is not result of dam construction.




Lawrence, Douglas Co., Kansas

Feb. 23, 1978


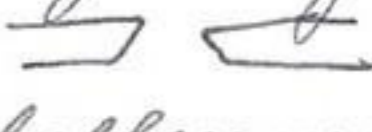
One Lincoln sparrow and a single cedar waxwing have appeared regularly at feeder at 402 Yorkshire. I have not seen other Lincoln sparrows but some flocks of cedar waxwings. As of this date there has been 5 Eng. sparrows, 1 robin that have died in immediate area of feeder. Other Eng. sparrows and robins have looked frail. Just recently both pine siskins and goldfinches have been irregular visitors to feeder. Tree sparrows (1/4 number of Eng. sparrows) have been almost as regular as Eng. sparrows. Slate colored juncos slightly less. <sup>one</sup> meadowlark twice in last week, none before.

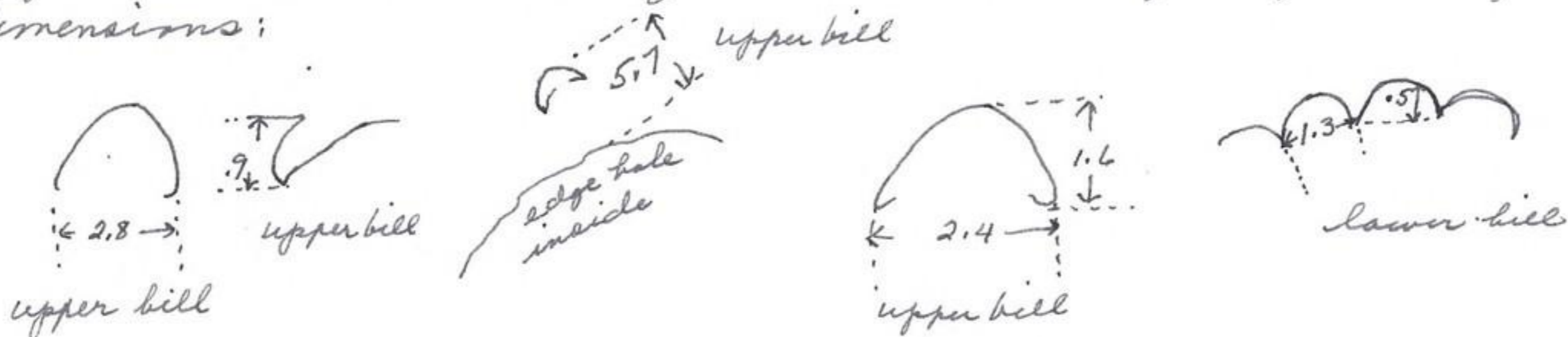
Leecompton, Douglas Co., Kansas

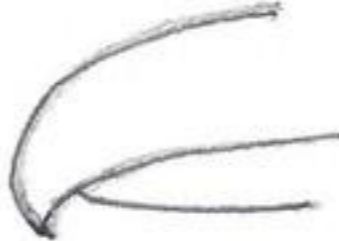
Feb 23, 1978

This AM. made complete survey of bald eagles on Kaw River below Delaware River to Lake View area. (see map of Jan 17 for recorded position of these eagles. 9:00 AM to 12:40, Temp 40-50°F, no wind. noted 7 adults and 6 immatures. One immature had considerable white in wings . No. 101 left and circled over feed to N then straight E to Kaw about 3/10 mi below Leecompton bridge in a ten minute flight. No. 100 left and flew up river for 7/10 mi. At position 96 were 2 male american mergansers in river. also 2 across river from eagle position 98. Took observations from N end dike area, <sup>Creek beginning of hillside road</sup> Oakly Creek and across from Delaware from mouth of Corn Creek. This creek still in ice and covered with snow. Confident that all eagles counted and no possibility of duplicates. It is evident that adults are fluctuating in number and immatures are constant.

Museum of Natural History, Univ. of Kansas, Lawrence, Kansas  
 Feb. 28, 1978

Lothers brought in 4 fronts of bird house in which the Eng. sparrow size hole had been enlarged by at least  $\frac{1}{3}$  or more. These house were placed on sides of barns and were unaccessible to mammals. The openings were, for the most part irregularly enlarged  and showed a beveled excavation angle  Imprint marks in the soft plywood (1/4 inch) were of the following dimensions:




The upper bill marks were on inside of hole while the lower bill marks were on the outside and edge. The upper bill was used as a holdfast whereas the lower bill was used to cut ~~the~~ and enlarge the operation. The action of enlarging was throughout the entire margin of the hole. The bill would have to have been a raptor with a length of upper bill to gape of at least 5.7 mm. Will check on the two most likely suspects, the sparrow hawk & screech owl. It is assumed that they were after a bird that was inside of the box. See notes of February 14, 1978 for sparrow hawk at martin house. The bill would have been of this order . This winter the sparrow hawk has been handicapped in capturing mammals by persistent snow cover and cold weather and they may have been forced to prey upon small birds for food.

402 Yorkshire Dr., Lawrence, Douglas Co., Kansas  
 March 2, 1978

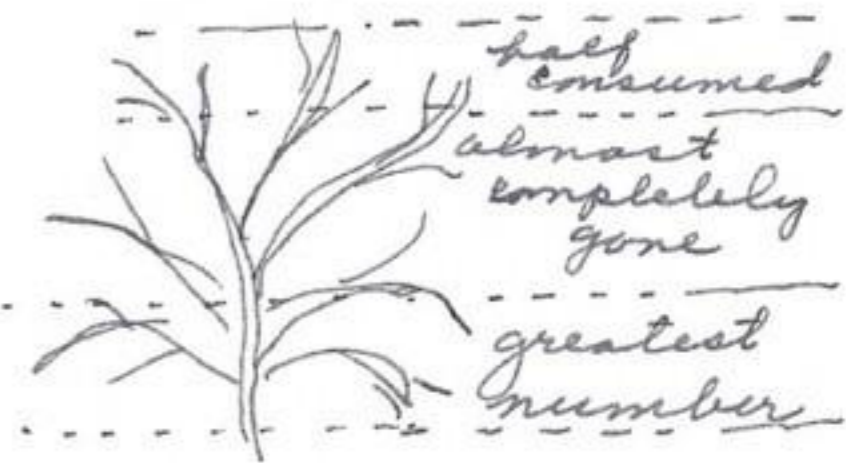
Snowed today and last night up to six inches. Temp below freezing.

March 2, 1978

High winds last night and some drifting of snow. At feeder today at one particular time (average numbers). 40 Eng. sparrows, 11 tree sparrows, 5 slate-colored juncos, 12 cedar waxwing and 6 robin, 2 bluejays, 7 starling, 7 goldfinch, 1 Harris sparrow and Lincoln sparrow. Other birds that have visited the feeder in the last week are chickadee, meadowlark, sparrow hawk, pine siskin. The

red-bellied woodpecker, yellow shafted flicker, downy woodpecker and hairy woodpecker have been irregular but observed this winter. The woodpeckers are noticeable fewer this year. Goldfinch eat sunflower seeds over other small seeds. Robins feeding on red <sup>leaves of</sup> cranberry bush are clumsy and awkward in bush whereas cedar waxwings are graceful and deft and remind one of a parrot, some hanging completely up side down or straight down fully extended. The cedar waxwing generally eat 3 berries of this size  in succession, then rest. The cranberries on bush have the following distribution.

The high snow allows the robins to feed on the berries on the lower limbs by standing on the snow. Both the robin & meadowlark eat corn, the robin, however rarely so. On the feeder there will be say 10 Eng. sparrows and 2 tree sparrows feeding compatibly and when outside disturbance occurs the Eng. sparrows will leave but the tree sparrows will remain, although taking stock of the disturbance for a second or so. The tree sparrows will chase each other off of the feeder but seldom an English sparrow, although it will occasionally do so. The Eng. sparrow being the aggressor is the usual reaction. Took several photos of birds. nos. 780303-1 of robins and cedar waxwing. no 780303-2 of tree <sup>sparrow</sup> & robin & <sup>junco</sup> goldfinch. no 780303-3 of <sup>Eng sp, junco, tree sp.</sup> meadowlark.



no 780303-4 of starling and 780303-5 general view.

Lawrence, Douglas Co., Kansas  
march 6, 1978

100 Canada geese and 6 snow geese passed SW over K.U. at 8:30 A.M.  
another group of 150 Canada geese and both snows & blues (12)  
passed over at 12:30 P.M. in some flight pattern,

march 10, 1978

Heard geese pass over house last night. There is a regular movement of geese passing to north but occasionally to SW which might be a local flight from the Clinton Reservoir to the Perry Reservoir. There are more people who seem to be talking about geese this year which might indicate an increase over previous years. A common feeding ground seems to be in fields S of Perry Reservoir.

Lawrence, Douglas Co., Kansas

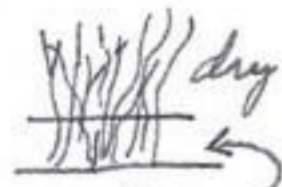
March 11, 1978

First day that ice and cover of snow left the tennis courts SW of Robinson Gym at K.U. Courts still wet. Snow geese flew over to north.

402 Yorkshire, Lawrence, Douglas Co., Kansas

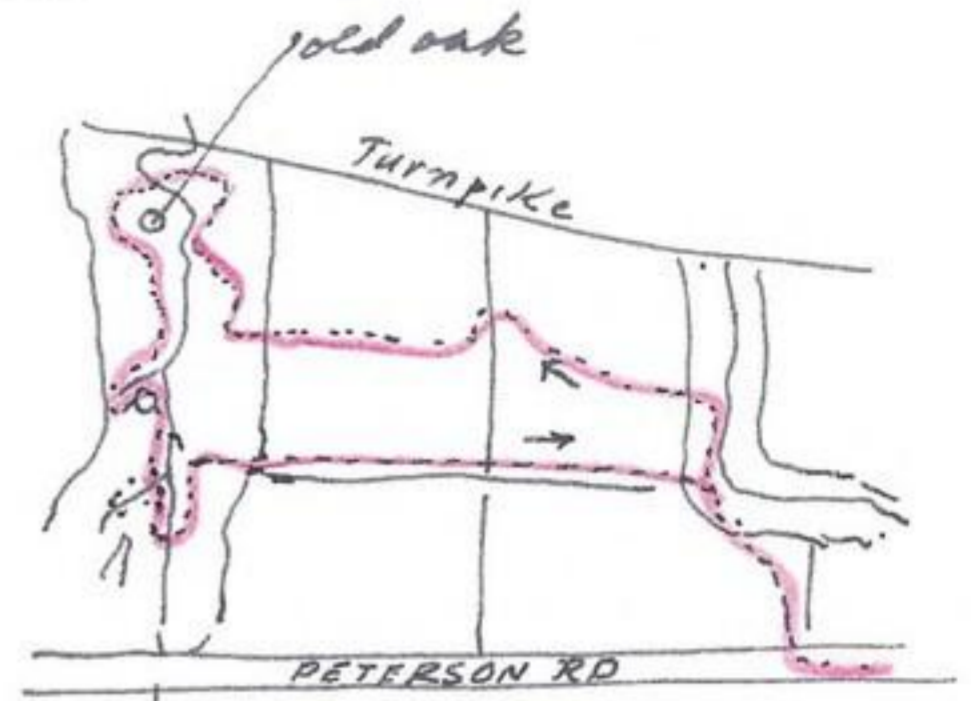
March 12, 1978

Made trip thru field NW of home and made few observations. Lower slopes of fields in standing water or supersaturated. Grass in all areas soaked at base

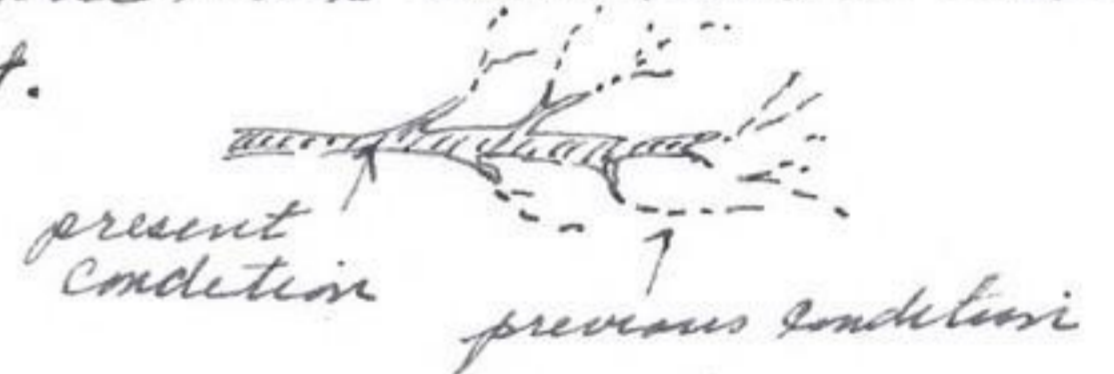


dry and dry above. Andropogon a brilliant yellowish white

Field mainly open with occasional snow mass from drifts, forests 95% in snow, some 10' deep with S<sub>1</sub> exposures free of snow. Creek 10 gals per second changed to three times that amount during the 2 hours I was in the field. A high water mark on bank indicated that the water had been <sup>(this spring)</sup> at least 2 feet higher than today. The old oak that had blown over several years ago (see previous years notes) and retained its leaves and brushy nature on the ground is now with all outer branches gone with main trunk and wide diameter main branches still intact.



The outer wood to 1-2 inches deep deep is missing or in stage of being removed because of its rotting condition. There is considerable fungus on tree but not the green fungus on older dead trees.



Three Neotoma nest under this tree and as long as I can remember they have been there. Collected a Colorado Angle Wing butterfly no. 780311-1 from edge of old pond surrounded by willow trees and grass. All side drainage systems, many not graded to the main creek are flowing waterfall like into the creek along snow and ice lined rivulets. At 1:35 P.M. a flock of 11 geese flew N (6 blues and 10 snows). Polygonia comma, butterfly on trip.

March 13, 1978

Last night <sup>(March 12)</sup> from 11:30 to 12:00 heard continuous calls of geese presumably snows, calls at least every 30 seconds and these calls from one to perhaps 4 geese. All moving N. Night misty with some fog. Today has been the first day that tennis courts on K.U. Campus SW Robinson gym have been dry, only occasional wet spot here and there.

4 mi. S.E. Foreyth, Taney Co., Missouri

reported on this date and place.

March 15, 1978. A bald eagle was

seen in a tree by a lake (noon).

402 yorkshire, Lawrence, Douglas Co., Kansas

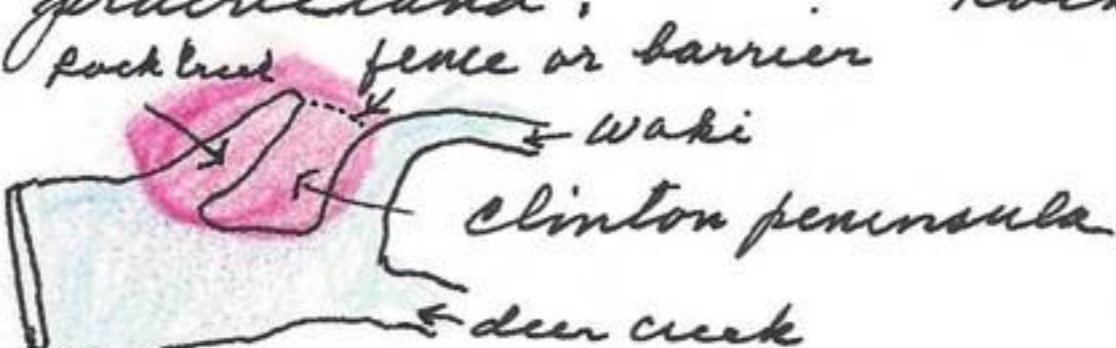
March 16, 1978

Last of winter ice on pond (original thick ice) left pond. It refroze tonight but with only a thin layer. As of today the juncos, tree sparrows, vesper sparrow, goldfinch and Harris sparrows, redwings and robins have not been seen at the feeder except an occasional tree sparrow. This has been a rather dramatic shift in population <sup>(increase)</sup>. The Eng. sparrows and especially starling are still in area and at feeder.

Clinton Reservoir, Douglas Co., Kansas

March 18, 1978

Drove back from Tapoka via S road. noted (in the Clinton Res. area) 4 redtails, 1 sparrow hawk and almost no small birds. At dawn observed approx. 14,000 snow geese (most of them seemed to be snows) and under 30 Canada geese. Temp. 82°F and the first high temperature this season. The Canada geese were chasing each other in the air at great speeds. <sup>most of the</sup> ponds in area still have winter ice. It is interesting to note that if you give geese and other wildfowl an undisturbed area, place to rest <sup>and</sup> on land & plenty of water nearby, that the geese will use the area. Such provision have not been met in reservoir areas. Geese and ducks at Perry Res. for instance are forced to rest on ice or a pond kept open in the ice away from feeding <sup>and resting</sup> grounds. Each reservoir should have a secondary reservoir where marshlands and be maintained throughout the year and held absolutely inviolate to man trespass. We have slopes and from vantage points or by T.V. circuitry can still enjoy the birds but at a distance. One branch of every reservoir should be set aside for waterfowl only, <sup>where is</sup> man completely excluded. These areas would become the greatest value ~~areas~~ of any reservoir. One of the greatest things that could be done is to reserve the Clinton Peninsula for buffalo, antelope, elk, deer in a native setting of prairie land. Rock Creek bay and sidehill forest <sup>could</sup> then become part of the <sup>inviolable</sup> ~~inviolable~~ areas.



402 yorkshire, Lawrence, Douglas Co., Kansas

March 19, 1978

noted that after the snow left from ground, <sup>from</sup> under the red cranberry bush, it exposed the fruit which had fallen from the bush and covered by periodic snows. The berries

fresh and much redder than those that remained on the tree. The ones left on bush is 1% of original number, those on the ground represent 18% and those eaten 81% of original resource. For the last two days a yellow-shafted flicker visited the suet at feeding area. During the winter it was a infrequent visitor having been seen on twice.

Clinton Reservoir, Douglas Co., Kansas

March 19, 1978

Checked geese at reservoir. Left home 3:35 P.M. 7.1 miles to overlook (15 minutes) ~~7.8~~<sup>5.1</sup> mi. to N end of dam or 7.6 miles from home. Dam 1.8 mile wide (dam proper). 4/10 mile to outlet gate, 14/10 mi from outlet gate to S end dam. From S end dam on hill grade counted 14,500 snows and blues (60% snows, 40% blues) 1500 Canadian geese, 4000 ducks including redheads, canvas backs, pintails, shovellers, scaup, pied-billed grebe, American mergansers, blue-wing teal, mallards, baldpates and widgens. There may have been others. The greatest number were scaup. These ducks were in open water near base of dam, rest of lake except 10% in ice, rapidly melting.

#02 Yorkshire, Lawrence, Douglas Co., Kansas

March 20, 1978

Yesterday noted 4 grackles at feeder. In evening after sundown but before twilight, 8 flocks of from 20-80 flew mainly SSE over home. but some SW. These birds did not seem to be governed by the fall roosting area NW of home. In the last 2 days there has been a decided increase in grackles.

March 24, 1978

Snowed last night and up to 4 o'clock this afternoon leaving about 3 inches of snow. Pond did not freeze. Decided increase in Eng. sparrows and starling and whereas juncos and tree sparrows have been scarce or rare in the last week there were 3 tree and 5 slate-colored juncos today. Few robins in area. 30°F while snowing but 27°F at 4:30 P.M.

March 25, 1978

Snowed some last night and occasionally until noon. The usual birds are back again to feeder in kind and numbers including 40 Eng. sparrows, 10 starling (occasionally), 12 tree sparrows, 9 slate-colored juncos, 2 Harris sparrows. Increase of birds associated with snow

4 mi. SE Forsyth, Taney Co., Missouri.

March 15, 1978 (see this date.) (insert)

A bald eagle was reported on this date and place. It was in a tree by a lake at noon.

Leecompton, Douglas Co., Kansas

March 30, 1978


Checked eagles <sup>area</sup> ~~side~~ along river (Kansas), 32 robins at home. Grackles throughout area of trip. Water high under bridge on causeway at Lake View. Sparrow hawk, at west end of Lake View Lake water forms a marsh N of where road crosses. Sparrow hawk at dike. No color in either the deciduous or riparian forests. Checked observation point at dike. One adult bald eagle, moved up river 11:40 P.M., also 2 woodchucks, 1 ring-billed gull, 1 snow goose (between 10:10 and 11:40). Water 9" below flood bank. No debris floating in river. 3 different kinds of butterflies. Along bank of river (above) counted 12 empty shotgun shells on ground from where some one had shot at target in the water. Eagles cannot tolerate this harassment. At usual place just before Oakley Creek observed a black phase redtail. It called. Also bluebird in area.

Kaw River, Leecompton area, Jefferson Co., Kansas

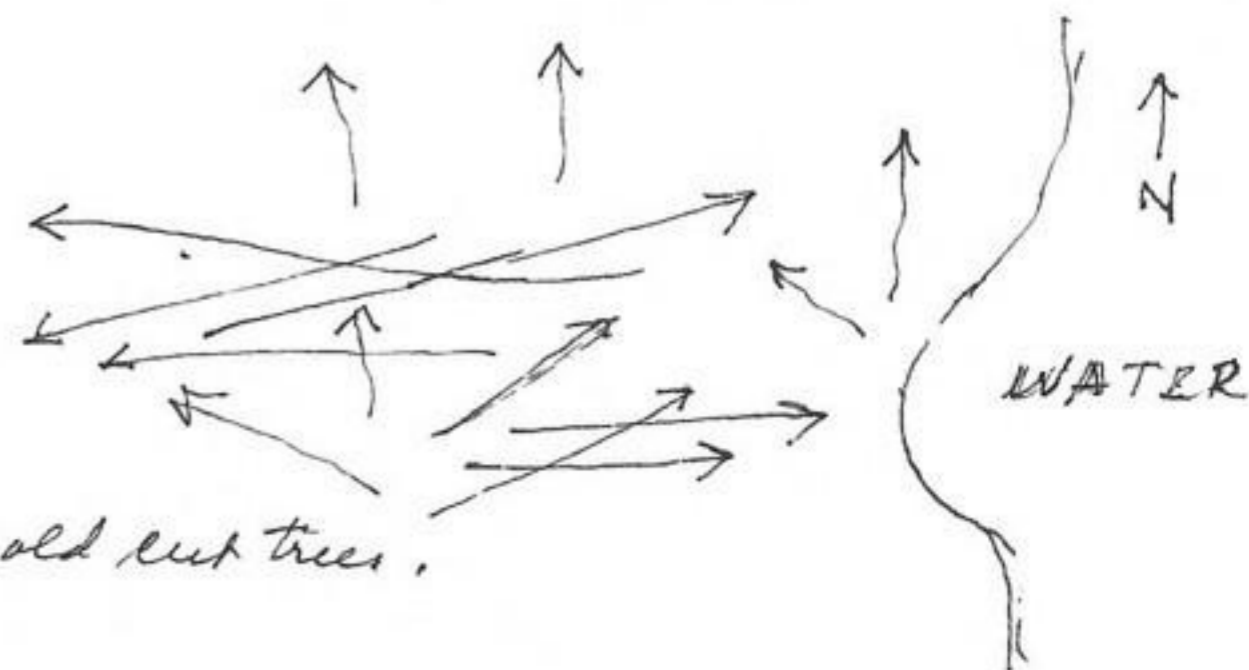
April 1, 1977

Checked N side Kansas River between Leecompton bridge and a point E approx. 8 miles. Will check for <sup>former</sup> bald eagle evidence (dead birds, roosting areas etc) and the use of trees as food by beavers. Left home 9:50 A.M. in Lawrence, arrived N side Leecompton bridge and by 9:57 started census at edge of river by the bridge. The entire area N of bridge at base was used by beaver, some 300 small trees, the largest 24" in diameter. 37 of the trees had been started but not cut thru. 90% of the cutting was of this winter's activity. Temperature 54° F, slight wind from the north, sky 95% clear of clouds, 10:08 3 beaver cut trees 66", 54", 50" <sup>circumference</sup> ~~diameter~~. Green plants on forest floor up 2" to 8". Redheaded woodpecker, Titmouse. 2 beaver cut trees 63" and 57" two beaver cut trees, the larger 60" in circumference. 10:19 Titmouse. on beaver cut tree 9" circum. 10:10 4 old beaver cut trees the largest 18" in circum. 10:25 5 trees cut by beaver in an area previously used by beaver. Largest of the 5 trees 80" in circumference. 10:28 One tree partly debarked by beaver in an area previously used



used by beavers. tree 58" in circumference, 10:34 4 trees cut by beaver in old area. The largest tree 6" in circumference - 10:36 Three trees cut in old area the largest 9" in circumference - 10:40 Eight trees cut in old area (by old area is meant that in the past, perhaps a year ago or so, beaver have cut trees in the area), 10:43 In  $\frac{1}{10}$  mi along edge of river in continuous growth of willow  there were 3260 trees cut or barked the largest 10 inches in circumference, mostly 2-3-4 inches in circum. 10:50 200 cut trees as extension E of above, 10:54 isolated cottonwood 54" in circum, partly cut, 11:02 12 trees on outer bank, 4 isolated and 35" in diameter. 11:05 isolated cottonwood 20" in circum, 11:08 2 isolated cottonwood 22" in circum, 11:09 isolated cottonwood 42" in circum, partly nicked, evidence of beaver having used and brought onto area, corn stalks and corn cobs, 11:14 bird life uncommon, 2 red-bellied woodpeckers, 2 tree sparrows and one cardinal 11:16 3 isolated cottonwood trees overaging 41" in circum, 11:18 isolated tree 21" in circum, 11:20 4 isolated trees averaging 36" in circum, 11:23 isolated cottonwoods 24" in circum. G. & owl and red-bellied woodpecker, Downy woodpecker, 2 species of butterflies 11:30 old area of cut trees but no new cuts, 11:31 isolated cottonwood 20 inches in circumference, 11:31 old cut tree with new nicked edge (new cut over old cut, bark), Red-bellied woodpecker, ring-billed gull, 11:34 2 old trees previously chewed upon and now new bark nicked, Tree 20" in circum, 11:36 3 nicked cottonwoods averaging 45" in diameter circum. No frog calls since beginning of census, 11:37 now directly N of house on south side of ~~fall~~ river, <sup>at base of fall where road leaves valley</sup> (where R.R. crosses road to follow ~~along base of ridge and along the river~~). 11:38 Isolated cottonwood 26 inches in circum eaten by beaver, 300 small cottonwoods some old cuts, By of barn and shelter on upper bank. Well developed grass in area. yellow-shafted flicker flew S across to other side of river.

11:55 active male. These mammals are not too uncommon in forests, 11:57 30 small trees cut by beaver, the largest 14 inches in circum, 12:00 10 large cottonwoods (average 24 inches in circum, but mainly same size) <sup>4</sup> in which barn was removed, 40 others down to 6" in circum plus approx 800 small trees. The 14 larger trees were felled as in diagram. 2 ♂ & ♀ woodducks, 12:07 Mobil oil Co. pipe line, E end of last beaver activity. 40 small trees N of pipe line, cut by beaver, some old cut trees.

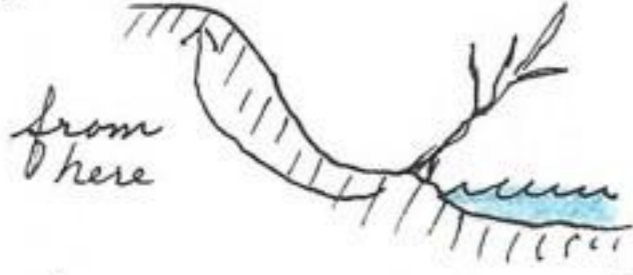


12:10 In 1/10 mi. 1800 willow trees (largest 20" circum) cut by  
 beaver, some seed of previous years. 12:16 first large patch of  
 horsetails. now directly N of the mouth of Oakley Creek. 12:20  
 cottonwood in water cleared of bark. 12:27 3rd large tree 50' W of  
 rock jetty. numerous tree cutting by beaver. 12:36 3 cottonwoods cut  
 by beaver averaging 16" in circum. By log jam. 12:37  
 first juniper. Occasional beaver cutting beyond. First Rana.  
 12:43 400' along river stripped of willow up to 9" in circum.  
 12:46 few bodies as basal central. Trails in forest mainly  
 raccoon and beaver. 12:51 Cars end, 2 roots 100' of willow cut,  
 by beaver. 12:55 100 beaver trees (willows) cut the 8 largest  
 28" in circum. Cardinal. 12:59 8 trees cut, largest 24" in circum.  
 1:01. 5 cottonwoods cleaned of bark up to 30" from ground. 1:03  
 4 cottonwoods nicked of bark the largest 42" in circum. Yellow-  
 shafted flicker. 1:05. no trees on bank of river for 400'. 1:07  
 First of riparian forest. One double cottonwood about ready to topple over.  
 In catkins. 60' E is a large cottonwood 10' 4" in circum. Bank  
 steep to river below. This tree would make a good setting for  
 photo shooting up river. Another good photo 100' N of above tree.  
 This area is N from high hill on S side river. 2 mawmy doves  
 of sand bars in river. 1:15 recorded marker place 8" from edge  
 of bank and loose. It will break  
 away with the minimum of erosion  
 of the bank. 1:23 beginning  
 of lower bench along river. 40  
 small trees cut by beaver, the  
 largest 12" in circum. 1:26  
 46 cottonwood trees cut by beaver  
 the largest 20" in circum. 1:28  
 6 cottonwood trees, <sup>cut by beaver</sup> the largest 16" in  
 circum. 1:29 4 cottonwoods, the largest 13" in diameter. 1:30  
 28 cottonwood trees, the largest 19" in circum. 1:36. 16 trees cut by  
 beaver, the largest 22" in circum. 1:38 9 trees cut by beaver, the  
 largest 16" in circum. Yellow-shafted flicker. 1:40 12 trees cut by  
 beaver, the largest 40" in circum. 1:43 10 trees cut by beaver, the  
 largest 54" in circum. 1:45 first side drainage. Great blue heron,  
 fence on E side drainage. 4 trees N of drainage 22" in circum. 1:48  
 6 trees cut by beaver 20" in circum. 1:51 opposite sand island 200' to SW  
 river log jam W end. Across from major canyon on side side of  
 river. First canyon W of hillside road. On N side river the  
 riparian forests are broad and extend N from river. Large tree cut by beaver



survey marker.

32" in circum. Another on 28" in circum. 2:00 5 trees cut by beaver averaging 30" in circum. 2:06 5 trees cut by beaver averaging 48" in circum. Now in as climax a riparian forest as will be found on N side river in this area. One tree 11' in circum. 2:10 5 trees cut by beaver, largest 36" circum. 2:13 cottonwood 13' in circumference. This area is directly N of point where the county road crosses the Topeka, Atchison Santa Fe railroad by a house which is about 300' E of where road leaves valley and runs along the base of the sidehill. 2:17 Cottonwood 17 feet in circumference. 2:22 8 trees cut by beaver 9" in circum. 2:23 24 trees cut by beaver averaging 9" in circumference. 2:24 Sycamore 7 1/2 feet in circumference. Riparian forest narrow here. One tree cut by beaver show that beaver reached at least 29" high to make upper cut. 2:28 tree slid from top of bank to edge of water. 2:30 Cottonwood 13' 7" in circum. 2:33

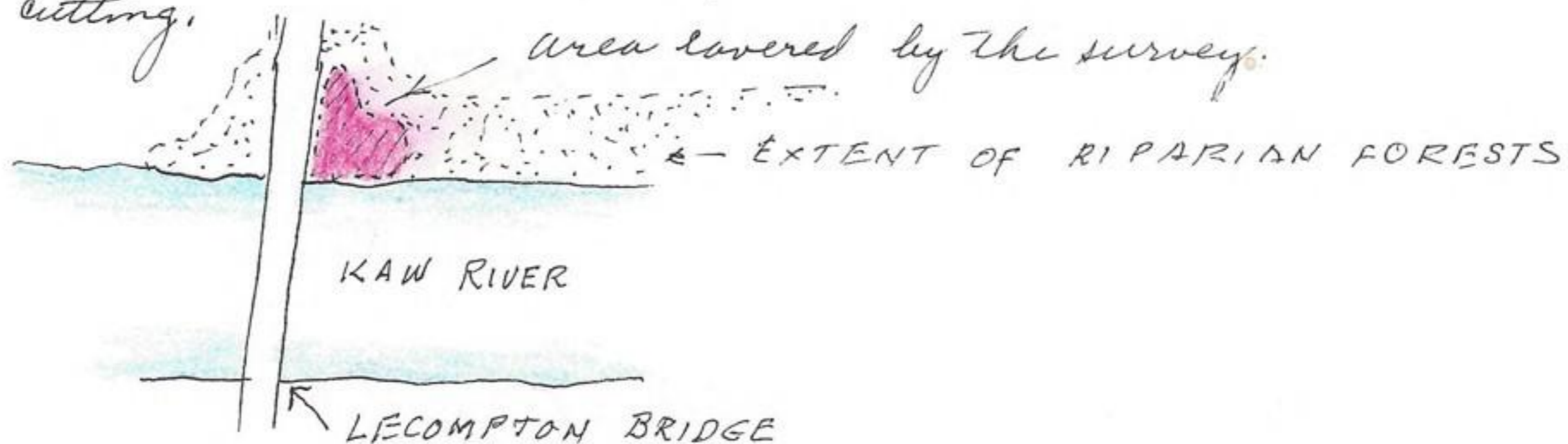


on N side of river where drainage enters valley on the S side of river at point of house just N of the house mentioned at 2:13. 2:36 drainage from N and barrier to travelling to E. The small trees on W side of drainage have been extensively used by beaver. Returned at 2:50 Will record only causal observations, not complete. Followed on valley side of riparian forests. 3 slate-colored juncos, 1 bobwhite, 22 bluejays in on flock. Sycamore 10' 3" in circumference. Cottonwood 12' 2". Wild onion up 1 foot. It is unusual that I have not seen the fox squirrel or gray squirrel. 6 Harris sparrows, robin. One fox squirrel 75' out onto plowed field. It ran back into the forest. Great-horned owl. 16 ♀ scaups both males and females.

Lecompton, Jefferson Co., Kansas

April 13, 1978

Took one of my classes to beaver area on N side of river, just E of bridge where we measured all of the trees cut by beaver. The tree could have been completely cut thru or in various stages of cutting.



measurements in mm (circumference)

150	220	170	255	175	60	110	115	70	60
280	140	680	135	190	160	150	50	80	55
190	150	130	120	305	60	50	90	125	290
160	140	45	70	270	55	220	90	100	100
130	170	136	70	340	170	150	130	85	130
160	220	80	105	150	190	200	90	65	170
215	310	180	95	220	290	55	90	70	65
158	105	280	115	280	100	55	110	70	140
113	500	130	140	400	100	70	150	90	10
166	230	120	85	150	100	50	140	50	260
257	220	90	100	120	100	50	110	95	80
130	110	496	130	180	130	35	130	80	130
149	230	105	100	120	180	95	80	70	315
118	100	220	110	160	130	80	50	55	170
173	110	175	975	125	142	95	80	105	150
215	360	100	190	160	200	50	40	130	55
230	170	70	170	300	150	45	110	75	168
300	160	60	147	300	170	85	50	110	150
183	270	168	200	310	130	85	40	125	185
421	140	190	150	250	70	160	90	90	310
386	520	212	55	370	65	110	80	160	165
220	110	110	100	200	100	40	90	150	130
275	113	130	210	210	50	90	140	160	52
200	160	100	270	250	140	80	100	160	390
375	165	88	168	320	130	100	140	80	100
592	150	156	170	265	260	40	380	260	220
223	100	134	150	165	300	135	80	70	10
210	130	52	390	170	140	90	90	440	170
205	170	85	190	210	150	125	90	90	10
236	100	96	185	130	290	95	120	320	170
155	120	100	180	160	260	95	40	410	300
125	120	87	150	140	130	85	130	110	250
280	310	55	230	80	140	50	170	85	65
150	115	126	330	240	80	110	90	125	80
495	470	285	310	540	40	50	110	210	140
170	90	140	210	210	130	55	120	60	
240	130	125	200	150	130	120	180	200	
200	50	110	155	310	235	80	180	18	
300	105	125	270	140	50	50	180	65	
200	140	128	260	410	315	115	65	110	

402 Yorkshire Dr., Lawrence, Kansas

April 15, 1978

First arrival in spring of the house wren and purple martin.

Lawrence, Douglas Co., Kansas

April 17, 1978

Fox squirrel eating seeds of elm. Small branches 4 inches long on ground below the tree.

Walters Pond, Perry Reservoir, Jefferson Co., Kansas

April 19, 1978

Observed 18 cormorant on pond.

Big Slough Creek (Bay), Perry Reservoir, Jefferson Co., Kansas

April 19, 1978

noted 2 osprey flying over water NE of bridge over Big Slough Arm of Perry Reservoir.

Walter Pond, Perry Reservoir, Jefferson Co., Kansas

April 26, 1978

Redhead ducks come in early and feed on pond for about an hour and then leave.

Mouth Delaware River, Jefferson Co., Kansas

April 29, 1978

Observed the following kinds of birds here: great blue heron, black-crowned night heron, woodducks, spotted sandpiper, mallards, a black-headed gull (Franklin?), ring-billed gull, cormorant.

Mouth Wakarusa River, Douglas Co., Kansas

May 7, 1978

noted ovenbird along edge river.

Lawrence, Douglas Co., Kansas

May 14, 1978

Ron Mickelberry of Auburn, Washington spent a summer on a salmon fishing boat in SE Alaska and reports:

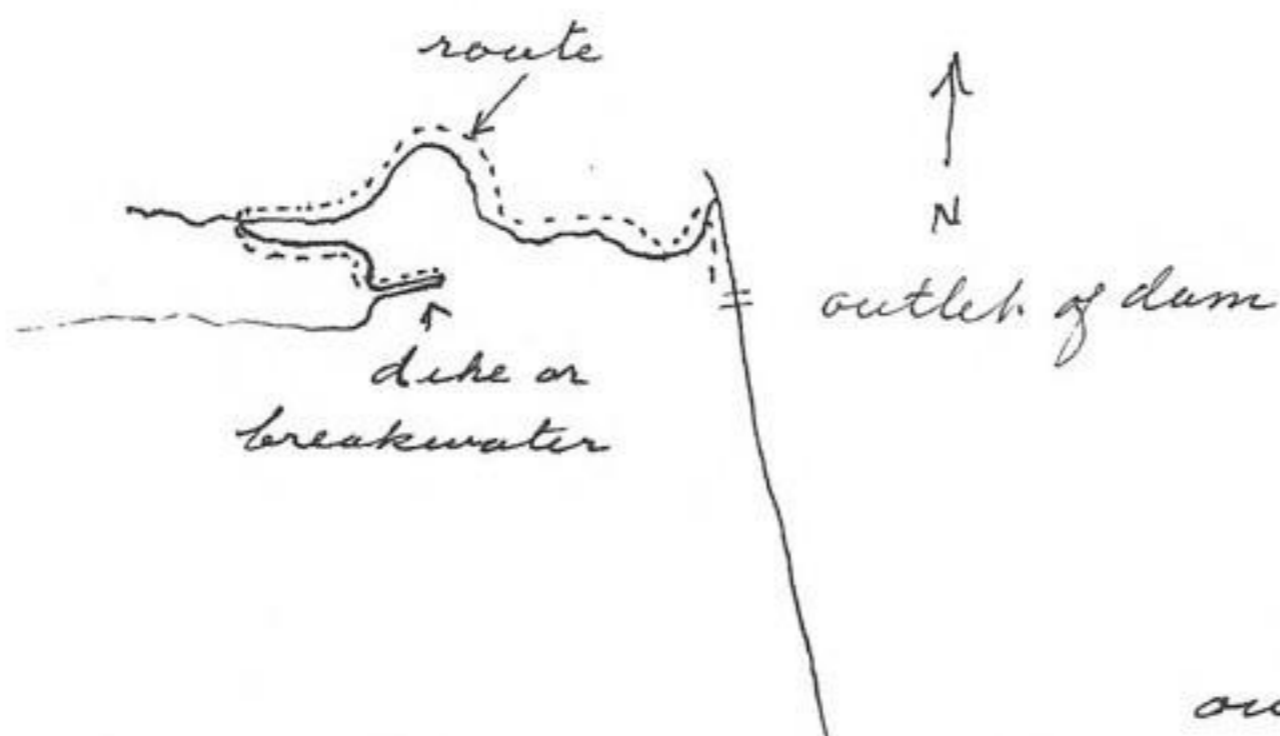
1. The most interesting place in order of decreasing value are: Excursion Bay, Tenakee Springs, Waterfalls and Eastern Passage SE of Wrangell.
2. W coast and eastern edge mainland for gillnetting, rest area for seining.

3. Fished most areas but especially from Elfin Cove east thru  
Ice Straits. Cross Sound is too rough for fishing, some waves  
4 feet <sup>in</sup> height
4. Walker Cove in Behm Canal has outstanding beauty.

Clinton Reservoir, Douglas Co., Kansas

May 21, 1978

made trip in NE part of reservoir from N end dam west  
thru 2 proposed boat ramps, to end of dike or rock peninsula  
S of main boat ramp. Water level relatively low. Left home  
9:40 A.M. at mileage 331.9. mileage N end dam 338.9 at 10:00.



Birds along route to W are:  
bobwhite, yellow-billed  
cuckoo, redwing black-  
bird, dickcissel,  
coyote tracks, deer tracks,  
mourning dove, raccoon  
tracks, meadowlark flew  
out to temporary island, barn

swallows. In an area 30' long at edge of lake the microtus  
trails were unusually numerous and coiled in one of the  
main runways was a matrix. It escaped to the water. Spotted  
sandpiper, ♂ ♀ mallard. The main lake is clear but the  
new isolated ponds are muddy. Cattails growing best in areas  
protected from sidehill drainage. 14 cedar waxwings  
were feeding in a tree and a yellow-billed cuckoo flew into  
the same tree. The waxwing momentarily reacted by shifting  
position but remained in the tree. At the W end of main  
drainage 7 crows, fox tracks in mud, great blue heron,  
killdeer, redwing attacked crow, 8 cowbirds, 6 cedar waxwings  
first sign of beaver tracks along edge of water, 3 mallards,  
♂ ♀ bluewing teal, E kingbird. Arrived E end breakwater at  
12:45. 8 cormorant. A cottonwood tree on S side of breakwater  
at top of rocks 7 1/2 feet high. Another one 5' high 100' on  
breakwater from main ridge to W, same level. Left 10:50.  
Bells vireo, redtail, thrush sp.?, ♂ ♀ cardinal, orchard oriole,  
bluejay, lark sparrow (has fast wing beat). mole active. Thrush  
song notes ascend. dickcissel. deer tracks 20' out from  
forest. A well beaten trail 20' into forest. Baltimore oriole,  
gold finch. Returned to outlet gates. Killdeer only bird  
along dam. Returned to car.

Clinton Reservoir, Coyote Head, Douglas Co., Kansas  
 May 27, 1978

Birds observed in the Coyote Head research area (just E of mouth Coon Creek Canyon now belonging to public schools) flicker, bobwhite, turkey vulture, meadowlark, yellow-billed cuckoo, crow, sawbird, killdeer, great crested flycatcher, field sparrow, coyote tracks, raccoon tracks, red-headed woodpecker, titmouse, rose-breasted grosbeak, mourning dove, deer track 88 mm long, robin, bluejay.

Clinton Reservoir, Douglas Co., Kansas  
 May 28, 1978

Made short house trip from N Clinton bridge down Wakarusa to west bridge and return. Some observations are: redwings approx 1 per 1/2 block, E Kingfisher mouth Coon creek. 4 turkey vultures in one group flew over. A redtail flew E with a snake (black snake) in talons. It alighted in tree on E side of Peterson pond. At first bridge 2 tree ducks and other kinds of birds.

Lawrence, Douglas Co., Kansas  
 May 28, 1978

Adult robins feed young on ground.

Clinton Reservoir, Douglas Co., Kansas  
 May 29, 1978

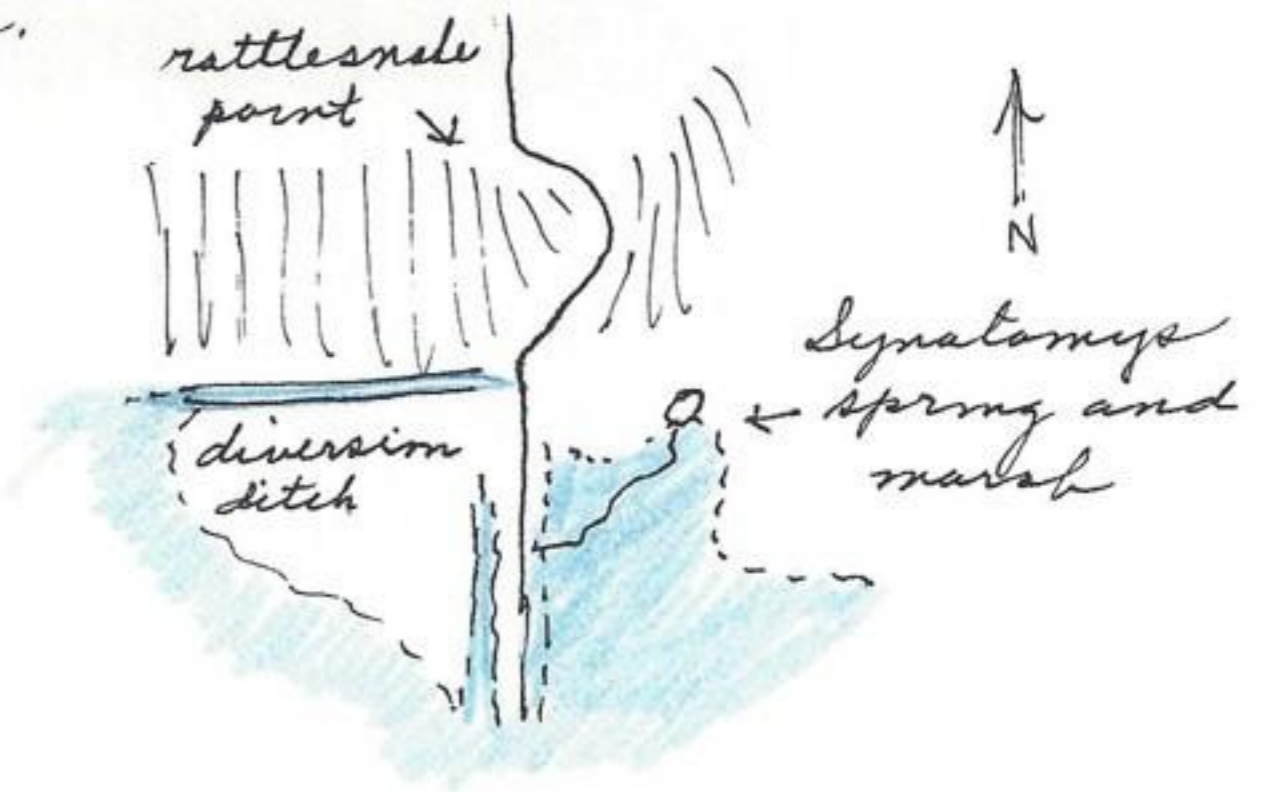
Left Civil War house at Boy Scout property and walked E along ridge S of Petersons Farm, thence to Peterson pond, thence return. Few observations are: collected glass snake no. 780529-1 from top of ridge at side of trail. It measured 235 body, 235 mm tail. The sun was warm on ridge (9:00 A.M.) Box turtle not far from lizard. This ridge is grasslands and should be preserved as such from any buildings, roads or trails, especially as a play hill. At Peterson pond collected a second glass snake no. 780529-2 measuring 145 body, 250 tail. It might be wise to check measurements of the two lizards above as measurements seem to be uncorrelated between body & tail measurements. On return to Civil War House observed redtail, red-headed woodpecker, lark sparrow, g. crested flycatcher, redwing, vultures, Bonaparte gull?, grackles. Before returning to car checked *Synaptomyza* bog at Rattlesnake Point which is at the base of hillside road that is the road moving E in front of Petersons Farm.

The water in the reservoir at this date covers  $\frac{1}{2}$  of the spring area and marsh used by *Synaptomys*.

Deer track here measured 82 mm.

60 grackles in loose flock among trees on hillside. Returned to

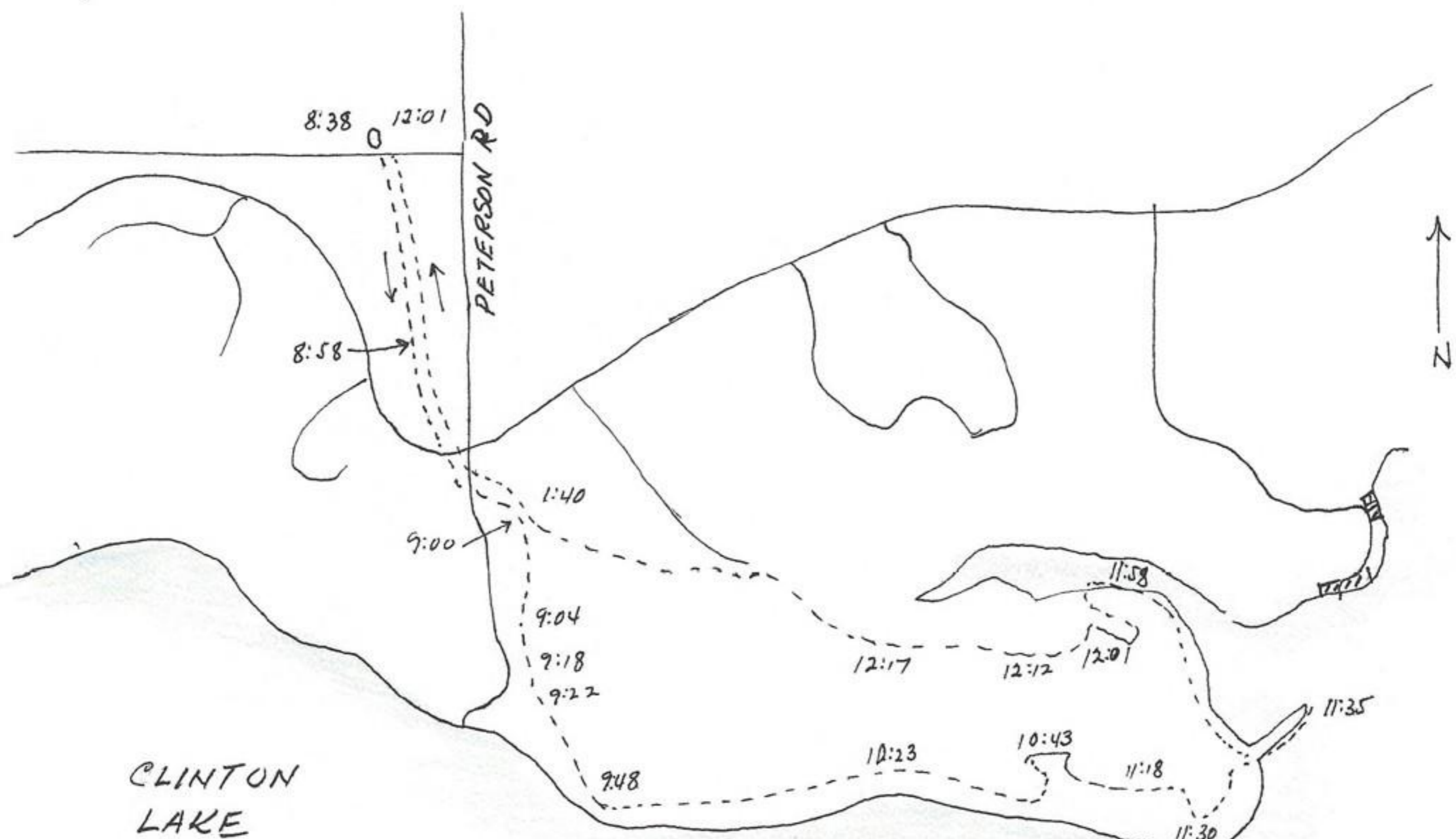
car 12:10 P.M.



Clinton Reservoir, Douglas Co., Kansas

June 1, 1978

checked birds and mammals in proposed State Park. Roads incomplete and water level in early stages. Left Lawrence 8:20 A.M. at 537.0 no clouds in sky, temp 54°F, no wind. Left Civil War House on Scout property at 546.4 at 8:38 A.M. Followed crest of ridge to E and observed 4 grasshoppers, 2 groups 2 each of dickcissels and one meadowlark. Point of ridge 8:58. It



would be advisable to grade out contours and eliminate all trails and roads except a single one man trail to point from the Civil War house. This ridge and all slopes to forests should be preserved as a prairie. It should not be used for hillside activity by children or man. Roads should be just inside trees not across open fields, and then only single road & one-way.



Dropped down to county road (Petersins) arriving at 9:00. 2  
 or pair of dickcissels, yellow-billed cuckoo, meadowlark.  
 9:04 started into drainage (forested). On a secondary road at  
 head of drainage were 20 angle wings on damp part of road. In  
 upper drainage some standing water and rocks in drainage (water  
 course) covered with green moss. 9:08 Convergence with another  
 side gully, heavily shaded and good growth of moss on rocks.  
 all second growth. 9:15 first pond. 9:18 Cardinal, one singing.  
 ♂ Baltimore oriole. 9:22 second pond down to 1 foot (12' wide)  
 raccoon tracks and deer tracks around both ponds. 9:24  
 open field. 9:26 Corps Engineer pushed delta from mouth of this drain-  
 age into dike running across mouth canyon. Fresh Coyote tracks.  
 along edge of lake a great blue heron flew W and chased by 4  
 redwing blackbirds. When the heron alighted at edge of lake,  
 the blackbirds discontinued their harassment of the heron. 2  
 yellow-billed cuckoo flew across open fields and the leading bird  
 was singing as it flew. Where Corps of Engineers had disturbed  
 the soil was one large mass of yellow clay mixed in black clay  
 9:30 Toward lake in open field a tractor had moved toward S  
 and sunk 2 feet into soil and had to back out. This was 100'  
 from lake and soil damp. 9:30 clear flowing water in ditch  
 at SE side of open fields. 9:40 28 butterflies flew W up shoreline.  
 8 redwing blackbirds flew across delta mainly toward the E side.  
 9:45 6 grackles. Lake following up drainage 200', dry land on  
 either side. Water in creek clear, no fish. 9:48 Old Synopteryx  
 marsh on SE side delta at point of ridge, now inundated by lake  
 water. 2 killdeer. Bullfrog edge lake. Left marsh area 9:55  
 2 killdeer. Shoreline dug by raccoon at edge of lake and inward  
 among dam to saturated soils bordering the lake. 10:00 2 grackles,  
 yellow-billed cuckoo, 2 crows. Not recording birds that I can see  
 or hear in forested hillside. Noted a *Diadophis* (ring-necked snake)  
 moving among the ground litter in the forest. 1:08 4 redwings, 3  
 bullfrogs along lake so far. Slope mainly in dogwood. Lake like a  
 mirror. At fence line trees down to water (lake) level. Can here  
 many grackles and some redwings in trees to N. Most of the grackles  
 were nesting in the trees. Cardinal, Baltimore oriole. 10:23 rock  
 fence (N-S) Lake 80' into trees. Driftwood in trees 7 feet above  
 water level so lake must have been higher at one time. Great crested  
 flycatcher. No wind, no vultures. 2 ♂ Baltimore orioles. 10:43 loading  
 platform of old rock quarry, 2 bluejays, field sparrow 2 good hackberry  
 trees here. 10:49 vantage point at top, can hear 1 mourning dove.

Brown thrasher, yellow-billed Cuckoo, indigo bunting. There are numerous black tern feeding in lake beyond. Left quarry at 11:10, Baltimore Oriole. 11:12 2 redtail hawks to E circling above ridge although no wind. On road to E (old abandoned farm road with grass 3 1/2' high. 11:18 road now up grade. 11:21 rock fence in forest. Collected *Thamnophilus* in forest 780601-1, body 495 mm, tail 83. 11:30 at marker no Sed 1-L. Second marker below no Sed 1-L-A. Continued down to edge of lake. 11:35 at E end breakwater. Lake like mirror. Left 11:45, Cardinal. Followed along edge of lake & forest and observed 5 yellow-tailed swallowtail butterflies, 4 black swallowtails, 8 white & 4 yellow-cabbage butterflies in one spot 10' from lake on dump beach. 11:55 now leaving drainage and going up slope of ridge. Crossed rock fence by large tree. Baltimore Oriole and yellow-billed Cuckoo. 12:01 bench on sidehill. 12:06 bluejay, cardinal, y. b. cuckoo, interesting butterflies. 12:07 no up at switchback. 12:12 top ridge among oaks at rock fence. Juncos in cut fields beyond. Titmouse, great crested flycatcher, Baltimore Oriole. 12:17 second field separated by fence row of trees. Field sparrow in forest but near edge, cardinal, Titmouse. 12:25 2 Cardinals 12:30 Reels Verso, indigo bunting, field sparrow. 12:35 drainage next to tree lined drainage, red-headed woodpecker. 12:39 tree line and rock fence. Road on other side. 2 ♂ cardinals out in <sup>open</sup> field and when approached flew into forest. 12:42 2 E. Kingbirds in field, one cardinal. 12:51 road forks to left, 2 cardinals. 12:56 road returns from circuit, Baltimore Oriole, 2 mourning doves, Killdeer. Field just harrowed by workers. 1:00 leaving new road to SW on old Co. road that goes to base of ridge. Baltimore Oriole. At this point met Mr. Walter Settles the State Park Ranger (Clinton State Park who lives at Overbrook, Kansas 66524. He informed me that many woodrats and copperheads were displaced when a rock fence was bulldozed. I informed him that the grass ridge to the W should be preserved as a natural area and was not to be used for development or recreation. They had in mind placing a water tower, amphitheater, road & recreation facilities on this ridge in connection with the trailer camp that is already being developed S of the ridge. I told him that <sup>an undisturbed</sup> ~~an~~ area would be in keeping with the general idea of making the Clinton reservoir area a natural area and experience.

Already the area was becoming more like a city park than a natural area. I will arrange to send him a set of museum reprints that could be useful in his area. I also told him that the road on S side ridge was most inappropriately misplaced and should have been just inside forest bordering the open fields, 1:40 top drainage, 2 ducksels, 143 Peterson road, 2 ducksels on E slope of ridge many microtine (*Microtus*) runways, meadowlark, 1:50 old superficial quarry E end ridge, 158 old tree stump on ridge, 6 grasshoppers along ridge. 2:01 car at Civil War House. Returned to Lawrence.

Lawrence, Douglas Co., Kansas

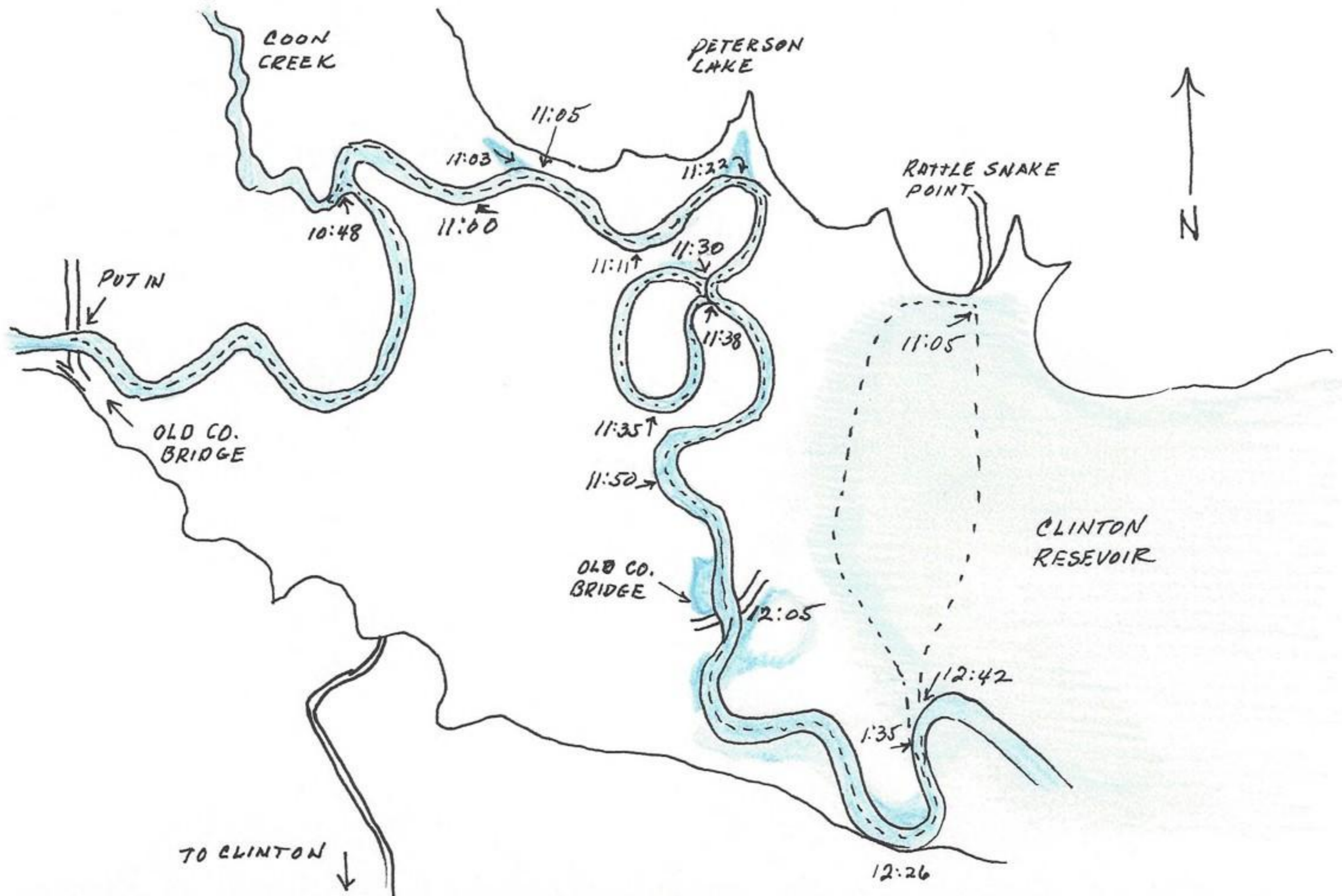
June 2, 1978

Mr. Chewing, a local bird observer, informed me that he had observed 2 Caspian terns at fish ponds N of Lawrence Air Port.

Clinton Reservoir, Douglas Co., Kansas

June 3, 1978

made canoe trip from old Clinton crossing (N of Clinton on the Wakarusa) down stream to lake, thence N to Rattle Snake Point, thence return to river channel and return.



Left home 8:45 A.M. at mileage 722.4. Put in at 733.7 at 9:15 A.M. Left  
 at 9:55 A.M. after loading equip, rocks at bow for ballist, electric motor  
 and battery. Slight breeze, temp 60°F, water 3 inches from surface  
 66°F. 10:00 A.M. Baltimore oriole, redheaded woodpecker, indigo  
 bunting, redwing blackbird. 10:08 A.M. ♂ & ♀ bluewing teal,  
 Baltimore oriole, dickcissel, redwing, redwing, water same height  
 or level as previous trip. 10:18 A.M. beaver activity slope of bank,  
 2 redwings, grackle, mourning dove flew over. 10:20 2 redwings  
 10:23 2 redwings, dickcissel. 10:28 3 redwings, 2 redwings,  
 2 redwings. 10:38 2 redwings, dickcissel, indigo bunting.  
 10:43 2 redwings, water smooth in certain exposures. 10:48  
 mouth Corn creek to left. Wakarusa in original channel and  
 what would be considered<sup>er</sup> high water, mouth Corn Creek with trees  
 still standing, back area at lake level. no flooding yet  
 in fields so far. (Birds and observations are essentially  
 recorded between time intervals). Indigo bunting and  
 yellow-billed cuckoo at mouth of Corn Creek. Redwing, redwing,  
 2 mourning doves flew over head, killdeer, 3 redwings, begin rain  
 11:00 S end meander, redwing, yellow-billed cuckoo, loved  
 heard bobwhite. 11:03 inlet. 11:05 N end meander at trees,  
 3 redwings. 11:11 S end meander, trees on S side. E kingbird,  
 redwing, yellow-billed cuckoo, 2 goldfinch, 2 redwing, 2 redwing,  
 2 redwing, mourning dove. 11:22 Peterson Lake or pond. 11:30  
 begin forest & W end meander. ♀ wood duck (S), 1/3 size.  
 11:35 S end meander, 11:38 N end meander, 2 woodducks,  
 chased by 4 grackles, 40 grackles one group, 3 redwings,  
 2 Baltimore orioles, great blue heron, 11:50 W end meander,  
 out of trees & river now toward E, 2 redwings, 2 redwings,  
 2 redwings, 3 woodducks (2 on water), heard first bull frog.  
 12:05 bridge. 8 ring-billed gulls, 4 cardinals singing, ♂ & ♀  
 bluewing teal, 1 wood duck, 2 wood ducks, rain letting up,  
 fox squirrel, yellow-billed cuckoo. 12:09 water in fields to E and  
 W, fox squirrel, 3 grackles, 2 redwings, great blue heron.  
 12:15 2 redwings, 1 grackle, 12:20 2 redwings, 2 grackles,  
 4 grackles. 12:26 hillside contact, still raining, great blue heron,  
 first fish jumped out of water. 12:30 more open water beyond river.  
 first spotted sandpiper, wood duck ♀ and 9 young 1/4 size parent.  
 5 grackles in field, ♀ and 5 young wood ducks, another ♀ 10' away,  
 4 redwings, 30 grackles in weed of flooded field. ♂ & ♀ mallard.  
 12:42 left channel and now to N across lake, ring-billed gull,  
 rain stopped, sun out, absolutely no wind, mallard ♀, 5 cormorants,

2 coot, beaver activity in flooded cottonwoods, 12 feet high. Lake a mirror, no hawks or vultures, 8 barn swallows. 11:05 Rattle Snake Point, 3 great blue herons, now return near edge vegetation (flooded) on W side lake. 4 Crows. 1:10 slight breeze. 6 Cattle egrets, 5 mallards, 1 gadwall, 6 bluewing teal, 8 redwings, 1:35 back in channel, 2 Turkey vultures. Peterson Lake 2:15 Cowbird. Arrived take-out 3:00, unloaded and put canoe on car, left 3:30 P.M.

Summary:

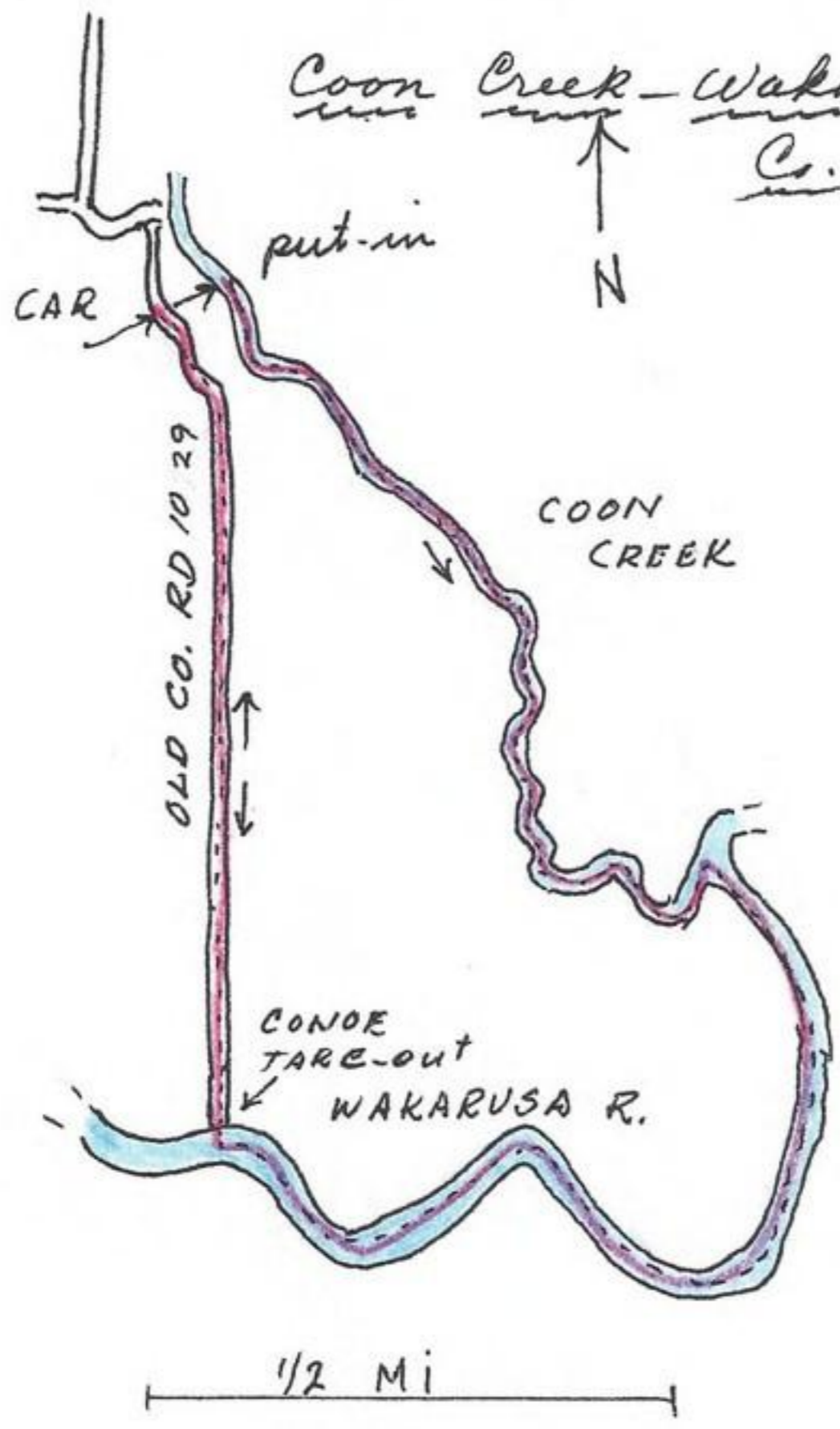
Baltimore Oriole 1-1-2 = 4  
 red-headed woodpecker 1 = 1  
 indigo bunting 1-1-1 = 3  
 redwing blackbird 1-1-1-1-2-3-2-2-2-2-1-1-3-1-3-1-2-2-2-3-2-2  
 2-2-2-2-2-4-8 = 63  
 bluewing teal 2-2-6 = 10  
 duckweed 1-1-1 = 3  
 grackle 1-4-40-3-1-2-4-5-30 = 90  
 mourning dove 1-2-1 = 4  
 yellow-billed cuckoo 1-1-1-1 = 4  
 killdeer 1 = 1  
 bobwhite 1 = 1  
 E Kingbird 1 = 1  
 goldfinch 2 = 2  
 wood duck 6-2-3-1-2-10-6-1 = 31  
 great blue heron 1-1-1-3 = 6  
 ring-billed gulls 8-1 = 9  
 cardinal 4 = 4  
 fox squirrel 1-1 = 2  
 spotted sandpiper 1 = 1  
 mallard 2-1-5 = 8  
 cormorant 5 = 5  
 coot 2 = 2  
 barn swallow 8 = 8  
 Cowbird 1-1 = 2  
 Crows 4 = 4  
 Cattle egret 6 = 6  
 gadwall 1 = 1  
 turkey vulture 2 = 2

Clinton Reservoir, 1 3/4 mi. W Headquarters, Douglas Co., Kansas

June 7, 1978

Three photos of gutted Civil War House (on Bay Secret property)

nos. 780607-1, 780607-2 and 780607-3. This beautiful building has been allowed by the council to be vandalized piece by piece and then burned. Former Chancellor Neek made the statement years ago that he would like to bulldoze the building to ground level. I hold them accountable for the destruction of this beautiful and historic building. I offered to reconstitute this building years ago but was denied. Two other photos 780607-4<sup>to E</sup> and 780607-5 of ridge to SW my hopes are that the Corps of Engineers will preserve this ridge as a natural grasslands. Scissor-tail flycatchers near ridge.



Coon Creek - Wakarusa River, Clinton Reservoir, Douglas Co., Kansas

June 7, 1978.

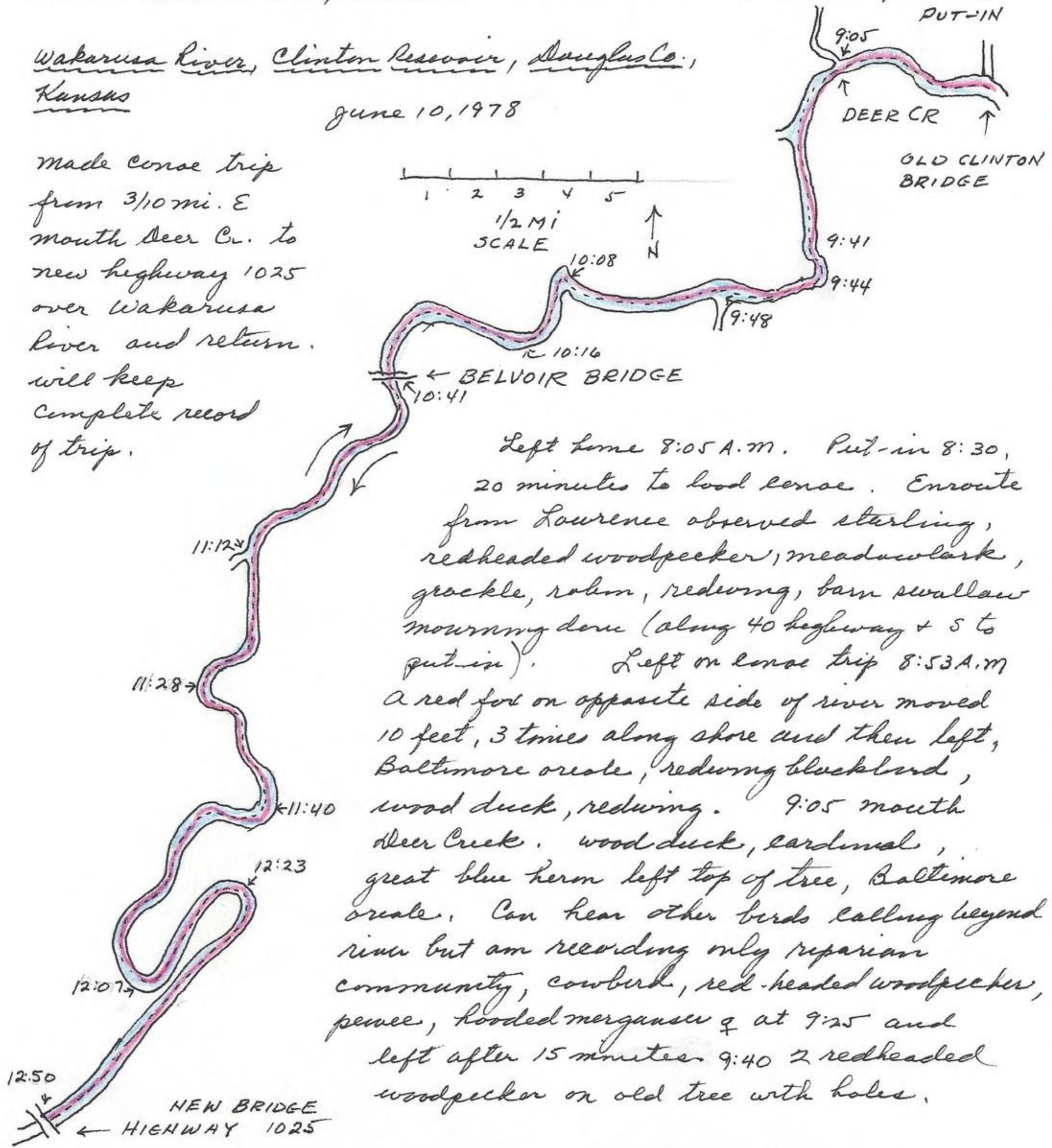
Left home 8:30 A.M. Rained last night, clouds to W. no wind. Arrived Coon Creek 8:50 P.M. 9:05 ready to leave in canoe. Problem was to find ballast for bow of canoe. no rocks available so used log. Put-in about 100' down stream from old bridge that used to cross Coon Creek. Left 9:15 A.M. Used no 2 speed on electric motor which is probably less than 1 mph. Saw red-headed woodpecker, indigo bunting, cardinal, cuckoo,

G.H. owl, 2 blue jays, yellow-billed cuckoo, 2 titmice, cardinal, no grackles, 2 titmice, bobwhite, red-headed woodpecker, chickadee, pewee, 1/10 mi from mouth of Coon Creek 20 schools of minnows per 50 ft., 3 redheaded woodpeckers call vigorously, 2 bobwhite calling from tree 50' up, yellow-shafted flicker, E Kingbird, as there were no grackles I am wondering if they come in later during the heat of the day. Mouth Coon Creek 11:00 P.M. There are many minnows in the Wakarusa but not as many or concentrated than in Coon Creek. Slight breeze in parts of river, mirrorlike otherwise, ducksell, redwing, redwing, air temp 87, water 1-10' deep 85°F (depth from top water and not

to bottom of river), bobwhite, redwing, duckussel, 2 redwings, redwing, 3 redwings, 12 barn swallows, redwing, kingfisher, 2 redwings, water down 22 inches, Cowbird, redwing, redwing, redwing nest in bush at edge water with 4 young 3" long each, 2 redwings. Arrived put-out 12:00 AM. Left canoe and walked back to pick up car, observed duckussel, redheaded woodpecker, redwing, duckussel, redwing, mourning dove, 2 lark sparrows, 2 crow. Grasshoppers along in groups and irregular along road. Arrived car, returned canoe and loaded then departed.

Wakarusa River, Clinton Reservoir, Douglas Co., Kansas  
June 10, 1978

Made canoe trip from 3/10 mi. E mouth Deer Cr. to new highway 1025 over Wakarusa River and return. will keep complete record of trip.



Left home 8:05 A.M. Put-in 8:30, 20 minutes to load canoe. Enroute from Lawrence observed starling, redheaded woodpecker, meadowlark, grackle, robin, redwing, barn swallow mourning dove (along 40 highway + 5 to put-in). Left on canoe trip 8:53 A.M. a red fox on opposite side of river moved 10 feet, 3 times along shore and then left, Baltimore oriole, redwing blackbird, wood duck, redwing. 9:05 mouth Deer Creek. wood duck, cardinal, great blue heron left top of tree, Baltimore oriole. Can hear other birds calling beyond river but am recording only riparian community, cowbird, red-headed woodpecker, pewee, hooded merganser ♀ at 9:25 and left after 15 minutes. 9:40 2 redheaded woodpecker on old tree with holes.

9:41 riffle in river. 9:44 now w., cardinal singing. Bank on  
 S side about 7 feet high, no frogs so far. yellow-billed  
 cuckoo. 9:48 drainage to left. 9:52 house wren, great blue  
 heron, yellow-billed cuckoo, black-capped chickadee, titmouse.  
 pewee, 2 crows. 10:08 now to S and some wind, great blue heron.  
 10:16 yellow-billed cuckoo, cardinal, 3 wood ducks. 10:33  
 first beaver cutting (fresh) of cleared bark and sticks on bank,  
 first bullfrog, yellow-billed cuckoo. 10:41 Belvoir bridge,  
 structure left, 2 crows, turkey vulture, redheaded woodpecker,  
 titmouse, 2 cardinals, raccoon tracks all along bank, titmouse,  
 black-capped chickadee, cardinal, indigo bunting, 2 titmice,  
 blue jay, fox squirrel, yellow warbler, titmouse, redheaded  
 woodpecker, red-bellied woodpecker 11:00 unusual locust  
 along side of sycamore, *Thamnophis* in water submerged  
 and waiting for prey. The raccoon control condition of bank in  
 many places by packing trail and moving soil, 2 crows,  
 grackle, yellow warbler, cardinal. 11:12 drainage to right.  
 house wren, E kingbird, 2 indigo bunting, yellow-billed  
 cuckoo, turkey vulture. 11:28 west end meander, water filled  
 flood drainage, more log jam. Cottonwoods rare. sycamore,  
 locust, maple, willow, walnut, cardinal, pewee, yellow-  
 billed cuckoo, cuckoo, cardinal, redheaded woodpecker.  
 11:40 E end meander, yellow-billed cuckoo, turkey vulture,  
 cardinal, 6 turtles on logs so far. 11:50 g. h. owl, yellow-  
 billed cuckoo, upper flood level now expressed on side of banks.  
 red-eyed vireo. 12:00 trench thru bank. 12:07 W end  
 horseshoe meander. Beautiful willow on point bar, good  
 forests, titmouse, blue jay. 12:23 E end opposing meander.  
 2 cardinals, blue jay, yellow-shafted flicker, house wren.  
 12:40 cut thru river bank to right, slight turn in river,  
 2 cardinals, house wren. 12:50 bridge, <sup>on new highway 1025</sup> rocks gray under bridge  
 but brownish tan elsewhere where exposed to sun. On  
 way back observed barn swallow, ♀ and 10 young wood ducks,  
 ♀ ran across river back and forth 3 times, young crossed river  
 and went into vegetation, length of young approx. 2 1/2 length  
 of body. Trees inundated and seem to be vegetatively  
 normal. 2:05 Belvoir bridge. 2:10 green heron. 2:33  
 riffles (position of old riffles). 3 woodchucks, fox squirrel  
 on isolated log jam but able to reach land by limbs.  
 Arrived 3:00 P.M. The hooded merganser was 1/10 mile  
 W of put-in.



## Travel time summary:

6 miles up river at 4 hr time or  $1\frac{1}{2}$  miles per hour, return trip 2 hours or 3 miles per hour.

Summary birds and mammals: (Wakarusa river)

red fox 1 = 1

Baltimore Oriole 1-1 = 2

redwing blackbird 1-1 = 2

wood duck 1-1-3-11-3 = 19

cardinal 1-1-1-1-1-1-2 = 8

g. b. heron 1-1-1 = 3

Cowbird 1 = 1

red-headed woodpecker 1-2-1-1-1 = 6

peewee 1-1-1 = 3

hooded merganser 1 = 1

cardinal 1-2-1-2 = 6

yellow-billed cuckoo 1-1-1-1-1-1-1-1-1 = 9

house wren 1 = 1

black-capped chickadee 1-1 = 2

Tetmouse 1-1-1-2-1-1 = 7

Crows 2-2-2 = 6

(activity)  
beaver 1 = 1

bullfrog 1 = 1

turkey vulture 1-1-1 = 3

raccoon tracks all along

indigo bunting 1-2 = 3

blue jay 1-1-2 = 4

fox squirrel 1-1 = 2

yellow warbler 1-1 = 2

red-bellied woodpecker 1 = 1

Thamnophilis 1 = 1

grackle 1 = 1

house wren 1-1-1 = 3

E. Kingbird 1 = 1

turtles 6 = 6

g. h. owl 1 = 1

red-eyed vireo 1 = 1

yellow-shafted flicker 1 = 1

green heron 1 = 1

Wakarusa River, Clinton Reservoir, Douglas Co., Kansas

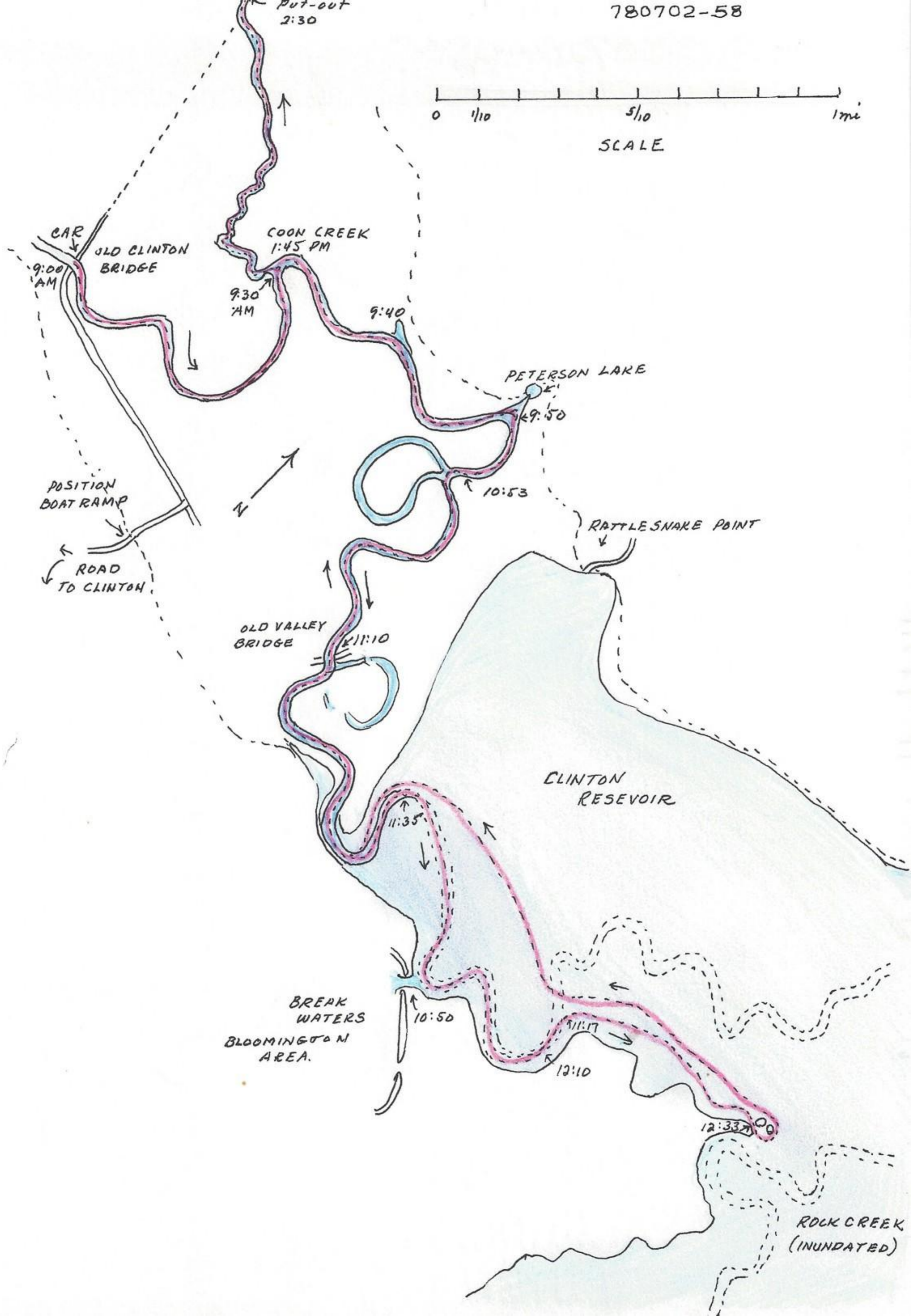
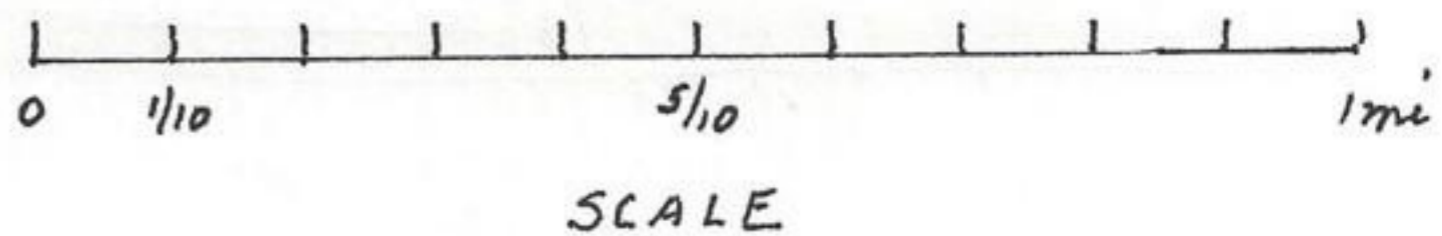
June 18, 1978.

James L, Debbie and I made canoe trip up Wakarusa River from old bridge N of Clinton. Left 9:30. at mouth of Deer Creek ran into a heavy concentration of butterflies *Asterocampa celtis* (B & Lee), hackberry empress. This butterfly is from 2 to 2 1/4 inches wingspread with wings light (faded) brown. Front wings have mostly light or clear spots from the middle of the wings to the margin, while hind wings have the brown spots of various sizes. at one time there were 35 individuals on the canoe, 200 per 50 feet in air, logs completely covered with the butterflies. They alighted and covered our head and shoulders. Also observed 2 wood ducks, 2 great blue herons, 1 green heron. The butterflies were localized on river (1/10 mile concentrated, few before and beyond).

Clinton Reservoir, Douglas Co., Kansas

July 2, 1978

made canoe trip on Wakarusa River from old bridge N Clinton, to most distant projection of land NE Bloomington between Rock Creek and Wakarusa valley. Left home (462 Yorkshire Str.) at mileage 318.8 at 8:20 A.M. after 25 minute loading of canoe and equipment. 20 minutes to put in at old bridge over Wakarusa N of Clinton. Left on canoe 9:00 A.M. Will keep complete list of animals. Both air and water temp 80°F, no clouds. Redwing blackbird chased yellow-billed cuckoo, redwing, dickcissel, 2 redwings, redwing, dickcissel, 3 redwings, 3 redwings, 2 redwings, redwing, 3 redwings, 2 redwings, 3 redwings, dickcissel, redwing. 9:30 mouth of Coon Creek, 8 grackles at mouth, great blue heron left Coon Cr. and was chased by redwing but the heron did not react to near contact several times, 5 redwings, gentle breeze from E. Redwing, cowbird, 2 redwings, redwing, 2 redwings. 9:40 embayment along hillside, bobwhite, barn swallow, yellow-billed cuckoo flew S across valley. 3 redwings, redwing, 2 redwings chased grackle. 9:50 Petersons pond or lake (now drained and being modified for swimming area. Weeds beginning to grow in mountain of sand brought in for beach, 3 crows. 10:53 Beginning trees along river in valley (first island of trees), great blue heron, 2 red-headed woodpeckers at old tree (dead), black-capped chickadee, brown thrasher, 15 grackles one group, yellow-billed cuckoo, 2 red-headed woodpeckers, great blue heron chased by redwing and flinched and called all along the chase.



2 redwings, 8 grackles one group, 5 redwings. 11:05 out of island of trees, dickcissel, 3 redwings, 3 gold finches, 2 redwings, 2 grackles, 2 redwings, 3 grackles, 2 redwings, wood duck 1/10 mi before bridge abutments. Stinging nettle invading river banks. 11:10 old bridge abutments (bridges in area have been blasted and abutment remain only). yellow-billed cuckoo, bluejay 11:15 out of trees, 2 great blue heron, grackle, killdeer, grackle, redwing 11:25 spotted sandpiper, 2 redwings, great blue heron. a great blue heron and a turkey vulture on same limb of large sycamore tree and only 15' apart. 11:35 N end meander in lake and where old CO road surfaces on N side river. From here can count 23 great blue heron along W & N shore of bay to N. 2 redwings. 11:50 entrance boat harbor. From top of breakwater can see 5 wood ducks flying at can hear & calling in flooded vegetation in lake to N. The old meander is now under the breakwater. Water level to base of boat ramp in harbor. 12:10 cliff cut meander. The stratigraphy of bank is black, gray, yellow. 2 redwings. 12:17 now E. 1 bluewing, 2 great blue heron in tops of small inundated trees. 2 mallard, 3 wood ducks, 2 great blue herons flew by. 12:33 between island where lake goes into Luck Creek drainage. Only 3 bull frogs the entire trip so far. Now returning. Temp. water in sunshine 87°F, shaded area 86°F. In shade of trees at surface of water 86°F, 10" deep 86°F. In sun 87 surface, 86 10" deep. There is only a degree difference but when one drags his feet and legs in the water the deeper water is noticeably colder. In Wakarusa Channel, Temp in sunlight away from trees 89°F and 10" deep. no raptors today. Cattle egret (4) with considerable black. Little blue heron (3), Kingfisher in island of trees nearest Peterens pond, also turkey vulture in flight. E. Kingbird, 1:45 mouth Coon Creek and will navigate to bridge and then walk back to car and return it. Many grackles, probably 200 in trees along Coon Creek. They seem to come in here in hot part of day for resting. 2:30 put-out about 1/10 mi down Coon Creek from old bridge. 3:05 back to put-in on Wakarusa river. Many water beetles in river and noticeable in sunlight. Back to car 3:20 P.M. Returned to canoe, loaded and left at 3:45 P.M. 2 lark sparrows at put-out.

Travel summary: 5 1/2 mi out 3:33 time out 11.2 miles from home.  
4 9/10 mi back 2:57 time back

Total = 6 1/2 hrs canoeing time, 10.4 miles

Battery (12V) recharged 9 on charger at end of 10.4 mi. trip.

## Summary animals:

redwing blackbird 1-1-2-1-3-3-2-1-3-2-3-1-1-5-1-2-1-2-2-1-2-2-5-3-

2-2-2-1-2-2-2 = 64

yellow-billed cuckoo 1-1-1-1-1 = 5

dickcissel 1-1-1-1 = 4

grackles 8-1-15-8-2-3-1-1-200 = 239

great blue heron 1-1-1-2-1-1-23-2-2 = 34

always some chance of duplication

cowbird 1 = 1

bobwhite 1 = 1

barn swallow 1 = 1

crow 3 = 3

red-headed woodpecker 2-2 = 4

black-capped chickadee 1 = 1

brown thrasher 1 = 1

gold finch 3 = 3

wood duck 1-5-4-3 = 13

bluejay 1-1 = 2

killedeer 1 = 1

spotted sandpiper 1 = 1

turkey vulture 1-1 = 2

mallards 3 = 3

bullfrogs 3 = 3

Cattle egret 4 = 4

Little blue heron 3 = 3

kingfisher 1 = 1

E. Kingbird 1 = 1

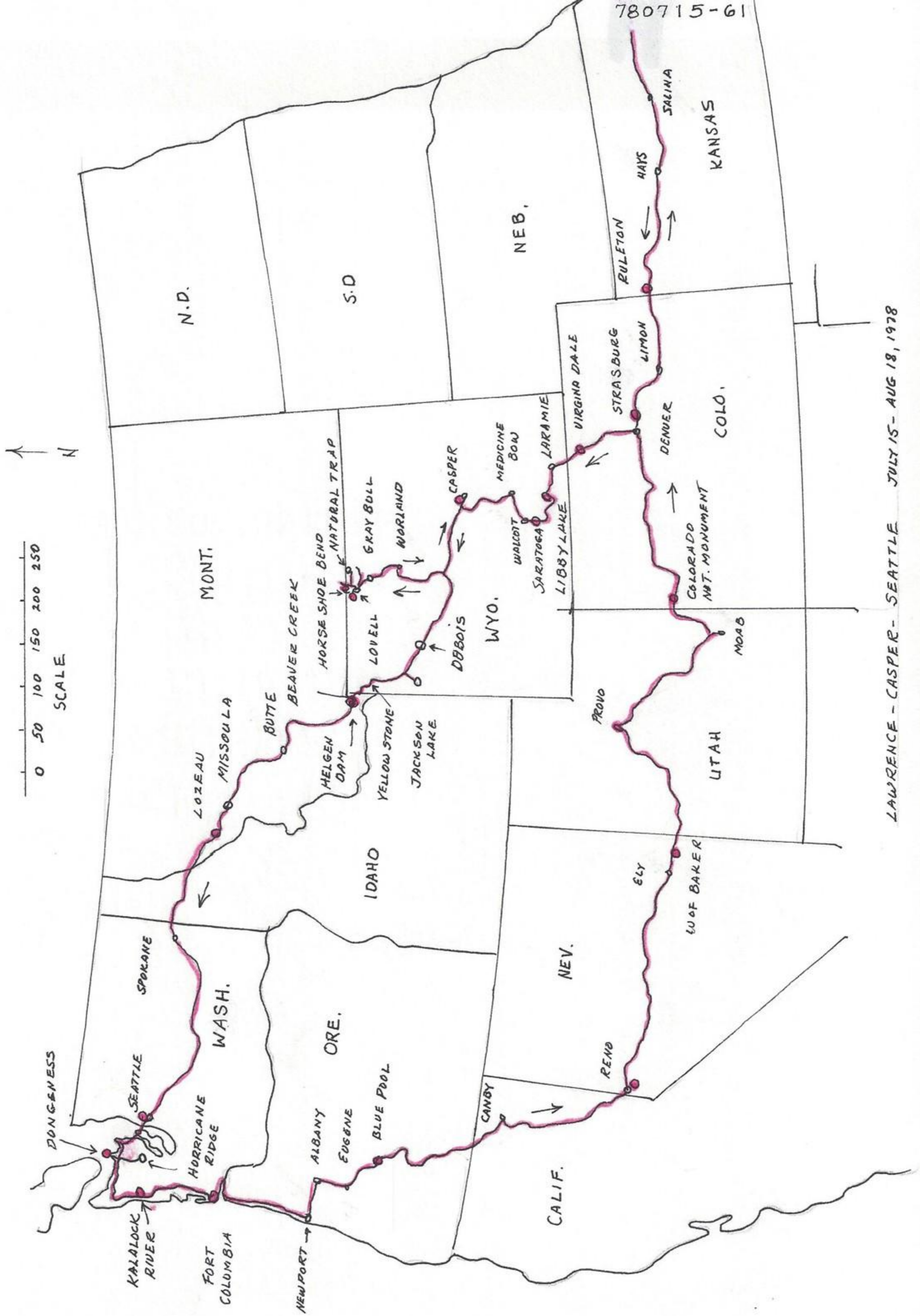
lark sparrow 2 = 2

Informant said cattle egret and anaery egret in area last year but not this year.

Trip from Lawrence  
Seattle, Washington

July 15 to Aug 18, 1978

Prepared for trip w to Casper and Seattle to see Chris + Pally (Annette and Mary). Some items frequently overlooked are: gun shells, 2 recorders (new batteries), binoculars, camera, ex. meter, Celestron, car window adaptor, tripod, journal paper, pen, ink, coll. equip, literature, maps, fire extinguisher, flashlights, water container, note-books, knee boots, hiking shoes, hats, rain gear and winter clothing if warranted, skull adapter, hatchet, tow chain, car title, address book, knife, compass, matches, fish license, drivers license, reading light for trailer, fuel gas tanks (butane), 14 ton jack, hydraulic, 220 adapter for trailer.



LAWRENCE - CASPER - SEATTLE JULY 15 - AUG 18, 1978

Left at mileage 88617.3 at 11:00 A.M. no wind, high cirrus clouds 50% of sky. Will record complete census of birds and mammals. English sparrow, W. Kingbird, house wren, grouse, robin, catbird (all at home), meadowlark, 627.4 Turkey vulture, mourning dove, dickcissel, red-wing, no evidence of brownwing from drought, everything green. 632.1 barn swallow. 42.0 highway 75, all the way on still road, very few birds. 643.2 475 by-pass. Wabamsee<sup>Co.</sup>; 659.2 at 12:05. Flint Hills all in green, mill Creek average. Birds extremely rare along route. 699.8 2 turkey vultures. 702.0 Clark Creek. 707.0 Smoky River. Fields plowed increase at about Abilene. 740.0 Saline Co. line. Will keep list of all birds across the Co. Eng sparrow. 749.1 redtail, grass shorter and less green than E Kansas but in good condition. 752.1 Saline River, 2 Eng sparrow. Temp 91° at Salina, humidity high. Swallow. 763.6 Mulberry Creek. 771.0 Lincoln Co. line. The last Co. census of Saline Co would indicate birds rare on Great Plains. Deedee, country side not dry. 776.0 redtail hawk 801.9 Russell Co. line and will take census across Co. (3:30 P.M.) redwing, redwing, barn swallow, W Kingbird, 2 barn swallows, just out from under clouds to blue sky, mourning dove, ponds moderately full, no ducks so far, 3 barn swallows, 2 mourning doves. Increase in wind. meadowlark, redwing, redwing, 2 barn swallows, 2 mourning doves, 3 swallows. 832.2 Ellis Co. line and will continue bird census across Ellis Co. Barn swallow, 840.1 turkey vulture, swallow, redwing, barn swallow. 865.8 Trego Co. line (mileage included trip to Ellis and back). Will continue census across Trego Co. swallow, at 5:10 P.M. 874.2 first whirl wind. mourning dove. 873.8 fresh striped skunk road kill, at Ogallala exit. Swallow, 4 swallow, swallow, 2 swallows, ponds almost dry, swallow. 896.5 Cave Co at 5:50 P.M. 4 swallow. Will continue census across this Co. swallow, meadowlark, Eng sparrow (ordinarily Eng. sp + starling are not included in native bird census). Mileage at Grainfield 916.0 at 6:20 P.M. and end of census. now continuing on highway 40<sup>to n</sup> and will check to see if there is differences in kinds and numbers of birds. meadowlark. meadowlark, mourning d., 3 redwings, redwing, striped skunk road kill, W. Kingbird, 2 Eng sparrows, 2 W Kingbirds,

2 W Kingbirds, Lark bunting 24.4 Grinnell on 40 highway.  
 swallow, swallow, W Kingbird, few small sparrows, 2  
 mourning doves, W Kingbird, W Kingbird, W Kingbird,  
 W Kingbird, 5 swallows, W Kingbird. 33.9 back on  
 highway 70 at Oakby, at 6:44 P.M. and end of census. First  
 pheasant at Colby turnoff. With fading lights continued  
 to a <sup>lost</sup> rest area <sup>in Kansas</sup> and arrived at 8:00 P.M. at mileage 8905.0  
 having travelled 388 miles today.

Reuleton, Sherman Co., Kansas

July 17, 1978.

min. temp 65°F, rain and high wind last night. Left at  
 9:00 A.M., rain stopped and now sky clear, and forecast of a  
 hot day. 13 lined ground squirrel in buffalo grass. 1 and  
 1 1/2 high, curly and brownish in color. Grasshoppers  
 along shoulder about 10 per 10' and local in occurrence.  
 890 12.4 Colorado State line. 026.9 first 13 lined ground  
 squirrel since morning, also a cottontail. Temp. 87°F.  
 045.0 now in artemisia. Birds rare today as they were  
 yesterday, especially during latter part of the day. 094.0  
 striped skunk rd. kill and opossum. 096.8 10 antelope.  
 098.4 redtail. 101.2 Limon at 10:00 A.M. 116.2 since  
 Limon has not seen birds of any kind. 125.3 3 ground  
 squirrels in 2 miles and none before or after. 132.6 <sup>starting at 11:00 A.M. mt. time</sup> dropokae  
 Co. line will keep complete list of birds. Swallow, 141.3  
 meade Bijou Creek, no birds so far. mourning dove. 160.2  
 spit 88. 232.8 first Calif. gull. at meade turnoff. 292.4  
 antelope, 296.4 Virginia Dale. Continued up highway 287  
 to Virginia Dale Camp arriving at mileage 89299.9 or  
 294.7 miles today. Set 50 traps among ponderosa pine,  
 mainly around rock outcroppings. Artemisia in area.  
 while on trapline observed small cottontail that looks  
 like a rock rabbit, several chipmunks, several actively  
 used mule deer beds, aspen trees and cliff rose important  
 plants in area. Grass rather short in open areas and  
 longer among rocks and among ponderosa pines. This area  
 is of unusual <sup>scenic</sup> ~~scenic~~ country which is on a plateau of hills  
 and swales and unusual granite outcroppings of a reddish  
 color. The savannas are sagebrush and the slopes and  
 plains around rock of ponderosa and aspen trees. It  
 is a place where one can travel for great distances  
 and just about select the grade of travel.



Virginia Dale Camp, Larimer Co., Colorado

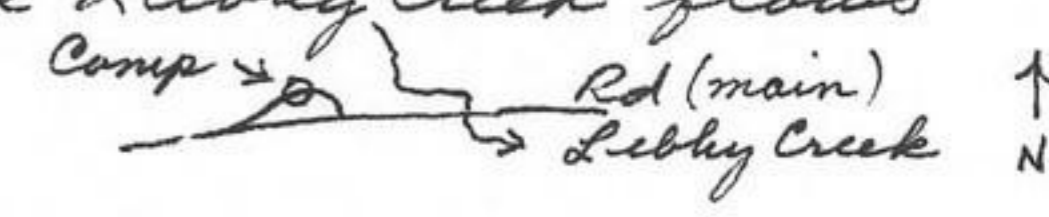
July 18, 1978

From 50 traps caught the following mammals. Set in ponderosa pine, <sup>red</sup> granite rock outcrops surrounded by open savanna. Most Peromyscus from under or near protection of rocks. Young cottontail numerous and only young observed. They retreated to rock protection. Ears short, fur grayish and short, upper parts hind legs rufous.

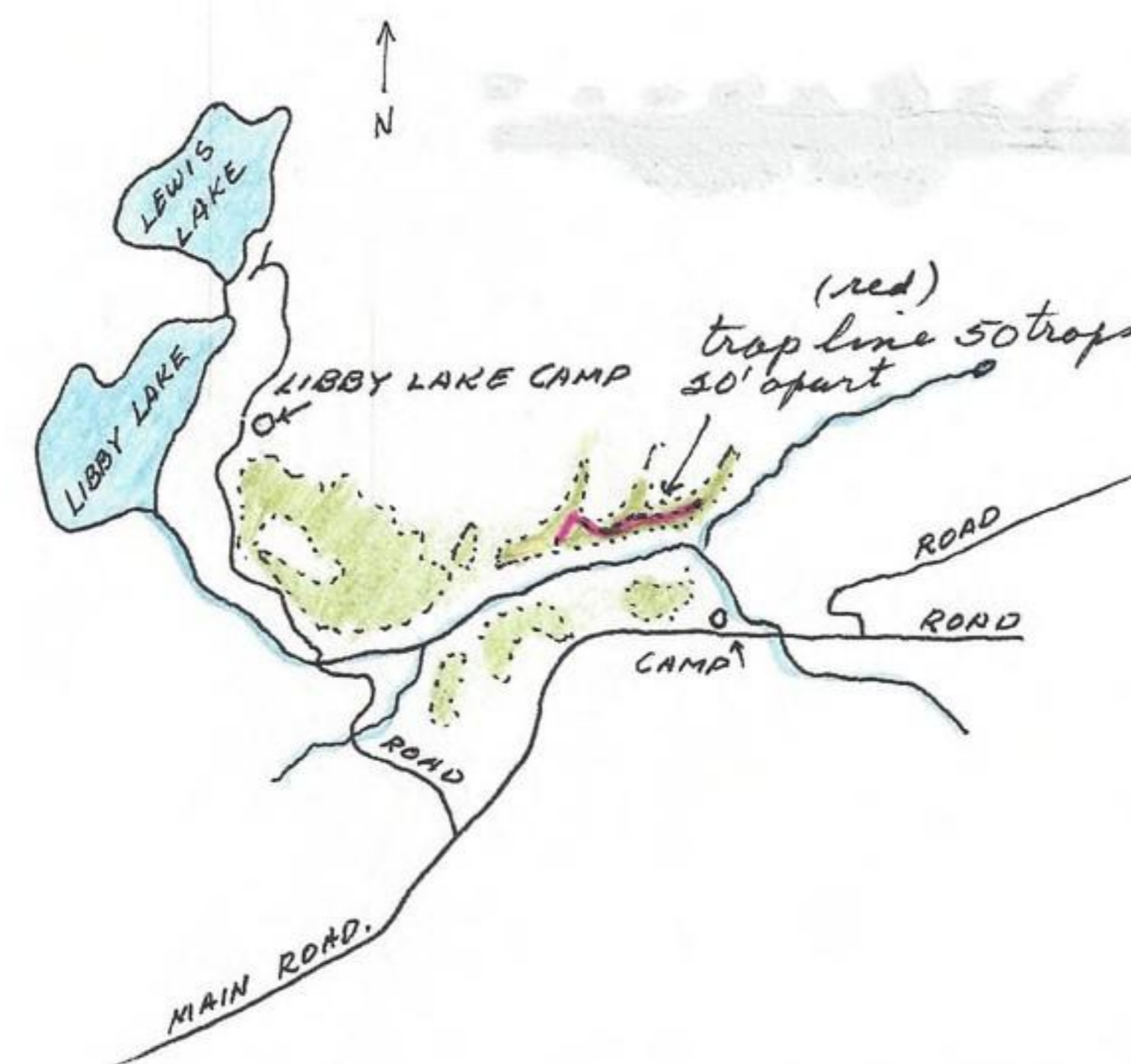
780718-1	Peromyscus	154-62-21-18-23gms. ♀ placental scars.
780718-2	"	160-64-20-18-31gms. ♀ 2x2 emb. 14mm
780718-3	"	163-71-20-18-26gms. ♂ testes 12mm
780718-4	"	162-69-20-18-27gms. ♂ testes 9mm
780718-5	Eutamias	194-90-31-15-39gms. ♂ testes 4mm
780718-6	Peromyscus	162-68-20-19-24gms ♂ testes 9mm
780718-7	"	167-68-20-18-25gms ♀ 5x4 plac scars
780718-8	"	152-64-19-17-19gms ♂ testes 7mm
780718-9	"	150-63-19-18-20gms ♂ testes 5mm
780718-10	"	162-70-20-18-24gms ♂ testes 10mm
780718-11	"	161-67-20-18-25gms ♀ 3x3 plac scars.
780718-12	"	148-60-20-17-19gms ♂ testes 7mm
780718-13	"	155-65-20-17-18gms ♂ testes 7mm
780718-14	"	161-66-21-19-24gms ♂ testes 8mm
780718-15	"	132-56-18-15-15gms. ♂ testes 2mm
780718-16	"	142-63-19-16-16gms ♂ testes 3mm.

At 12:00 P.M. Annette and I made trip (hiking) to the east and observed robin, flicker, chickadee, Steller's jay, 8 cottontails 12 Richardson's ground squirrels (*Citellus richardsoni*) small butterflies at 1 per every 10 minutes, 3 *Eutamias* (some kinds as one on trapline, <sup>*Citellus lateralis*</sup> Say's ground squirrel, badger digging up last night, several older diggings, birds rare. Min. temp last night 65°F, clouds and weather of yesterday now to E and sky blue with cumulus clouds. Cool in forest, warm in sun. Slight wind. 89299.9 mileage at camp and now starting N to Laramie. at 301.5 Wyoming state line at 2:10 P.M. 304.8 4 western roven. 320.0 horned lark. 328.0 Laramie now leaving at 4:25 for Snowy Range. 332.9 air port W of Laramie and will keep complete census to Centennial. 4:32 P.M. horned 33.6 2 antelope. 34.0 antelope. Left side of road (S) a yellow grass and in much better condition than grasses on N side of road where they are grazed to roots. 337.4 2 antelope

338.3 horned lark. 340.4 horned lark, no water in small ponds. 345.6 jack rabbit road kill (*Lepus townsendii*), horned lark, 347.3 *Lepus townsendii* road kill, artemisia beginning, 3 inches high in over-grozed area, horned lark, 347.6 *Lepus townsendii* road kill, 349.3 2 antelope, 349.8 2 *Citellus richardsoni*, 350.6 10 Canada geese, 25 ducks, some teal and one duck at least a gadwall. 350.5 Jack's Place by lake. 1/10 mile before his place at bridge. 50 thistles? 352.0 *Citellus richardsoni* road kill. 352.0 *Citellus* road 352.6 river, 353.1 first sparrow hawk since Lawrence, Kansas or 735.8 miles without a sp. hawk, 3 *Citellus richardsoni*. 354.1 *Citellus richardsoni* rd kill. 355.7 *Citellus richardsoni*. 356.2 *C. richardsoni*, 358.3 Centennial 5:15 P.M. 364.1 marmota road kill, 364.7 upper Barber Lake road turnoff. 365.0 first snow along road. 366.0 redtail, 366.4 gates above Univ. Wyoming Summer Camp. 366.7 pine siskin. 367.5 *Eutamias* and robin. 367.9 Rocky mt. pine grosbeak and pine siskin. 369.3 *Eutamias*, robin. Continued to Libby Pass and thence back down road and camped on turnout just W of where Libby Creek flows under the road and on N side of road



There is considerable snow in area especially drifts and among trees. Engelmann spruce on mountain side



Set 50 traps among N of Libby Creek, from about 60' above valley to 300 feet up hillside. most traps set at base of spruce or under protective covering of down timber, for protection against hail or rain. This is a mature forest of Engelmann spruce with large trees, one 156 inches in circumference, chest high, and many down logs. Very little underbrush except grumbalg type coniferous growth at edge of forest which supplies good overhead protection and bare soils below. Some trees has root exposed 1. to 1 1/2 feet from removal of soils.

to 7/10 mi. 780719-66  
 5/10 mi. E<sup>st</sup> outlet Libby Lake, Snowy Range, 10,640 ft., Albany  
 Co. Wyoming.

July 19, 1978 min temp 43°F last night  
 From 25 traps set among Engelmann spruce of S exposure " of Libby  
 Creek caught 7 mammals <sup>last night</sup>. Snow 50% among trees.

<u>780719-1</u>	<i>Clethrionomys gapperi</i>	142-42-18-14-25 gms. ♂ testis 11 mm
<u>780719-2</u>	<i>Peromyscus maniculatus</i>	150-61-20-18-23 gms. ♂ testis 9 mm
<u>780719-3</u>	" "	163-62-20-18-26 gms ♀ 3x3 plac 4 mm
<u>780719-4</u>	" "	170-78-20-18-25 gms ♂ testis 8 mm
<u>780719-5</u>	<i>Eutamias</i>	197-81-30-15-50 gms ♀ 4x3 <sup>sup</sup> plac 2 mm
<u>780719-6</u>	"	205-91-31-15-66 gms ♀ 3x3 plac scars
SKI <u>780719-7</u>	<i>Peromyscus maniculatus</i>	137-60-19-16-25 gms. ♂ 3x4 test 5 mm
<u>780719-8</u>	" "	141-56-18-16-20 gms. ♂ ut normal

At 1:45 P.M. checked same trapline as above to see if nocturnal  
 mammals were active this time of day. Last checked 7:30 A.M.  
 None left traps in place and will check again this evening toward  
 sundown and again tomorrow morning. [did not check this evening]

<u>780719-9</u>	<i>Clethrionomys gapperi</i>	113-32-18-10-16 gms - ♂ testis 8 mm
<u>780719-10</u>	<i>Eutamias</i>	202-88-31-14-54 gms. ♀ ut normal
<u>780719-11</u>	"	206-92-32-17 48 gms. ♂ testis 6 mm
<u>780719-12</u>	"	203-91-30-15-42 gms. ♂ testis 5 mm
<u>780719-13</u>	"	201-86-29-16-44 gms. ♂ testis 5 mm
<u>780719-14</u>	"	202-90-30-15-51 gms. ♀ 3x3 plac scars.
<u>780719-15</u>	"	203-90-30-15-53 gms. ♀ 4x3 plac scars retracted.
<u>780719-16</u>	"	200-89-30-15-43 gms ♂ testis 6 mm

July 20, 1978 min temp 39°F, hail 7:30 AM 3/4" deep.  
 From same trapline as above, set July 19 recorded the following  
 mammals: (hail yesterday afternoon and traps not checked  
 since 1:45 yesterday. Checked this A.M. at 7:00 and pulled  
 traps.

<u>780720-1</u>	<i>Peromyscus</i>	139-33-17-15-32 gms. ♂ testis 8 mm
<u>780720-2</u>	<i>Peromyscus maniculatus</i>	150-65-20-16-21 gms. ♂ testis 8 mm
<u>780720-3</u>	" "	171-74-20-17-27 gms ♀. plac scars
<u>780720-4</u>	<i>Eutamias</i>	185-80-29-15-39 gms. ♂ testis 5 mm
<u>780720-5</u>	"	196-86-29-15-42 gms. ♂ testis 5 mm 8 ticks on dorsal stripe
<u>780720-6</u>	"	193-86-31-15-45 gms. ♂ testis 5 mm
<u>780720-7</u>	"	186-77-30-14-42 gms. ♂ testis 5 mm
<u>780720-8</u>	"	189-82-30-15-38 gms. ♂ testis 5 mm
<u>780720-9</u>	"	192-85-31-15-38 gms ♂ testis 5 mm

## Birds along the trapline:

pine siskin	mt. bluebird
gray-headed junco	red-shafted flicker
rocky mountain pine grosbeak.	redtail hawk?
audubon warbler	Cassini's purple finch
white-crowned sparrow.	
robin	

Hail gone this A.M and clouds dissipating. Some general observations: marmot has taken over a man-made elevation. white-crowned sparrow has a flight and wing beat similar to the Eng. sparrow. Some vegetation is growing thru ice of snow banks. The Phenacomys number 780720-1 was caught under a Siberian juniper among Engelmann spruce. Butterflies rare and I would say 6 on each trip into the field. Lowest temp on trailer freezer 24°F

Left 9:30 A.M. Photos:

780720-10 Snowy Range, one of the high peak on right. Snow falling chimneys from ridge to base, snow a good marker of fracture systems, the basaltic intrusion on left, high, is picking up & holding snow and may be is more resistant and protrudes. W side forevalley in snow from winds down off range to W, E side of valley free of snow. This photo was taken from top of Libby Flat ridge and shooting directly W of lake, secondary ridges & range beyond. It is just over this divide where many *Citellus richardsoni* are active.

780720-11 ibid but more of Libby Flat ridge in foreground with Krummholz on right side of photo.

780720-12 Same as above but more to the N showing medicine Bow Peak, the main range is Precambrian quartzite. The main ridge shows the effect of snow accumulation on lee side of ridge, almost to bottom of slope as if one big cornice, then bare, then snow accumulation beyond. The conifers are getting smaller until at about base of ridge they assume Krummholz in life form, some up slope to near top. Boulders on sloping foreground quartzite.

780720-13 Same as above but different foreground. Snow on east exposures. Some avalanches from Top Snowy Range.

780720-14 Same as 780720-10 but different foreground.

780720-15 From first valley W Libby Flat Ridge, showing open lake and Snowy Range in what would be the area W of Lake Marie. Annetle on boulder on extreme left,

780720-16. Same as above but higher (N) on lake showing drainage into lake. Bare places (leafless) in willows made by snow bank recently melted. Sails saturated at head drainage.

780720-17 N of last lake and to the NW, Medicine Bow Peak to right.

780720-18 same as 780720-16 but slightly farther N on lake. *Eriophorum* white flower. Snow mass has just left to right.

780720-19 It is obvious we have backtracked to top of Libby Flat divide, can't leave such beautiful country. This is to SE showing Krummholz. These are favorite places for *Peromyscus*, shrews and some *Clethrionomys*. Not much snow on windblown flat but deep snow among conifers beyond open area.

780720-20 From Libby Flat ridge at divide showing country to NW with Medicine Bow Peak to left and the rounded peak, Sugar Loaf Peak. The Snowy Range is made of medicine Bow Quartzite of fine to coarse grain, slight bluish cast and considerable cross-bedding. Some greenish quartzite at top. This is the rock that gives the range a whitish appearance at a distance. The dikes in this range, especially noticeable above Lake Marie are <sup>igneous</sup> mafic dikes of basalt and diabase, some altered to amphibolite. The valley between the base of the Snowy Range and the W slope of Sugar Loaf is medial Precambrian, as is the medicine Bow Quartzite, and is the Lookout Schist complex, mainly laminated and alternating with quartzite and muscovite. Complex folding and some conglomerates. The Sugar Loaf Peak + E slope to base is Sugar Loaf quartzite of massive quartzite and cross bedding. At base of slope and plateau beyond is Nash formation mainly of meta-dolomite with folding and alga structures. The white quartzite in foreground is medicine Bow Quartzite and shows cleavage faces. It has been transported by glaciers onto Nash formation which underlies the erratics. The wind is sev. on these ridges of Libby Flat.

780720-21 From same position as above and same quartzite rock. Shot directly to W. Igneous mafic dikes near top of range noticeable

780720-22 same as above with beautiful quartzite rocks to left,

780720-23 Same general area from Libby Flat N. To NW with Medicine Bow Peak to right. Quartzite rocks from glacial deposits. Krummholz to right showing effect of wind from ridge to W.

780720-24 From Libby Flat ridge to W to Snowy Range. This is one of several testing for best foreground.

780720-25 Same as above with different foreground.

780720-26 Almost identical with 780720-23 except better light.

780720-27 From Libby Flat Ridge to W of Snowy Range and small lake in middle ground.

780720-28 Back again to lake in first valley W Libby Flat ridge to SW of Snowy Range above Lake Marie.

780720-29 Same as above but more of snow on W ridge. There is more snow at base of slope than at top.

780720-30 Same as above but different foreground.

780720-31 Same as above at S end lake. Engelmann Spruce as trees.

780720-32 E end mirror Lake with Snowy Range in background.

780720-33 W side mirror Lake to W showing igneous intrusion mass (darkish) in quartzites of Snowy Range. This exposure is perhaps the most beautiful and extensive of any <sup>rock</sup> face in Wyoming and is about 1000 feet from plateau below. This is only a 6<sup>th</sup> of the thickness of the Medicine Bow Quartzite. The anticlinal structure is in such a form that the Lookout Shales and Sugarloaf quartzites appear as below the Medicine Bow Quartzite but these and the Nash formation are above the Medicine Bow Quartzites stratigraphically.

780720-34 Outlet cascades of Lake Marie, with the lake and the Snowy Range as the axial remnant and protalus ramparts in the middle field. A large passenger plane at one time rammed into the E face of the range (middle photo) near top and hung so tenaciously on the slope that it was almost impossible to rescue passengers.

At Libby Flat divide on main road measure a *Citellus townsendi* as 11 1/2 inches total length and a marmot at 21 3/4 inches. Observed 2 marmot and 12 *Citellus townsendi* in this area. 2 raven flew over.

Left Snowy Range and continued W down off Snowy Range to mouth of canyon that enters the valley of the North Platte River, where we stopped and prepared 9 specimens collected this Am. in the Snowy Range. At this point observed a Golden Eagle circle S along front of mountain (200' above me). Left at 4:30 P.M. Cliff swallows in cliffs going in and out of nests. Between mouth of this canyon across gradually <sup>down</sup> sloping hills to N. Platte River. Counted 5 live *Citellus richardsoni*, 6 road kills,

3 magpies (at mileage 439.6), 12 antelope, 3 Brewer's blackbirds and no sparrow hawks which are usually common along this route. Arrived N Platte River 402.4. The lower pasture on slope are now completely grown to willow. Approx 300 cliff swallows under bridge. At 40.6 approx 300 prairie dogs in field of short grass, mounds inconspicuous. Just beyond at 403.0 no prairie dogs in old colony of previous years. 403.4 highway 230 now N. 13 prairie dogs along road between here and Saratoga, <sup>(airport)</sup> at 410.5 mileage, also few *Citellus townsendi* along old railroad track. From Saratoga went N about a mile to Camp on S side of lake

Recreation Lake, approx 1 mi N Saratoga, Wyoming  
July 21, 1978.

Birds in area at camp: Wilson phalarope, Calif. gull, pied-billed grebe, yellow-headed blackbird, loon, mallard, killdeer, night hawk, *Citellus spilosoma*, *Citellus richardsoni*,

at approx 2/10 mi. E on shore of lake (S side) observed an adult long-tailed weasel and 2 young. Observation about 60' away and weasel about 100' from lake on sagebrush <sup>rabbit brush & greasewood.</sup> slope. First recognized by 8 Brewer's sparrows (sp.?), which were following every movement of the weasel from tops of sage brush directly above the weasel. The adult weasel captured and adult *Citellus richardsoni* and carried it to an open hole under a sagebrush bush. One of the young weasel was standing upright not more than 1 foot from a cottontail rabbit and neither of them seemed to be concerned with each other. When I approached, the rabbit jump and the weasel jumped a fraction of a second later into a hole. The rabbit went 6' and stopped. The <sup>immature</sup> weasel returned from hole, jumped at the rabbit and the rabbit did not react and the weasel left and ran 100' thru sagebrush. It passed 8 *Citellus richardsoni* and to my disbelief the squirrels did not react to the presence of the weasel. Length of hind foot in sand approx. 1 inch, and completely covered the area between the lake, sandy area and sagebrush cover. I judged this area to be the territory of the weasels.

Other observations: Pintail and 9 young 1/3 size adult, young of loon 1/3 to 4/5 size adult; family of <sup>pied-billed</sup> grebes in families of 1 adult and 5-5-6-5-4 young, 55 Franklin gulls, 2 herring gulls.

Lesser yellow-legs. Left camp 10:00 A.M. at mileage 89 415.9  
 417.1 back to main road now 77, redtail, lakes dry and  
 encrusted with salt. Will keep complete list to Walcott  
 junction. Song thrasher, sage thrasher, 7 *Citellus townsendi*  
 road kills, 425.4 jackrabbit road kill, 426.6 2 antelope.  
 427.0 jackrabbit road kill, 427.7 now new road in  
 dirt. Upper half Elk mt in clouds. 432.9 10 antelope  
 and 2 jackrabbit road kills, 433.3 jackrabbit rd. kill,  
 431.1 bridge with truckle water in creek, jack rabbit rd. kill  
 34.6 jackrabbit rd. kill, 434.8<sup>1</sup> jackrabbit rd. kill,  
 435.1 5 antelope, one jackrabbit rd kill, 436.6 highway 80  
 at 10:40 A.M. The <sup>low</sup> clouds seem to be moving in from the  
 SE and cover all mt. tops. 437.1 jack rabbit road kill, now on  
 (Highway 30-287) 437.7 jackrabbit rd. kill, 437.9 jackrabbit  
 rd. kill, 438.3 6 antelope, 439.5 sparrow hawk, 441.4  
 Coyote Spring, marmot along side of road here 444.9 2  
 jackrabbit rd. kills, 449.2 antelope, 451.2 5 antelope.  
 452.5 3 antelope. There is an absence of *Citellus richardsoni*  
 and prairie dogs. 455.6 live *Citellus richardsoni* at Homeridge  
 460.0 4 antelope, jack rabbit road kill, 460.6 6 antelope,  
 468.7 antelope, 2 cottontail road kills. Ducks and shorebirds  
 around ponds, 2 cliff swallows at bridge and only birds  
 seen so far. 470.5 cottontail road kill, 471.5 gull, antelope,  
 472.8 Medicine Bow junction at 11:35 A.M. 473.3  
 is mileage leaving medicine Bow, at 3:00 P.M. on 487 highway,  
 475.2 medicine Bow River out of medicine Bow, 478.5  
 Little medicine Bow River, 1/5 full and red in color, 479.4  
 some snow along side of road, at 6700 from last night's  
 rain, snow and hail, 482.2 antelope, 486.6 2 antelope,  
 horned lark 488.9 2 antelope, 493.0 *Citellus richardsoni*.  
 494.2 antelope, honking of ear, <sup>while moving</sup> spurred it on from a standing position.  
 496.0 5 antelope, 1 *Citellus* road kill, 496.7 Shirley Basin turnoff.  
 at 4:10 49.5 road side pond on right, 2 families of pintails, 7  
 young each, 5 yellow-headed blackbirds, night hawk, 4  
 killdeer, Wilson snipe. At a distance the road shows green  
 in contrast to brownish native vegetation, 499.7 Roughleg  
 hawk and *Citellus townsendi*. Since Shirley Basin turnoff  
 there has been 5 cottontail road kills and 10 *Citellus*. 500.1  
 2 antelope, 3 buntinglike birds. Along road bed planted  
 grasses 7 inches high. On other side of fence native grasses  
 3 inches high. 504.9 2 antelope, 505.5 Turnoff to Shirley Basin Village



9 antelope to left, 2 on right, 506.7 Shirley Basin Vil. at 4:25 P.M.  
 Turned around and returned to main road 2 antelope, 508.1  
 now back on main road and to N, 509.7 antelope, 511.1  
 turnoff to <sup>Betty Petrotomias</sup> mines, 511.5 10 antelope 1/10 mi from tailings of  
 mine, 512.4 10 antelope by water hole, 515.4 back on  
 highway and now to Casper 5:20 P.M. with Mary in tow,  
 516.5 2 antelope and male bunting, 517.9 14 antelope, 518.6  
 8 antelope, some domestic sheep in area, 521.1 sparrow hawk,  
 5 antelope 522.9 6 antelope, 523.4 14 antelope one group.  
 ridge have sagebrush growing in same place as a snow  
 cornice, there is a surprising amount of green vegetation  
 growing on all slopes. Junction with 77 at 529.0 now  
 on 487, 528.2 Natrona Co. line, 529.0 sparrow hawk,  
 532.6 sparrow hawk, 548.3 first mourning dove in a  
 long time (see notes for last one observed). Some kind of clouds  
 as yesterday, low, dark. no evidence of Citellus in area  
 since last recorded, 551.5 sparrow hawk, 552.8 junction  
 with 220. at 6:12. Casper at approx 570.8 at 6:40 P.M.

Casper, Wyoming.

July 22, 23, 1978

Stayed at Mary's home and organized for trip to Big Horn  
 mountains and natural Trap. Visited Fort and drove top Casper Mt.

Casper, Wyoming

July 24, 1978

Left for Big Horn mountains 11:35 A.M. 735.1 mi. 750.4  
 first antelope (2), 752.0 12 antelope, 759.5 7 antelope,  
 761.4 road kill antelope, 6 antelope 763.6 Natrona, 764.5  
 7 antelope, 765.3 7 antelope, 769.1 antelope feeding on  
 right-of-way, 770.2 6 antelope, 2 antelope, feeding among  
 domestic sheep, 771.3 2 antelope, 3 antelope, 772.7 Powder  
 River, 773.4 3 antelope feeding on right-of-way, 774.3 9  
 antelope, 774.4 S. Fork Powder River, 784.0 Waltman,  
 at 12:40 P.M., 2 antelope, 788.3 2 antelope, Small mammal  
 road kills uncommon and those encountered are Cottontails,  
 793.0 Hiland, 795.3 antelope, 797.7 2 antelope, 802.9 antelope,  
 birdlife rare, antelope 30' from road and grazing on right-of-way,  
 804.6 5 antelope, 805.3 antelope, 805.6 4 antelope, 809.1  
 4 antelope, 812.4 4 antelope among tanks in field, 812.7  
 moneta, antelope and young 1/3 height mother, 820.1 6 cotton-

tails since last ones observed. 813.9 dry river bed, and alkali.  
 829.1 7 antelope in alkali lined river bottom, some lying down.  
 833.8 Shoshoni. at 1:50 P.M., first horned lark since Casper (5)  
 853.0 mule deer road kill. In Shoshoni canyon juniper on  
 one side and deciduous trees on other side. Continued to  
 Thermopalis. Canyon marked (geological). Checked hot springs  
 and formations. Continued to Worland, Grey-bell and then  
 Lovell. There are good outcrops of Cretaceous in the broad  
 valleys. The Big Horn Range is very impressive to the E.  
 Camped at City Camping grounds east of Lovell. Birds across  
 the Basins from Thermopalis rare, occasional horned lark,  
 one or two mourning doves but that is about all.

Lovell, Wyoming

July 25, 1978

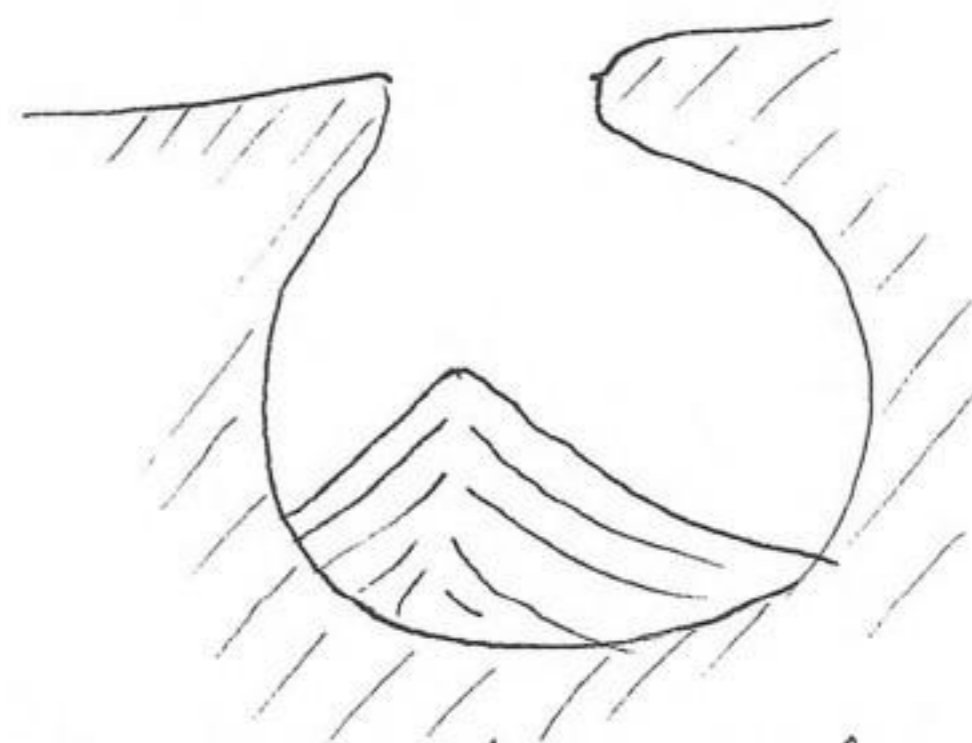
Spent morning trying to arrange for transportation to Natural  
 Trap but pilots were not sure if a runway was in operation.  
 While in town ran across Orville Bonner down to town  
 to pick up food for Dr. Martin and Orville who are assisting Dr.  
 Miles Gilbert of Univ. of Missouri in the excavation of the Natural  
 Trap. Martin & Bonner are paleontologists at the Mus. Nat.  
 Hist., Univ. Kansas. Bonner invited Annette and I to  
 the Natural Trap and would return us in evening. A four-  
 wheel truck is about the only vehicle that is able to climb  
 and cruise the rough road. At Natural Trap, visited and  
 observed the excavation.

Entrance is by scaffolding.

Road up first canyon would  
 be impossible to ordinary  
 vehicle. Another canyon  
 beyond even steeper.

Then beyond on uplands  
 navigatable with ease.

Birds rare. At Natural Trap  
 observed 2 meadowlarks, 1  
 mourning dove and 1  
 pigeon hawk. Several  
 chipmunks but no ground  
 squirrels, no antelope since E of Shoshoni. Mule and white-tail  
 deer in area. Only mammal captured by their mammalogist  
 is a Peromyscus. Miles Gilbert showed us entrances to



accumulation of bones of  
 almost all Pleistocene animals  
 and as complete a record as  
 is found anywhere in the U.S.

other rooms leading off to E side of <sup>main</sup> chamber. They extend 1/4 mile. photo 780725-1 of top of trap showing metal grate used to keep unauthorized individual out of cave. The animals were supposed to stampede into hole or accidentally fall in passing. Solid rock would keep accentuated erosion into trap and make stopping of animals more difficult as they would slide into trap. This is on a plateau, top Big Horn Range in distance to E. Mary has other photo, one from top looking down onto elevation which is unusually interesting. Left trap and walked up grade to spring to E where the students bathed in a tank after a days work below. Some soil was being screened with use of water. Met Bonner here and we returned to Lovell where we gave Bonner a good meal arriving about 6:00 P.M. After supper we drove up <sup>road on W side</sup> along Big Horn National Recreation area and lake to a vantage point near border of state where we made a few photos of the lake in deep canyon below (just beyond Horseshoe Camp) photo 780725-2 of Canyon of the Big Horn Lake showing the upper layer near top of canyon of dissolved limestone caves and cavities which does not extend below this particular level. This layer is lower than the natural trap but may be associated with the N.T. formation of the lake. Water in lake green from algae because of lack of circulation of water. photo 780725-3 of Canyon of the Big Horn Lake. The natural trap is in the area of the uplands on left side of picture in the hummocky area. It is possible for large mammals to descend to lake below. Although slightly out of place in daily sequence, no. 780725-4 is of students, from several places in the U.S., who are employed by the project (by their fees) for excavation work. This is financed by a national organization. Spring water is run into this tank which acts as a bath tub for workers and water for cattle. <sup>After</sup> Returned to Lovell in evening from Big Horn Lake Canyon.

Lovell, Big Horn Co., Wyoming.

July 26, 1978.

Left 11:00 A.M. 005.9 now N on highway 37 to new camp along lake at first camp. N of Lovell. 007.1 Shoshone River. mourning dove. From camp, <sup>(Horseshoe Bend)</sup> grounds and boat ramp took photo 780726-1 of contact of Jurassic-Triassic from camp. Exposure on W side of Bay. Lake now forms new shoreline on Triassic

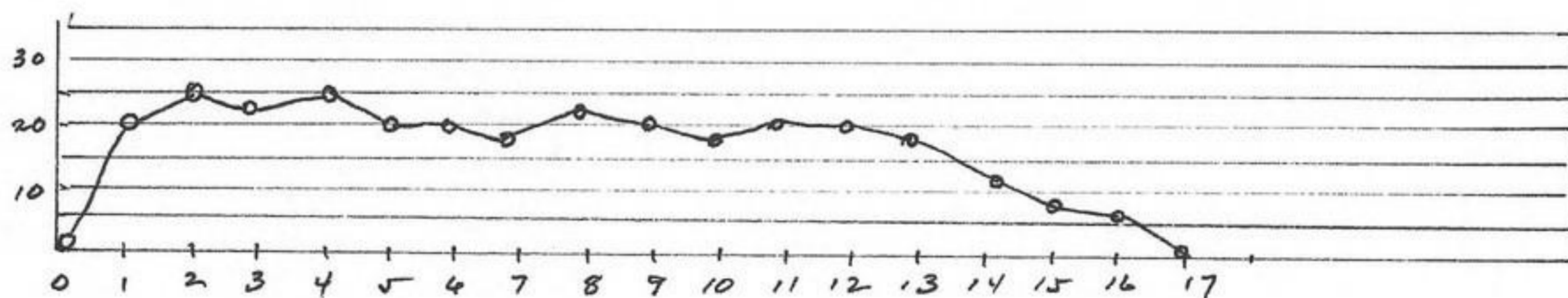
Drove to N end bay where road is cut thru formations and then walk S to good exposure of all beds. Photo 780726-2 of close-up of fossil Gryphea. Practically all same species and of different size and covering ground as in photo.

Photo 780726-3 of the formation with Gryphea from light colored outcrops on top of swale to left <sup>(W)</sup> to about 1/2 way up slope on right or E side of swale. Made transect from W to E, dividing the formation into 17 equally spaced stations W to E and from each station counted the Gryphea in 1 sq. foot of surface. Results are as follows (test to see if the fossils varied in numbers within the formation).



Sta.	Number Gryphea	10	18
0	1	10	18
1	20	11	20
2	25	12	20
3	23	13	18
4	25	14	12
5	20	15	8
6	20	16	6
7	18	17	0
8	23		
9	20		

There appears to be a definite distribution, slackening off at lower level of formation to 0 and some for upper level but here more abrupt, otherwise about same distribution.



In one of the best areas not along transect there were 56 Gryphea in 1 sq. foot. Photo 780726-4 same area <sup>as</sup> above showing Triassic beds below. Photo 780726-5 same as above. The Big Horn lake and canyon runs thru distant ridge to right (E) of mountain (place of vantage point where some photos were taken. Left camp at 1:25 P.M. to drive to top of Big Horn Range to check medicine wheel, an Indian structure that is like a wagon wheel outlined by rocks. At 019.0 road crosses bed supporting the Gryphea. Mileage at main road leading to E to Big Horns at 029.2. 063.8 medicine wheel. Last 1/2 mile in snow so Mary hiked on. Annette and I remained at car <sup>9200ft</sup> and watched marmots and chipmunks. Left and returned same way. Lowest snow 8900ft at 066.2.

at 071.0 at W edge of Big Horn Range on alternate rd road, Big Horn Co., collect a road kill *Tamiasciurus hudsonicus* and prepared it as a specimen.

780726-6 *Tamiasciurus hudsonicus* 330-130-45-22 (nont.) ♂

This locality is 11 mi. E, 4 mi. S Lovell, Big Horn Co., Wyoming, also in this area photographed the drag beds of a N S fault on the W side of Big Horn Range. These could very easily be an overturn fold and not a fault. Photo 780726-7 a general view to S. Photo 780726-8 exposed overturn on side of a E-W canyon. The overturn is every evident. Photo 780726-9 showing base of mt and contact with valley. Continued down grade and at 092.2 middle of causeway over Big Horn Lake (upper end), 18 cormorant nests in trees on S side and 5 on N side causeway in trees on W side lake. 105.9 highway <sup>37</sup> to camp. From here to camp. (Horseshoe Bend) observed meadowlark, mourning dove, mourning dove.

Horseshoe Bend Camp Grounds, Big Horn Lake, Wyoming

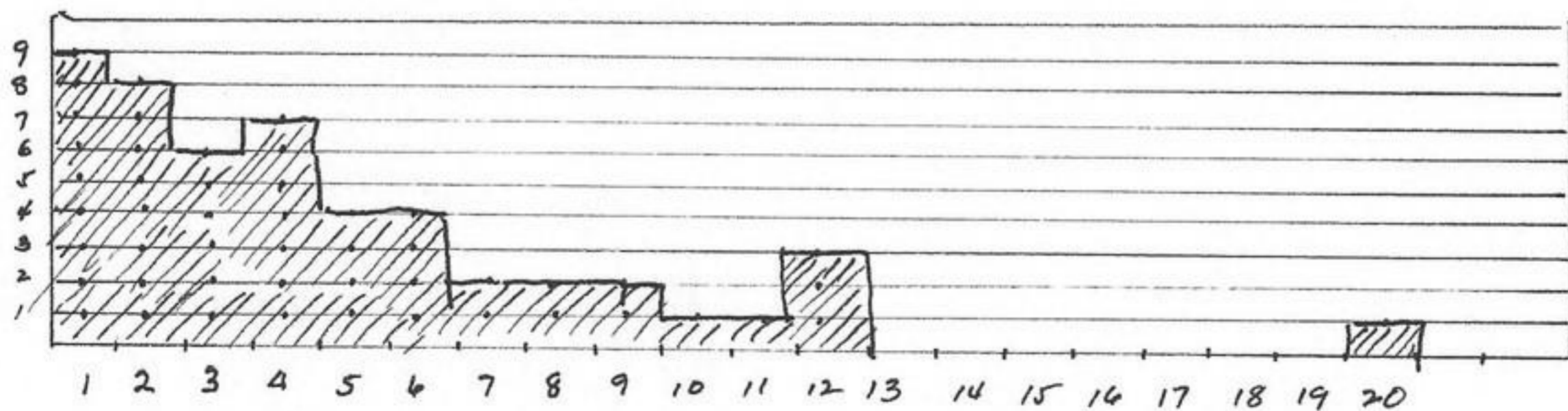
July 27

Left camp at 9:30 A.M. at 120.5 mileage. Calif gull and nighthawk only <sup>common</sup> birds in area all others rare. 128.5 overlook. Birds from camp to here 6 magpies, 2 mourning doves, 150 cliff swallows (one nesting area) at overlook took 3 photos of canyon + lake below in better lighting than previous day. No. 780727-1 shows greenish algae in lake <sup>E</sup> below point. 780727-2 from same point but to S. 780727-3 same as above but further E on point. Left point and returned to main rd. thence N at 129.4. 138.8 Berry Landing. Photo 780727-4 of Mary diving into lake. Photo 780727-5 of Mary and her dog discussing problems of aquatics. The best camp ground is W side first arm on point. Other sites up canyon. Left 11:25 A.M. 5 Ordovician needles to W. 140.8 back on main road. 148.0 Devil Canyon overlook. no birds or mammals so far except white-throated swift. 150.0 Montana State line. Pike, walleye & trout in lake. 150.2 magpie. 153.6 first horseshoe turnoff. Returned to camp. and at mileage 90 155.2 at 1:00 P.M. left for Cooper. Camp at 4100 ft. at 156.9 on way to main road observed golden eagle on rock of upper jurassic on N end of ridge exposure. 165.4 Shoshoni River. Only birds observed were 2 horned larks, and the eagle of course. 201.4 Railroad overpass at Greybull.

202.9 middle of Greybull 2:35 P.M. 204.2 Greybull River, nothing outstanding in animal life so far. Jurassic-Tertiary sequence NE of Greybull similar to that of last camp, along Big Horn Lake, 210.8 Basin at 2:47 521.5 Big Horn River. <sup>Eocene</sup> 231.5 to E Paleocene contact. to S. being the Fort Union and the Wasatch. 241.0 Worland. 274.3 Thermopalis, 4:10 P.M. First grackle since we left camp. 287.5 redtail hawk, 298.6 porcupine rd. kill some 4 miles from trees. 319.0 5 antelope most western on return to Casper, 328.0 moneta 333.3 lark bunting. 336.4 antelope generally distributed in this area. 339.0 Natrona Co. 356.7 Wallman 362.3 Nell's Half Acre. 367.8 Powder River. 8 lark bunting since Shoshoni. mourning doves and cliff swallows only other birds across area. 391.2 redtail. Junction 25-20 at 401.8 at 7:40 P.M. Arrived Casper. Recorded specifically the number of antelope between Shoshoni and 10 mi. W of Casper on above trip.

Shoshoni - 11-2-3- rd kill - 2 young - 3-1-5-3-1-2-4-4-4-3-3  
 Natrona <sup>Co. line</sup> - 12-12-7-4-8-1-5-4  
 Wallman 5-7-1-6 -  
 Powder River 2-8-4-3-5-1-6-2-6-2-12-1-10  
 Natrona 1-2-6-1-[mule deer 2]-2-9-9-20-1  
 to 10 mi. W Casper.

Total of 240 live antelope, 1 dead, 2 mule deer.



distribution of groups of antelope.

Casper, Wyoming

July 28, 1978

Left Casper. Recorder malfunctioned to Shoshoni and beyond. In this distance there were only 1/4 the number of antelope observed in same distance covered yesterday afternoon and evening. First locality on recorder is junction 134 and 26 beyond Shoshoni at mileage 544.5 at 4:05 P.M. Rain clouds ahead. 546.2 striped skunk rd. kill. mostly agriculture across this valley. 569.3 junction 33. 574.1 junction 26. now W. roven, 582.1 4 roven

596.0 first marsh hawk since Lawrence, Kansas, elev. 5800 ft.  
 610.6 into canyon and localized group 150 night hawks, nothing  
 before or after this encounter (lets a swarm of mosquitoes) 624.8  
 another localized group of <sup>300</sup> night hawks in <sup>main</sup> river valley. 633.8  
 Dubois at 6:00 P.M. 634.6 Center of Dubois. Camped at lake  
 (Falls Camp Ground.) Set 25 traps.

24 mi. NW Dubois on highway 26, Falls Campground, 9420 ft. elev.,  
Fremont Co., Wyoming. July 29, 1978.

From trap line in spruce along creek collected:

780729-1 *Clethrionomys gapperi*. 139-37-17-13-28 gmo<sup>♀</sup> 3x3 plac. scars.  
 780729-2 *Peromyscus maniculatus* 180-79-20-18-40 gmo<sup>♀</sup> 3x4 emb. 14 mm

Min temp last night 48°F. Many flowers wherever sunlight  
 penetrates forest. *Tamiasciurus* common in spruce forests.  
 Left camp at 658.9 mileage at 9:00 A.M. Cliffs in canyon  
 are brecciated. Crow road kill, white-crown sparrows in  
 area 662.8 mule deer road kill. 666.7 first snow at 9400  
 at Pagvotee Pass. Photo 780729-3 of *Tetons* in far distance  
 from overlook at mileage 675.5 Grand 685.4 2 raven. 689.3  
 5 raven, first *Citellus mollis*. 690.6 <sup>Grand</sup> Teton National Park at  
 10:07. 692.7 Moran junction. at 10:10 A.M. 695.7 3 pelicans, 2  
 Calif. gulls. 710.1 Photo (Tele) on E. side Jackson Lake to W. no. 780729-4  
 Considerable insect infestation on both the E +  
 W side of Lake (Jackson), caused by overdose of insecticide that  
 got the predator as well as the prey species. Dead tree up to  
 1/2 way to timberline. 722.1 Entrance to Yellowstone Natl  
 Park. Before entering Yellowstone took photo 780729.5 of  
 Colter Bay marina. Annette in trail. There are more flowers in  
 Teton area than in Yellowstone. 732.1 Lewis River, water  
 is maximum in rivers. 735.7 raven following road which  
 is a habit developed in Natl Parks. 762.4 Old Faithful, now  
 with clover leaf bit! at 1:18 P.M. Left Old Faithful at 3:45  
 after a trout dinner a performance of Old Faithful. 768.1  
 2 raven. 782.3 4 photo of elk in meadow towards river.  
 780729-6. 4 elk grazing in meadow along river. man has  
 made more trails in this meadow than elk. One would not  
 realize that there are 13 other photographers beside me at this  
 moment. Observation should be from vantage place on road  
 with Celestrons and facilities for photographing.  
 780729-7 Close-up of 2 elk in above field.

780729-8 4 elk in meadow as above, one lying down. These elk will tolerate man to 30 feet or so. meadows of grasses are nearly supersaturated with water but relatively dry to walk across the grasses. no noticeable microtine trails in vegetation. Raven. 794.1 W entrance Yellowstone. 799.4 raven, 809.0 4 raven. now travelling along N side of river along the Hebgen fault line. 818.2 Robin Creek. In this area made 2 photographs of fault displacement in a camp grounds. Photo 780729-9 show fresh fault scarp with vegetation barely covering slope. Bare area at top from surface soils giving way, maybe by small mammal. The walk that Annette is on has been place past faulting but the level was the same as top of fault before faulting. Some of these faults separated tents from cars by bisecting a camp site.

Photo 780729-10 fault across a creek, now graded to level below fault line. At the time of faulting these creek became water falls and cascades. note difference of stream boulders below and above fault line. Observed fault line all along N side of Hebgen Lake and how the N side of valley had dropped low enough to have inundated homes along the shore. The S side seemed elevated. Continued W <sup>Hebgen</sup> along N shore Hebgen Lake and finally ended on Madison-Co line at 820.1 and then returned to Hebgen dam area and made 2 photographs:

780729-11 Slide area off E side of canyon. Corps of Engineer have modified some part of slide and dug a new channel thru dam of slide debris.

Photo 780729-12 same area as above but slightly to N up canyon. It looks like the whole mountain pulverized and slide into canyon. Returned to Beaver Creek Camp Grounds for the night. Realizing that there were dozen of people covered by the landslide, we naturally did not rest peacefully at our camp site. Set 50 traps around a lake at camp among lake side vegetation, surround mainly by aspens but also other kinds of trees. Some ponderosa pines in area as well as sagebrush. Observed 2 deer and several chipmunks. Lake with water lilies. Arrived at 90834.0, 7:45 P.M. mileage at Beaver Creek Camp. Practically alone in camp. Usual birds associated with the conifer-aspens forests.



Beaver Creek Camp, Madison River, 7200 ft., Gallatin Co., Montana

July 30, 1978

From 50 traps around a lily lake bordered by grasses, sedges willow and aspen. min. temp last night. 46° F.

780730-1	Sorex	110-43-13-7-10gms. ♀ lactating.
780730-2	Zapus	231-135-31-15-30gms ♀ lactating
780730-3	"	232-139-32-15-21gms ♀ ut normal.
780730-4	Microtus	128-33-17-11-24gms. ♂ testes 8 mm
780730-5	Peromyscus	170-75-21-18-24gms. ♂ testes 12 mm
780730-6	Zapus.	223-137-31-19gms ♀ ut. normal
780730-7	Zapus	222-134-30-15-24gms. ♂ testes 5 mm
m. only 780730-8	Zapus.	226-135-31-15-20gms, ♀ ut normal
" 780730-9	"	203-122-30-14-15gms. ♀ ut normal.
" 780730-10	"	200-120-30-14-14gms ♀ ut normal
780730-11	"	117-135-30-14-18gms. ♂ testes 5 mm
780730-12	Peromyscus maniculatus	170-74-20-17-22gms ♂ testes 10 mm
780730-13	"	145-61-20-15-15gms. ♂ testes 8 mm
780730-14	"	152-67-20-15-24gms. ♀ ut normal.

Prepared above mammals and left at 90834.0 at 12:30 A.M. Continued down canyon to slide area and took several photographs enroute:

Photo 780730-15 showing dam in distance and where debris from E side of valley jumped the river and glided up slope on W side of valley, removing all forests up to where it stopped its forward thrust. The <sup>dead</sup> conifer trees on left of photo were killed by high water from the original impoundment, later lowered by natural erosion and the Corps of Engineers.

Photo 780730-16 as above but nearer dam. Shows to better advantage the debris carried up hill by the slide from the east side of valley. This lake has been named "Quake Lake"

Photo 780730-17 from same position as above but to the E up the canyon.

Photo 780730-18 near dam showing outlet and full sweep of displaced hillside.

Continued down canyon. 4-6 well developed benchland at mouth of Madison. 859.1 striped skunk rd. kill. 861.4 striped skunk road kill, 864.6 Indian Cr., 866.3 striped skunk rd. kill, 871.8 Cameron, 882.5 Madison River at Ennis 883.2 N. side Ennis. 1:50 AM at Ennis.

Continuing N on highway 287. Brewer's blackbirds in this valley are associated with farms or villages, 892.4 redtaillike hawk. 899.5 <sup>Norris</sup> first dry farming W of Norris. 909.8 Harrison. now on 359 a shortcut of Interstate 90. no birds. 925.1 Jefferson River and Jefferson Co. at 2:55 P.M. 926.5 Interstate 90. valley beyond has wide riparian growth of cottonwoods and may be as much as 3 miles wide. 943.6 area reminding me of Pole Mountain area W of Cheyenne, Wyoming, with brown granite boulders. 949.8 Silver Bow Co. line. 958.7 Left Harrison Ave. at 5:08 in Butte, Mont. W of Butte valley of isolated trees of juniper like the saguaro desert of Arizona, being all (the juniper trees) of same age and height. 995.5 2 crows. 015.1 striped skunk road kill. 015.8 redtail. 019.7 redtail. 91079.2 middle musciv. at 6:35 P.M. arrive at Camp ground (nat. Forest) this side of Logan at 91127.4 at 8:50 P.M.

Logan National Forest Camp Ground, Mineral Co. Montana.

July 31, 1978

Left camp 8:50 at 91127.4. The camp was in ponderosa pines and noted a chipmunk in old fire scar. Up to Superior noted a crow and 4 mourning doves and 2 robins plus 2 Eutamias, and 2 magpies. 146.6 swarm of white butterflies on ponderosa pine. 91189.9 Idaho State line at 9:40. Wallace-Kellogg area of canyon shows severe influence of canyon by man. wide highways, scarred mt. slopes, completely disrupted drainage systems, uncontrolled growth of villages and home sites. 228.4 extensive shallow marsh lands in canyon bottom. 247.7 Gulls at Coeur d'Alene Lake. First severe smog W of Coeur d'Alene 265.1 Washington State line at 11:45 A.M. 314.5 Coats and ducks in lake along road. Lake in cattails and open water. Sprague. 325.5 rest camp at lake and gull salvaging debris on ground. This is at N end Colville Lake. Areas outside cultivation (dry farming) are dense, 2 foot high grasses and may be part of original prairie. 333.6 Coyote in a natural prairie area about 300' off road, 2:00 P.M. 336.6 231 epit. Sky clear, temp 88°F. 346.5 Ritzville. This country is completely planted to wheat and no sign of a segment of Paulouse Prairie. It is a shame that representative sections of this prairie could not have been saved. Some artemisia

on road cuts. 353.5 dust devils increasing in numbers. 50% fields plowed, rest cut wheat or beans or whatever. whirlwind picks up column of dust but when entering cut wheat fields dust column practically disappears. what is left is grasses and sagebrush in untellable slopes and canyons. I just hope this area has be adequately sampled for animal life before destroyed by cultivation. Rarely natural bare ground as grasses & sagebrush fell in all places. Some whirlwinds have long, high funnels like a tornado. Can see 2 smoke columns on the horizon from man made fires. 369.1 redtaillike hawk (roughleg?). 373.5 2/10 x 2/10 mi of uncultivated land in sagebrush; first irrigated land nearby. This area is green of sagebrush against the brown of fields. 376.0 Grant Co. line. 386.7 now in area of poplar trees and some corn. 389.5 striped skunk road kill. Sky clear <sup>above</sup> but too hazy to see detail to west. 391.1 middle causeway of Moses Lake, water greenish, few gulls at lake. 406.8 lake with a gull. 431.3 middle bridge of Columbia River at 4:15. 443.8 first view of Panier, snow down to base. no wind on E side of ridge as we go W but not on E side. Cottonwood plumes all across the country wherever trees are in area, especially now going down to Ellensburg. 452.9 mt. Panier disappears from ridge top at 116 mileage past. 455.9 mt Baker? now in view. Ellensburg at 460.0 at 5:00 P.M. 15 min. later on way again (check fruit). 3 crows down Canyon from Nesqually Pass. 532.2 2 does and one buck feeding on slope of right-of-way (mule deer) at 7:05 P.M. and about an hour to go. They were in sunlight. 6 crows from pass to lowland to W. 91577.4 at 8:00 P.M. arrived at Annette C home in NE Seattle, Washington.

### Seattle, Washington

Aug 1 to Aug 8, 1978

Spent a most enjoyable week with Annette C and visited all of Seattle and also Max & Phyllis in Fort. Townsend.

Aug. 8, 1978

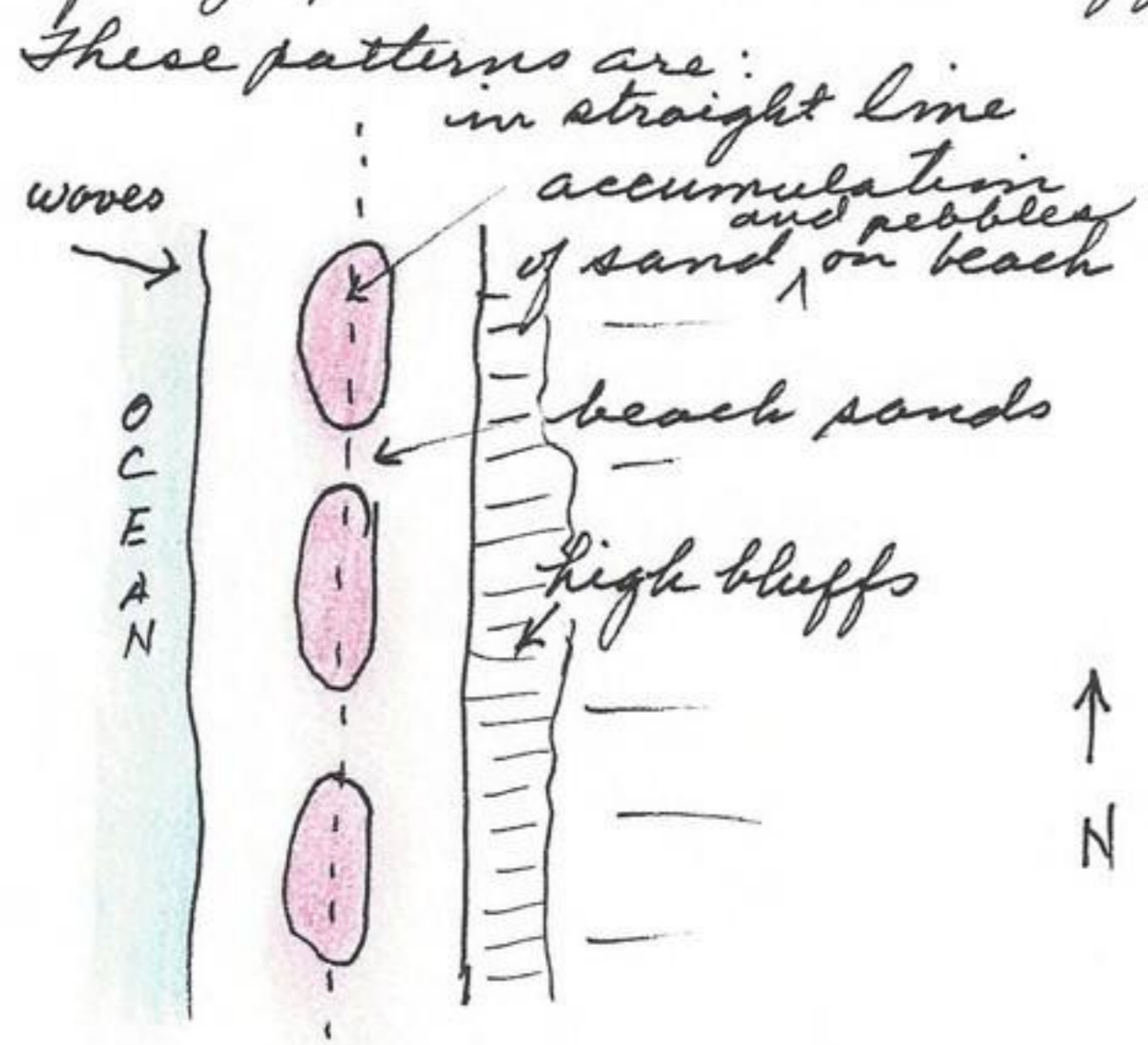
Left Seattle for coast & thence S to Calif. First stop at Dungeness State Park where we camped at the edge of the high cliff overlooking Straits of Juan de Fuca to the W. This is a very unusual camp site & park in general. This area is unique enough to make special trip in future.

Dungeness County Park, Clallam Co., 100 ft., Washington  
August 9, 1978

From 10 traps set at lump in second-growth, mainly willow and thick ground shrubs:

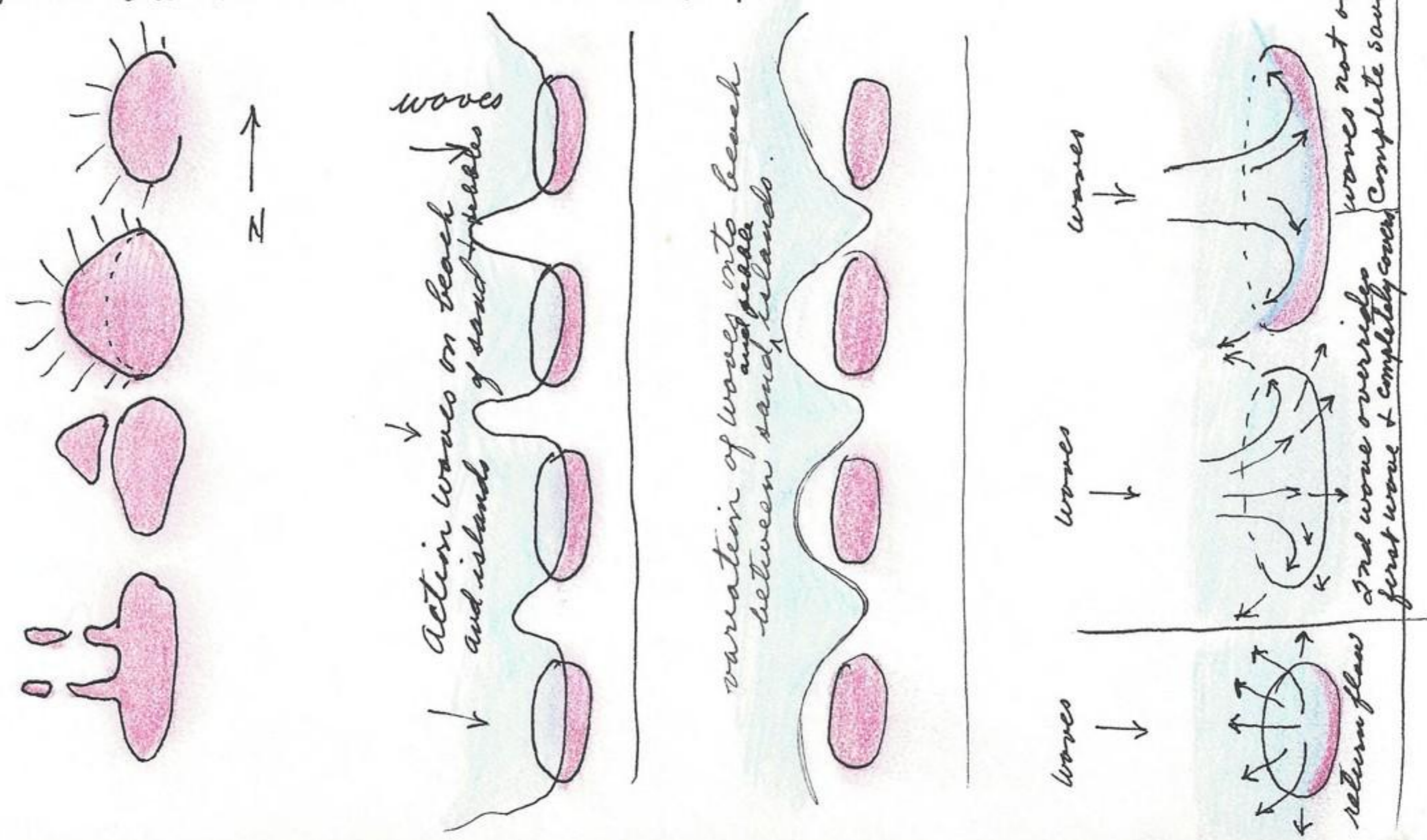
- 780809-1 *Eutamias townsendi* 240-111-35-21-73gms. ♂ testis 5mm
- 780809-2 *Peromyscus*. 167-80-18-16-19gms. ♀ 3x3 emb 3mm
- 780809-3 *Peromyscus*. 167-77-19-16-18gms ♂ testis 9mm

Caught a *Pipilo erythrophthalmus* in trap. total length 211 mm, weight 40gms. Others seen in area. The most unusual feature in area was the pattern on sandy beach at base of high, unconsolidated cliffs overlooking the straits to W.



These islands of sand and gravel on beach extended along base of bluffs to a far N as one could see or to spit and they had a regularity along the entire stretch of beach

Some variation in sand islands:



walked to base of spit to N but did not have time to walk out to the end. The trail leads thru conifers from camp to spit. I would imagine that this spit would be an excellent place to observe marine birds. Robin and gull only birds observed as it was cold, windy and rainy. Left Hungness and drove to Heart of the Hills which I did not recognize from my ascent of Mt. Angeles in 1941 (Nov. 10-11). I will have to get a map of the roads and trails of 1941 and see if I can relocate the area of Mt. Angeles and the route that I took. In recollection I went from Port Angeles to the National Park headquarters, thence back to road that goes up the canyon to Heart 'O' the Hills, thence up trail to Lake Angeles passing Ennis Creek on way up. The lower part of trail is thru dense forests, the lake more open and alpine. The next day I made ascent of Mt. Angeles from Heart 'O' the Hills by trail thru dense forests to Heather Park (a shelter there) and from there up trail to a divide from which point one can see the Olympic mountains to the south. From here made ascent of Mt Angeles without trail, arriving at divide between the first & second peak. Turned left and ascended first peak and peak to E then returned to divide between first and second peak from where I ascended the second peak which is made of 3 smaller peaks and where I placed registration cards in a box on top for the National Park, then descended to Heather Park and return to Heart 'O' the Hills. Whether the trail to Lake Angeles is part of trail to Heather Park I cannot remember.

On our trip this year 1978 we left our trailer at Heart 'O' the Hills and drove to Hurricane Ridge. All foggy and rainy most of the way. At lodge on top found several deer in conifers surrounding the lodge and tame enough to approach to within 40'. These deer were eating the tops of mountain Ash trees. Marmot in area and also lower on road on return to trailer. From here we drove back to Port Angeles and thence W on highway 101 to W coast. It is a contrast of cut-over lands <sup>visited Victoria, Canada and then</sup> below & gorgeous climatic forests in the national park. Continued to mouth of Kalaluck River where we pulled into a secluded turnaround among trees for the night. The 50 traps set in super-saturated swale of shrubs & trees and bordered by large <sup>conifer</sup> trees was heavily used by elk and if it had not been for their trails would have found it difficult to penetrate.

Mouth Kalaloch River, Jefferson Co., Sea level, Washington.

Aug. 10, 1978

min temp 54°F., fog & drizzle

From dense growth along elk trails in damp swale. Hemlock and cedar forests adjacent. Considerable sphagnum mosses on ground.

- 780810-1 Sorex 120-54-20-8-8gms. ♂ testis 4 mm
- 780810-2 " 118-54-14-8-6gms. ♀ ut. normal.
- 780810-3 Peromyscus 200-107-22-20-18gms. ♂ testis 5 mm
- 780810-4 " 186-106-23-19-24gms. ♀ no embryos.
- 780810-5 " "
- 780810-6 " "

measurement of three elk imprints in trapping area: 112; 78; 69 mm.  
 Heard a mechanical call of three long notes and followed by 2 short notes. The conifer forests of large trees permit one to move thru the forest but when the forests are in succession of early climax they are difficult to penetrate. Along ocean trees react to winds and form excellent wind barriers on the lee side. The sandy beaches, especially where there is access become crowded the people and campers and tents and it is a circus rather than a proper contact with the true values of a beach. Surf always beautiful and rough on any beach along Washington shorelines and especially S along Oregon beaches. From here to Lake Quinalt thence down coast to Fort Columbia.

Fort Columbia, Pacific Co., 10 ft., Washington.

Aug 11, 1978

From 50 traps set in damp but dry drainage under coniferous and deciduous tree. Considerable down timber and moss covered ground (1/2 mi N above). Cormorant & gulls here.

- 780811-1 Peromyscus 215-123-22-19-20gms ♀ 3x3 plac scars.
- 780811-2 " 208-113-23-19-23gms ♂ testis 5mm
- 780811-3 " 218-125-24-19-22gms ♂ testis 5mm
- 780811-4 " 208-117-23-18-18gms ♂ testis 3mm
- 780811-5 Sorex 135-58-15-7-9gms. ♀ ut. normal.
- SKU 780811-6 Peromyscus 190-102-23-19-17gms. ♂ testis 4 mm
- SKU 780811-7 " 188-106-22-18-14gms. testis 4mm
- SKU 780811-8 " 189-107-22-19-17gms. testis 3mm
- SKU 780811-9 " 198-110-22-19-14gms. ♀ ut normal

Left and at Cannon Rock S of Canyon Beach, recorded photo

780811-11 of high cliff of Canyon Rock & surf. 780811-12 surf among rocks.  
 780811-13 smooth water on beach N Canyon Rock. 780811-14 ibid. 780811-15 surf farther S. 780811-16 beach & Canyon Rock. 780811-17 surf & clouds on mt. at Cape Arch? 780811-18 ibid; 780811-19 nursery tree in tidal waters, Tillamook? 780811-20 nursery tree in tidal waters, Tillamook? Oregon. 101 to Newport, 20 to Corvallis. 5 to Eugene, 58 to Blue Pool Camp.

Blue Pool Camp Grounds approx 2000 ft., 1/10 mi N, 3/10 mi W  
Mc Credie Springs, Salt Creek, Lane Co., Oregon.  
 Aug 12, 1978

From large conifers and deciduous trees along creek captured  
 the following in 10 traps <sup>set last night.</sup> Considerable down timber and  
 friable soils. Rain all night.

770812-1 *Neotrichus gibbsii* 104-37-15-4 (opening) - 7 gms ♀ ut. normal.  
770812-2 *Sorex* 116-51-14-9-6 gms ♀ ut normal.

min. temp last night 51°F. Turkey vultures on E side Coast  
 range. Left and continued Crater Lake Nat. Park via 58-97-138 - to W side  
 lake & then top on S side. Photos here; 780812-3 showing Wizzard Island (one);  
 780812-4 ibid; 780812-5 ibid; 780812-6 just blue lake; 780812-7 Wizzard Is.;  
 780812-8 Erosion gully thru volcanic as of last eruption, W side Crater  
 Lake. <sup>Clark Cray in area.</sup> Continued S 42, 97 Klamath Falls, here valleys, savanna, no trees but  
 later beyond weak stand juniper, thick juniper then ponderosa. 139 into Calif  
 and thence to Canby locality.

6 mi. SW Canby, Pit River, Madoc Co., California  
 Aug. 12, 1978

770812-3 *Spermophilus* 401-168-52-23-340 gms. ♂

The above was a road kill on highway 139-299 and area  
 of slopes of juniper and piñon pine and cultivated bottom-  
 lands.

Summation of blood pressure on trip so far from July 17, 1978 to  
 Aug 12, 1978: 165 (150-190) over 91 (74-100). Taken daily at 7:30 A.M.

92801.3 is mileage where *Citellus* (*Spermophilus*) was collected and  
 recorder is now functioning (malfunction from Seattle to here.  
 Will now continue with recorder. 818.1 Ash Creek in atten.

818.9 now on 139. 819.1 Lassen Co line 824.2 red-shafted flicker  
 at Bieker turnoff, on 139 no gas for 69 miles across desert valley  
 Hayden Hill, a robin. 839.7 just magpie. 841.7 Fairchild Res.  
 about 40 Canada geese and 50 ducks. no ground squirrels  
 in area. 843.4 porcupine Rd. kill. Broad valley to E tilting to

S. Buds rare. 855.2 cliff rose or mt. mahogany capping  
 some mt. tops. This is divide SE of Eagle Lake, marshy  
 valley to S being drained by <sup>manmade</sup> canals. Brewer's blackbirds in  
 valley. 878.6 mule deer rd. kill. 886.3 Susanville at 7:25 P.M.

~~It was somewhere along this route 139 between Canby & Susanville  
 that photo of desert valley & distant mts was taken. no 770812-4.~~

~~at half way point a kit fox rd kill measured 120 mm ear.~~  
 892.2 2 adult golden eagles circling above ridge to E just as  
 road leaves valley for low divide, 7:35 P.M. Just over divide

into next valley, magpie. Slopes of broad valley with grasses sage brush, rabbit brush, mt. mahogany, and conifers from low on slopes to tops of mountains. Shore line of Honey Lake low, 1/2 mile of shoreline exposed. 955.1 Nevada. at 9:00 P.M. Reno at 971.6 at 9:15 P.M. and stayed at United Camp Ground. visited Reno same evening.

Reno, Nevada Aug 13, 1978 min temp. 51°F  
 Left Reno 92980.4 at 9:45 A.M. 099.4 first magpie on I 80.  
 021.0 Coyote road kill. 023.9 white playa lake to N. 033.9  
 marshland of cattails associated with sand dunes. 052.8  
 jackrabbit ran across road and first live one on trip! Area  
 greasewood and bare ground between plants and some cotton-  
 woods with leaves of 2 green intensities. Some shifting sand,  
 hills barren and grass covered, brownish-yellow and in  
 distance can see massive sand dunes coming up over a low  
 ridge from the S. Birds rare except few swallows associated  
 with bridges. very little artemisia in this area. Shorelines  
 Conspicuous on slopes of hills. 060.3 roven. 064.8 playa  
 lake fills this valley. To E and N low boulders line the  
 lake bed, black in color. 068.7 sand dunes to N from  
 out of lake. The water and salt in lake is red where water is  
 standing on side of road. Good shorelines on mt. to E. and  
 interesting slump packets above the lake level. This is  
 along the Pony Express trail. Green goes up to base of mt.  
 then yellows continue up slope, on <sup>to 10</sup> seven major shore levels.  
 Only place artemisia occurs is along abandoned road ways,  
 and there it takes over, no birds or mammals or road kills.  
 Tumbleweed grows on abandoned piles of <sup>road</sup> gravel. 101.5  
 Turkey vulture feeding on rabbit road kill. mts to E zonated -  
 ion of juniper-pinyons with mt ridges bare and good abrupt  
 contact and less abrupt between valley and trees. Grass  
 grows almost everywhere. Occasional jackrabbit rd. kill  
 but maybe one per 2 miles. 105.8 now on slopes covered with  
 artemisia to base of mt - 107.5 Cold Springs. All along has  
 been on alt 50 where it leaves 80 just E of Reno to here. Will  
 continue on 50 Utah, many <sup>mt.</sup> ranges are without juniper-pinyon  
 or other coniferous trees and it is not an altitudinal factor.  
 The valley here is broad, flat, long and higher than the  
 rest of the valley we have passed thru, in fact it is 5400'.  
 114.2 another bald mt. with contrasted conifer timberline to  
 E. and now it looks like it may be a altitudinal factor.



Could be also either wind or soils or combination of two.  
 116.5 turkey vulture. 119.4 middle of valley and will  
 take census of jackrabbit wood kills to base of mountains.  
 122.5 now into white grass zone which is between the  
 flat valley and sage brush slopes at base of mountain.  
 no rabbits so far. Grass is actually a white sage. This is  
 a white sage that looks like a wheat field. Pure stands  
 of thick white sage. Dry lake bed to N. Good hold  
 mt. to E. now it looks like it might be a moisture  
 factor. 126.3 roven on part 126.4 roven on part along rd.  
 white sage now being mixed with regular sage brush. 50-50.  
 126.7 end of white sage brush and now into pure sagebrush.  
 126.9 turn-off to Antelope. Roven & vulture only birds so far.  
 129.3 end of alluvial slopes and beginning of canyon.  
 no rabbit from center of valley to here. Canyon has  
 sagebrush and rabbit brush on slopes. 139.9 Lander Co.  
 line elevation 6348 (new Pass Summit). Sage brush at this  
 level and higher beyond. 139.4 Summit mt. Ariz? 6639 feet  
 now the mountain ahead of us across the valley the  
 dwarf forest of juniper and pinyon is much lower and  
 starts at base of mountain and goes up only 1/5 the height  
 of the mountain and the rest above is non-tree area. One  
 patch of white sage from trees to middle of valley, other  
 areas the blueish colored vegetation goes up to the trees,  
 without white sage interruption. Tree on south exposures,  
 not N exposures which is contradictory to growth on most  
 ridges (more on N exposures). S on W and fewer on N & E,  
 which means that the sagebrush normally occurs above  
 pygmy forests and not below them. 144.2 photo of  
 range on E side of valley no 780813-1 showing what I  
 have just alluded to. Last picture on reel. At this point  
 the higher peaks have a conifer (probably Douglas fir) on the  
 upper slopes. The exposures are as above and the basal  
 line of pygmy forest conforms to contact of slope and beginning  
 of alluvium regardless of height of alluvium. The vegetation  
 above the pygmy forests seems to be same as below forests on  
 alluvial fans. Green of valley (flat part) is greasewood.  
 Sage brush is blue. <sup>(fragrant odor in sage brush zone)</sup> white just before trees is white sage.  
 119.5 Reese River just a trickle 151.2 3 turkey vultures.  
 152.5 Turkey vulture. Slope seems to be the deciding factor  
 in pygmy forest distribution occurring on steep slopes or sandy  
 areas.

that tongue out on the valley floor. 157.2 middle town  
 of Austin, at 2:07 P.M. 160.7 Austin Summit 7484. Most  
 trees on E side summit are pinyon, some juniper and  
 mt. mahogany. 171.6 from this valley the range on the E  
 side of valley has conifers growing on N exposures and  
 not on S exposure as was true of ranges W of us. Most  
 ranges have <sup>patches of</sup> snow on E side, and some of the higher ones  
 on the W side. Practically no sign of diggings by badgers  
 or squirrels. 204.3 15 nighthawk and first observed  
 since California and the above in a localized spot. This  
 broad valley is over 6,000 ft. high. 227.9 Eureka, at  
 5:07 P.M., turkey vulture and mourning dove. It is incredible  
 how few birds have been observed, 5 bluebirds. 232.4  
 magpie and chipmunk. First chipmunk in Nevada.  
 235.2 first cottontail in Nevada (live). There have been  
 one or two cottontail rd. kills per valley. 255.6 Redtail -  
 like could be ferruginous roughleg. A second one 1/10  
 mile beyond and a close look proved them to be ferruginous  
 roughlegs. 259.0 Cottontail and jackrabbit road kill.  
 Raven. 93267.5 Kit fox road kill, 7100 ft and ear  
 measured 120 mm, among sagebrush and not too far  
 from juniper and pinyon. Cottontail road kills about 2  
 per mile thru passes of sagebrush and associated trees,  
 whereas on valley floors 1 per 5 miles. 272.6. magpie.  
 1/10 mile beyond 3 magpies. 275.7 5 raven at a pond  
 along with a few cattle. There is an increase number  
 of birds and mammals as one travels E across Nevada,  
 especially east 1/3 of state. 284.4 second group of 3 nighthawks.  
 293.0 in this valley the pygmy forms seem to come down  
 farther onto the mountains than to the W. 293.8. 2 raven  
 and trees more completely cover the entire mountains,  
 than farther W where they are relegated to lower slopes.  
 Copper. mt. in distance to S. 297.4 raven, sage thrasher.  
 303.6 6 magpies 306.3 Ely now E. 337.4 jackrabbit  
 ran across road in lights of car. 357.0 stopped at a  
 spring for night. <sup>9:00 P.M.</sup> Set 50 traps in saturated grasses and  
 willows along <sup>and</sup> spring course, wherever there were microtus  
 runways. <sup>along spring</sup> Few cottonwoods, dense patches of willow, squaw  
 bush, rabbit brush, sagebrush, juniper beyond on hills.  
 Few bats foraged in evening over spring area and open  
 places beyond.

Willow Patch, approx. 7000 ft., 8 3/10 mi. W, 7 2/10 mi N Baker, highway 50, White Pine Co., Nevada.

Aug. 14, 1978

SK	<u>780814-1</u>	Peromyscus	148-62-20-19-17, <sup>gms</sup> ♀ ut normal
SK	<u>780814-2</u>	"	150-64-20-19-15 ♂ testes 8 mm
SK	<u>780814-3</u>	"	153-68-21-19-15 ♀ ut. normal
SK	<u>780814-4</u>	"	144-62-20-18-15 ♂ testes 3 mm
SK	<u>780814-5</u>	"	159-62-20-19-17 ♂ testes 5 mm
SK	<u>780814-6</u>	"	[145]-[50]-21-19-19 ♀ ut. normal
SK	<u>780814-7</u>	"	147-63-20-16-13 ♂ testes 3 mm
	<u>780814-8</u>	"	154-64-20-18-14 ♂ testes 4 mm
	<u>780814-9</u>	Reithrodontomys	155-77-18-14-11 ♂ testes 7 mm

mammals from trapline were accepted to be microtines because of the numerous runways but these runways were used by Peromyscus. mammals in area: Eutamias, Citellus variegatus, Sylvilagus, Lepus californicus, Cottontail in open areas until sunrise then retracted to willows near spring later in morning after sun rays arrived at springs. woodrat house. Bats looked like long-eared and may have come from cliffs on E side of springs on mt. no deer tracks. Birds: 24 piñon jays call continuously until at least 9:00 AM when we left. Robins (20) active in early morning then left. Birds busy in morning inactive later. Song sparrow. Evening grosbeak. Solitaire. humming bird sp.?, One piñon jay came to trash barrel and then left. 9:00 AM can see 3 cottontails in sagebrush 50' from willows. Jackrabbit feeding on hillside (W) 200' from spring in rock, sagebrush, piñon area. Cottontails never seen beyond 100' from spring. Min. temp last night 38°F. Left at 357.0 mileage. water surface at least 2/10 mi. down canyon. Sage thrasher at camp & come in for water. Wheeler Peak with new snow. 360.0 turn off to Beaver Cr. 300.8 turnoff to Strawberry Creek. 364.1 junction 73 which goes to Lemman Caves. 365.7 sparrow hawk. 369.3 junction 74 highway to Lemman Caves. At Lemman Caves 375.0 mileage. Question naturalist at Lemman Caves Natl Mon. and they had never seen a kit fox in area. Left at 12:10 A.M. 380.0 2 roven on utility post 6 inches (the rovens) apart. Snow still on Wheeler Peak. 382.2 redtail. 385.5 Now on regular 50 going E. 388.3 roven. Will count rabbit kills across this

valley. Valley mainly in grease wood, jackrabbit rd kill, 93392.2 Utah border. Informed that 2 days ago rain in valley and snow on mt tops and prear to rain was only 1.3 inches this <sup>since</sup> last month. (May). Standing water along side of road. 410.3 now into piñon forest. Jackrabbit + cottontail just before forests. 411.3 thru main stand of juniper, no rabbits. 412.8 jackrabbit road kill, monarch butterfly. 415.3 divide, <sup>6400'</sup> no rabbits except those previously mentioned. 419.6 cottontail road kill, and 420.3 out of steep canyon. 422.8 golden eagle circling above valley. 425.7 road to Painter's Spring. Good exposure of Cambrian to N + Bonneville level to right. 434.8 area of 5 or 6 isolated boulders of which their derivation is a big question mark. 443.7 no rabbits since last seen. Sevier valley to right. 449.8 where power lines cross valley vegetation is sparse and not over 1' high, most 6". 453.0 under high power lines. Lava flows and cones conspicuous to E. Some standing water along side of road. 466.7 rabbit road kill at N end of lava flow that intersects a peak of a cinder cone to the E. The valley W of Eureka, Utah is the only place I know of that supports juniper-piñon forests in the valley as well as the slopes. I would look here for Indian habitation because of the protected nature of the valley and trees and nearness to Utah Lake. Continued to Eureka, thence along W side of Lake mt to Lincoln beach and then backroads to Provo, arrived 39590.0 Stayed at Mary & Don Jensen's overnight.

### Provo, Utah

Aug 15-16, 1978


Visited with Mary & Don and left Aug 16 at noon. at Springville left 3 photos of Pauls Salisbury Paintings of mine to add to their catalogue of Salisbury's work, now at bank for exhibit and security. Continued to mouth of Spanish Fork and photographed S side canyon at mouth where Bonneville level meets the canyon. It is interesting that the Bonneville level was never developed on walls of canyon or has been erased since Bonneville lake times by Spanish Fork River. Photo no. 780816-1 Provo level in canyon below. Note absence of erosion of Bonneville terrace from drainage to right of Contact of level with canyon. mileage 93606.7 here.

639.3 <sup>line</sup> Wasatch Co., at Saldier Summit on highway 6 at 2:00 P.M.  
 642.0 back to Utah Co line as we move along. Juniper  
 trees here are more compact and conical than in W Utah.  
 no magpies. Few Brewer's blackbird (20 one group). 651.1  
 Carbon Co. line. 93669.9 after lunch left Price at 3:15 P.M.  
 707.8 Price River. Photo 780816-2 of red rocks at entrance  
 to Arches National Monument near headquarters, 783.5  
 now going up road <sup>128 highway</sup> on S side Colorado River N of Moab.  
 785.5 Photo Colorado River up stream, no 780816-3 note  
 recent scar on cliffs beyond, maybe lightning. River clear.  
 no 780816-4 same as above. 802.5 Photo 780816-5 to S of  
 washout road. note reddish color of soil. water 1 gal per  
 10 sec. 805.1 telephoto to E 780816-6 of fine stratification  
 which should be measured for periodicity (maybe from this photo),  
 and 780816-7 to S of structure similar to monument valley.  
 To N of first photo <sup>cliff</sup> has collapsed (Cliff forming rocks) and  
 formed talus at bottom <sup>780816-8</sup>. 808.4 Photo Colorado River and  
 slopes to La Sal mts in in background no 780816-9. Photo  
 780816-10 ibid, deer tracks along sand among willow along  
 side of river. 813.7 <sup>narrow one-way</sup> bridge across Colorado River. Photo  
 780816-11 of cliff forming rocks + stratified rocks below  
 was taken after the last photo but did not record exact  
 position. 816.8 now leaving river. 828.0 Cisco, at 7:55 P.M.  
 Only birds observed from river bridge over Colorado to here  
 were 5 mourning doves. 830.0 2 ravens, white sage in area.  
 830.9 have seen 20 mourning doves and they are increasing  
 in number which could be a function of time of day. Will  
 make census (831.1) for a distance. mourning dove, mourning dove,  
 3 mourning dove, 1 mourning dove, (sundown 8:00 P.M.), 10 (group)  
 mourning doves, 833.5 Interstate 70 now, and end of  
 mourning dove census. Average doves from 831.1 to 833.5 or  
 2.4 miles is 16 mourning doves or 6.7 doves per mile in contrast  
 to almost no dove across most of Nevada. 850.9 Colorado  
 State line at 8:30 P.M. Continued to Colorado National Monument  
 Camp Ground on top ridge. mileage 93877.8

Colorado National Monument, W Grand Junction, Colorado

Aug. 17, 1978

93877.8 mileage and left at 8:30 A.M. Min. temp last night 67°F.  
 made seven photos of Colorado National Monument and they are:  
 780817-1 near Camp grounds on top (N end) looking up valley.

780817-2 to n showing shear cliff from top ridge to all most valley level. 780817-3 ibid. Colorado River in valley below. 780817-4 ibid showing more of Colorado River and Grand Junction valley below to n. 780817-5 upper part of cliffs same as in above showing basal part, view to W. 780817-6 Grand Junction valley view to S of general area of camp on top and cliffs featured in above photos. Overturn in middle grounds (profile ) 780817-7 ibid. Continued to Grand Junction on highway that bi-passes to n and at mouth of canyon E Grand Junction photo 780817-8 of Book Cliffs at 903.9. Photo 780817-9 ibid. 909.1 Colorado River at E end valley and beginning of canyon. 924.7 turkey vulture, 18 gulls on river and a raven. 929.4 Colorado River bridge. E side cliffs or in slides and on S side or eroded into gullies. 932.0 Garfield Co. 935.2 photo to n of Cliffs. <sup>780817-10</sup> Interesting benchlands at base cliffs. man is already defacing these magnificent structures with mines and roads. There is a definite distribution of junipers according to exposure etc. Morrison formation may be the upper capping of cliffs. 949.3 turkey vulture. 955.5 2 turkey vultures. now entering life. 960.6 turkey vulture. 964.3 Silt (City) at 12:15. Visited Glenwood Springs and took two photographs of Mel and Si Evans nos 780817-10 and 780817-11. Left 993.5 at 3:30 P.M. Palus below Cliffs built by streaks at Glenwood Sp. 94012.3 redtail. 940 Thence Dillon, leaving there at 6:45 P.M. all along 70 interstate. At Dillon chatted with Thomas Evans, superintendent Nat. Forests arrived Strasburg at 94201.7 after going thru Denver, all on I 70. arriving 9:30 P.M.

Strasburg, Colorado.

Aug. 18, 1978

Left Strasburg 7:30 A.M. Sky cloudy thruout area but by individual cumulus rather than solid mass. Temp. in trailer 60°F. now at Agate and no birds so far. 240.4 fields along way green for this time of year (natural slopes). 259.0 marsh hawk. 94343.3 Kansas line (via Linn on I 70) at 10:20 A.M. 440.9 road kill badger. 441.5 Granfield overpass. 491.8 beginning Ellis Co and will keep complete list birds across co. 2 swallows, w. Kingbird, 3 barn swallows, 2 barn swallows, 3 barn swallows, 3 barn swallows, 523.5 Russell Co. 5 barn swallows foraging over group of cattle. 527.8 badger

rd. kill. 2 barn swallows, mourning dove, 532.2 redtail.  
 2 barn swallows, mourning dove. 538.4 frogleg hawk,  
 543.4 at 4:30 P.M. Some ponds have white caps. 3 swallow.  
 553.9 Beginning Ellsworth Co. 3 barn swallows, 2 barn  
 swallows, swallow, swallow, 2 barn swallows, swallow. I  
 would consider that barn swallows are generally distributed  
 across Kansas so far and in singles or small groups which is  
 peculiar. Swallow, 571.4 Coyote rd. kill. Swallow, swallow  
 (all swallows are barn swallows), 577.4 Lincoln Co., 578.6  
 first meadowlark since in W part Colorado, mourning dove,  
 Country green and ponds not as high as in west. High wind  
 all across Kansas from NNE. 2 mourning doves. 584.7  
 Saline Co. 2 mourning doves, 2 swallows, Exit 252 to Salina  
 601.8. no birds thru Salina area but just beyond swallow,  
 Swallow. approx. 30 redwing blackbirds and first group observed  
 across Kansas. 615.6 entering Dickinson Co. Swallow,  
 mourning dove, mourning dove, swallow, mourning dove,  
 mourning dove. 639.3 Geary Co. mourning dove, mourning  
 dove, decrease from W to E of barn swallows. 3 crows.  
 645.4 turkey vulture, having difficulty soaring because of high  
 wind. 648.5 Smokey Hill River. + low at 6:30 451.5 8  
 turkey vultures one group on ridge E airport. 658.7 McDowell  
 Creek. 664.3 Manhattan no. 313 turnoff. at 7:00 P.M. 2  
 mourning doves. 672.6 Wabamsee, 2 swallows. 684.1  
 Mill Creek, mourning dove, 8 swallow, flock 30 mourning  
 doves & first flock seen, 5 mourning doves, mourning dove.  
 692.7 exit 342 at 7:30 P.M. (exit to Wabamsee Lake), swallow,  
 12 swallows, 30 swallows, 12 swallows, swallows are in  
 a band of 3 miles wide. mourning dove. 696.8 Shawnee Co.  
 8 swallows. 6 swallows. 5 swallows, 8 swallows, 20  
 swallows. Swallows are in localized area. They seem to be  
 much larger flocks than in other parts of Kansas to W. 701.7  
 Mission Creek, 2 swallows. 8 grackles, 5 swallows,  
 3 mourning doves. 470 E around. S part of Topeka. 4  
 mourning doves, 40 grackles & redwings (group), 8 redwings  
 60 grackle & redwings. 716.0 road to Shawnee Lake on  
 Stull road. 7:00 P.M. Chimney swift, swallow, killdeer, bluejay,  
 2 robins, 3 robins, 3 robins, robin, 8 mourning doves, mourning dove.  
 grackle, country green <sup>some flooding</sup> ponds full. 723.7 Douglas Co. at 8:10 P.M. 30  
 barn swallows. 726.7 Stull. Sundown 8:00 P.M., cardinal. 25  
 swallows. (census across Kansas complete at Stull. Arrive home (Lawrence)  
 94739.7 at 8:20 P.M. Travelled 6122.4 miles to Seattle and back

402 Yorkshire Dr., Lawrence, Kansas

Aug. 24, 1978.

On approx. this date, Annette C and her friend from Seattle returned from canoeing trip in Ely, Minnesota-Duluth area and stayed in Lawrence for a couple of days. Took three photos of them:

780824-1 Silhouette of 2 girls sitting on chairs in reflection pool in back yard.

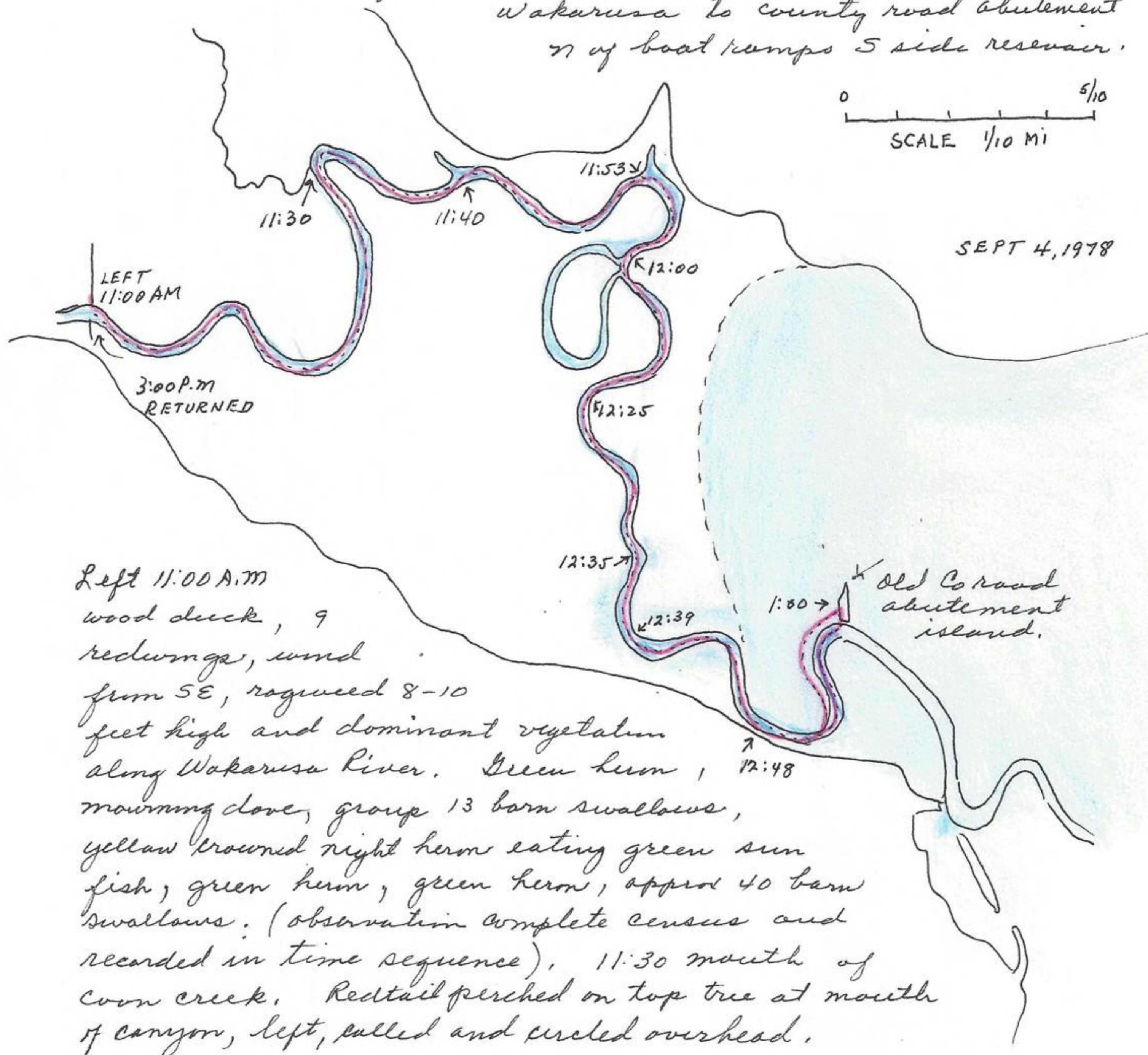
780824-2 ibid.

780824-3 Close-up in front yard.

Clinton Lake, Douglas Co., Kansas

Sept. 4, 1978

made canoe trip from <sup>old</sup> Clinton bridge site N Clinton over Wakarusa to county road abutment N of boat ramps S side reservoir.





7 redwings, 8 robins, flock 210 redwing blackbirds including adults and short-tailed young preceded canoe down river. 4 goldfinch. 11:40 lateral channel near hillside at N bend. Snowy egret in channel and left to fly to Wakarusa. Great blue heron, 4 redwings. 11:53 Petersons Pond cove. Trees that are deepest in water (from rising reservoir) turning red and are the small ones 8-10' high (maples, ash, elm). E Kingbird. Inundated trees green earlier in year. In one tree 10' high in water, one adult E Kingbird and 4 young. 12:00 entering tree island along Wakarusa. (There are 2 islands of tree between N & S sides of valley along the Wakarusa. 2 snowy egrets, great blue heron, 18 grackles in trees, 2 E Kingbirds in one tree. 2 wood ducks, 3 bluejays, 2 wood ducks, 2 crows, snowy egret, black-crowned night heron. 12:25 out of timber, 2 great blue heron, 12 bobwhites, 2 E Kingbirds. 12:35 old CO road bridge site. 2 green herons, 1 great blue heron. 12:39 out of timber, great blue heron, 3 snowy egrets, 3 great blue heron, killdeer, swallow groups average 4 per 1/10 mile. 2 blue-winged teal, 2 killdeer. 12:48 Contact S side valley. 2 great blue herons, 1 snowy egret. Arrived cord abutment island 1:00 P.M. This knoll is 4' high as good vantage point. From this knoll can see 12 great blue heron, 3 on wedge of marsh-lake Contact to W, 4 in weed islands to E, 7 in top of tree on second tree island to W, 2 vultures alighted 8 feet from great blue heron in this tree but great blue herons outstretched their wings and prohibited the landing of the vultures, also 1 cormorant in same dead tree, also visible were 16 snowy egrets along the reservoir-marsh Contact to W from Rattisnake Point to S side valley. 14 snowy egrets arrived to area from W as did 1 great blue heron, 8 killdeer and 1 unidentified sandpiper at knoll. Left knoll and returned to starting point along same route. Listed some observations: redwings in groups of 5-30 all along way and all flying E, and at least 20 times more than this A.M. Cardinal. No dead fish. Can see thru water down to 5"-8". Arrived put-in at 3:00 P.M.

402 Yorkshire Dr., Lawrence, Kansas  
 Sept. 9, 1978

Between sundown and twilight along Yorkshire Dr from Peterson Road to Westchester (distance 11.0 mi) observed a localized concentration of nighthawks directly above the macadamized black-

11:55 2 redheaded woodpeckers came to edge of river, flew across river to inspect me as I lunched along the S side of the river. then they returned to sidehill to N. There is an unusual number of red-headed woodpeckers in the hillside forest. 2 green herons, few redwing blackbirds up valley. 3 bullfrogs so far. Hoze lifted and clouds now showing. 12:06 begin trees. great blue heron and 2 snowy egrets. 6 wood ducks (4 on a log and 2 in trees above them, 1 great blue heron. Spartania plants are growing from top of submerged log (partly emergent)



tapped road (houses on each side, lawns & small trees and open field N of Peterson Road). There were approx. 80 birds foraging in this area (1/10 mile and house to house wide) but mainly over the road. Heavy haze in air, <sup>Temp. 85°F</sup> They foraged from 2' over road to 40' high. They did not react to 8 people in the area observing their feeding. I could not see any concentration of insects in the air although they were successful in capturing something in the air. Above the nighthawks were approx 300 chimney swifts feeding in some area but from 40' to 200' above the nighthawks. This was definitely a localized aggregation of nighthawk that remained in same area for a definite period of time. I witnessed several such groupings on vacation this summer (see trip to Seattle and return).

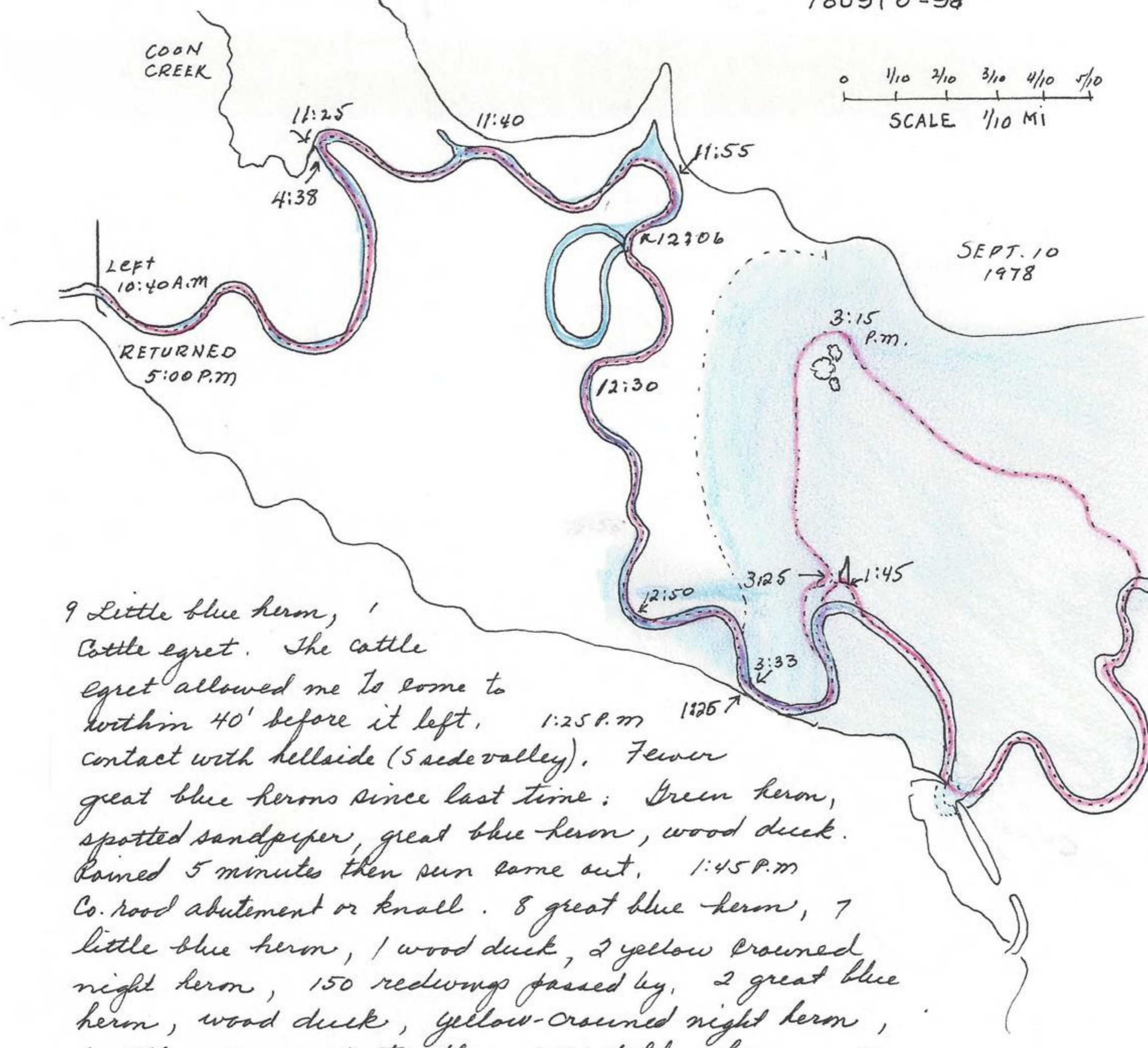
Clinton Reservoir, Douglas Co., Kansas.

Sept 10, 1978

made canoe trip on Wakarusa river to reservoir and return. (see next page for map). This part of the river is some level as lake but for most of its course <sup>the water is</sup> still in the old river channel. There is some places where reservoir extend beyond banks.

Left 10:40 A.M. water 6" deep 81°F, surface 83°F. Wind from S. 400 redwings in roagweeds, some at water edge and they seem to be resting (as in all these canoe trips a complete census is recorded. 5 barn swallows, 3 barn swallows, 2 barn swallows, 90 chimney swifts in 1/10 mi area and very few beyond this localized area. Green heron. 11:25 mouth Coon Cr. 1/10 mi. before 5000 redwings left from roagweed in increments every 3 seconds. Wind at back on river trending NE, in face, <sup>river</sup> trending SE Redwings flying by in flocks and in roagweed are in flocks and only few between flocks. Some flocks leave all at once in contrast to those SW Coon Creek that left a few at a time. To date from start there have been 3 flocks of 5, 1, 2 thousand each flock pass overhead. Some flocks join other flocks. Three butterflies so far and these are the white cabbage butterflies, <sup>and lateral bay or channel</sup> 11:40 Contact with hellside. First snowy egret and great blue heron. Can hear red-headed woodpecker in dead forest, Snowy egret, yellowlegs and little blue heron. 12:30 out of trees. 2 crows 2 wood ducks, green heron, 2 green heron, 1 blue winged teal, 1 great blue heron. Although trees are inundated there are no trees that have fallen. 12:50 out of trees. Little blue heron.

OPPOSITE PAGE



9 Little blue heron, 1 Cattle egret. The cattle egret allowed me to come to within 40' before it left. contact with hillside (S side valley). Fewer great blue herons since last time: Green heron, spotted sandpiper, great blue heron, wood duck. Rained 5 minutes then sun came out. Co. road abutment or knoll. 8 great blue heron, 7 little blue heron, 1 wood duck, 2 yellow crowned night heron, 150 redwings passed by, 2 great blue heron, wood duck, yellow-crowned night heron, 6 yellow-crowns together, 1 great blue heron, 2 snowy egrets, yellow-crowned night heron, wood duck, 3 black crowned night heron, wood duck, 6 black-crowned night heron, 1 green heron. now at erosion bank of old Wakarusa River where there are numerous concretions on bank and throughout the strata. Cormorant, 10 cormorants, 4 great blue heron, 3 wood ducks, 1 tern (sp), 31 cormorant NE 3 ring-billed gulls, 1 tern. now leaving old <sup>road</sup> bed and travelling E above old channel between <sup>5</sup> shore and islands of vegetation (emergent) to N, toward 3 cottonwood tree inundated to the NW. These trees are associated with a co. road that at one time ran S from Rattlesnake Point to river. 14 great blue heron, 8 black Crowned night heron, 3 tern. Turkey vulture to 5. All of the emergent vegetation <sup>deep part of</sup> in lake has purple flowers. There are no cattails or bulrushes in lake.

3:15 P.M. 3 cottonwood trees SO of Rattlesnake Point, 8 great blue heron and 7 egrets in bay to SW, 4 mallards, 80 bluewing teal in one flock, 3:25 vantage point on old Co. road.

Hillside Contact 3:33 P.M. Review in island of trees nearest Peterson Pond area (proposed site for swimming beach). Grackles more a forest bird than redwings. Second turkey vulture at Petersons Pond at 4:20 P.M. Spotted sandpiper here. 4:38 mouth Corn Creek, 6 wood ducks, 2 blue wing teal. Back at 5:00 P.M. at site of old bridge N<sub>1</sub> Clinton.

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

Sept. 20, 1978

Juddy Bailey presented me with a ruby-throated hummingbird picked up at Mississippi and 11<sup>th</sup> St. no. 780925-1. It was picked up at base of window, dead.

Clinton Reservoir, Lawrence, Douglas Co., Kansas

Sept 24, 1978

at 10:30 A.M. observed from S end of dam, 39 cormorants on log to W about 4/5 way between dam and emergent aquatic vegetation, 6 common egrets in open water along vegetation (emergent aquatic). They have a 45° feeding stance. Also 5 great blue herons, 98 pelicans, 6 little blue herons, 2 crows, 3 ring-billed gulls. 95 pelicans left Rock Creek Bay, circled 5 minutes then moved S beyond reservoir. Photo 780924-1 of dam from S side on hill in same position as other photos showing development of the dam. The common egret is slightly smaller than the great blue heron, Photo 780924-2 S end towards Rock Creek. *Polygonum pennsylvanicum* with white & purple flowers on different plants of some species. (homogeneous)

Lawrence, Douglas Co., Kansas

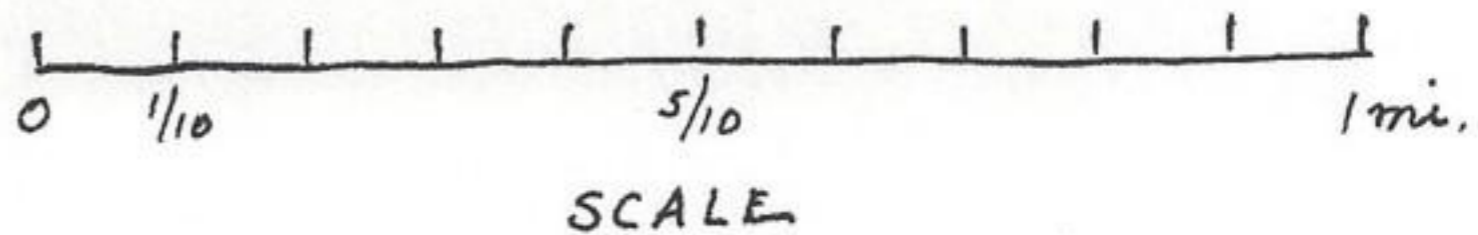
Sept. 28, 1978

Line of grackles (and other blackbirds probably redwings, starling, cowbirds & robins but predominantly grackles) at 15 minutes before sundown from Girl Scout Camp to at least over Iowa and 23<sup>rd</sup> Street. Line continuous from 15 minutes at about 50 birds per 3 feet (line 60' wide in the overage). 780925-1 <sup>Ruby-throated</sup> Hummingbird ♀ keeled on glass window of Law building, Univ. Kansas, Lawrence, Kansas

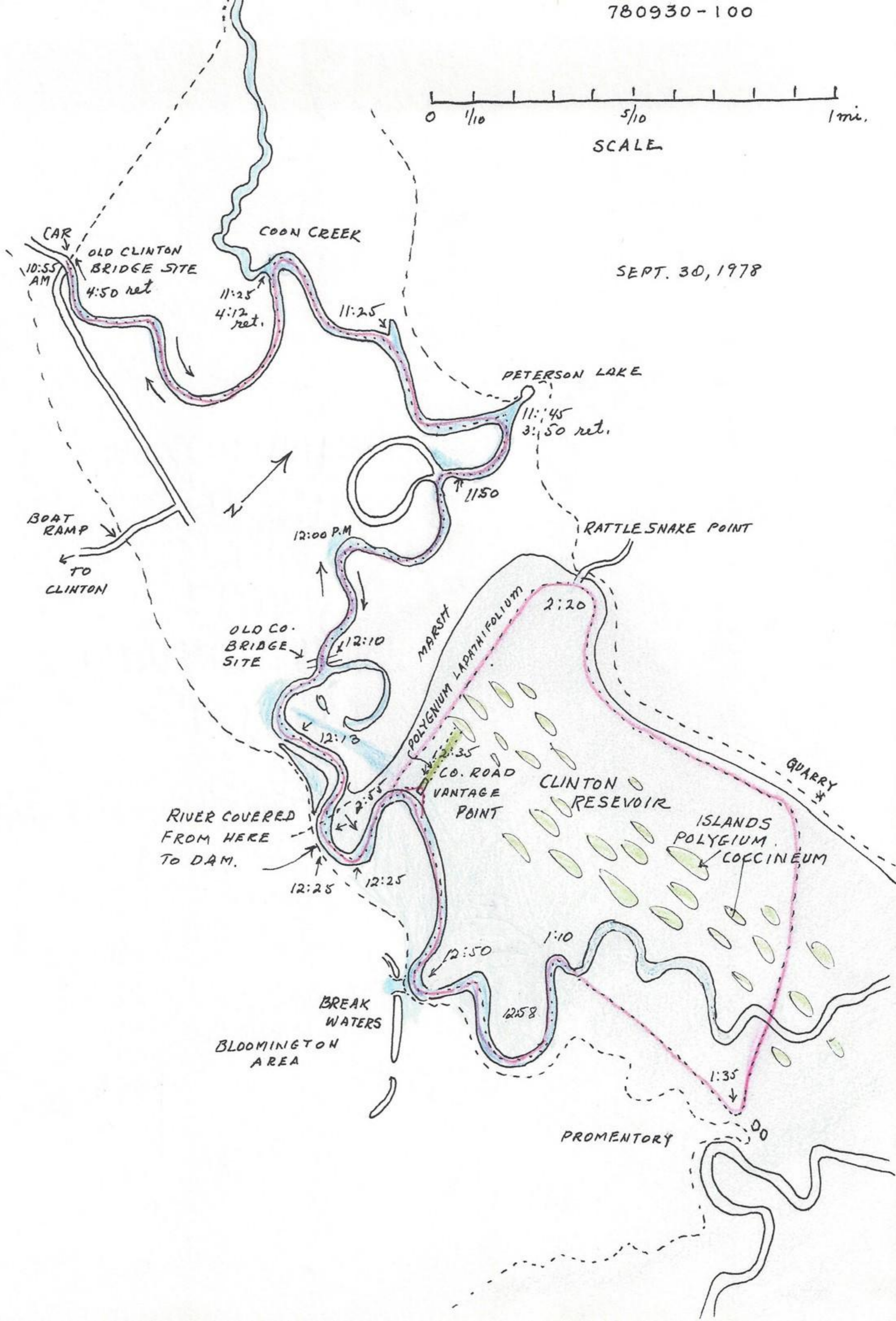
Clinton Reservoir, Douglas Co., Kansas

Sept. 30, 1978

Trip by canoe to main lake, to E from Clinton bridge site N of Clinton.



SEPT. 30, 1978



Left 10:55 A.M. Sky clear 1/2 hour ago but now with cumulus clouds with dark bases. Breelent blue sky between. Wind from NW, 8 MPH. At put in on the N side of old Clinton bridge at cormorant flew up stream then returned, another fed in river about 200' down stream. Also a pied-billed grebe surface right in front of me with a large sunfish (bluegill) in mouth. It immediately submerged and resurfaced down stream 40' with fish still in bill and then submerged again. Flock 80 redwings in weeds by put-in. Wind now about 12 MPH. 4 small flocks redwings flying W rather than E which they have usually done on <sup>latest</sup> The past trips down the river. 11:25 Coon Creek (mouth), <sup>marsh hawk</sup> One cormorant left mouth of Creek. flew down river, circled and come back again and attempted to land by got up again and flew down river again. 400 redwings got up out of weeds, mainly ragweeds. Pleasant in sun but cool when sun goes behind a cloud. 11:25 lagoon at contact with N side of valley. Great blue heron, pied-billed grebe. Since Coon Creek, 2 flocks of redwings (30 each). Can hear bluejay in deciduous forest. yellow-shafted woodpecker in dead tree on hillside. Great blue heron, several <sup>inundated</sup> red maples along side of river and in natural fall colors. Less wind on lee of hills. 11:45 A.M. Peterson Pond, good breeze coming out of valley, cormorant left water here. The lee winds off ridge to N depends on configuration of the ridge (in height). Second cormorant left Peterson Bay. They have the tendency to want to return to the same area. 50% of hillside trees in greenish yellow, but not true yellow of fall colors. Rest good summer green. 11:50 beginning of trees of island and beginning of duck weed aggregates, especially S side of river at bend in among trees. more color changes in these riparian forests, principally reds. Great blue heron, cormorant, great blue heron, turtle dropped off log. wood duck left from 1/2 way up trees as did the 2 great blue herons. Another great blue heron, wood duck, trees shield most of the valley wind. Cormorant with a catfish in bill and I would judge it to be 9 inches long and almost as thick as the head of the cormorant. It dove, resurfaced, flew 40' down river, then dropped fish and swam down the river. The uplifted head of the cormorant seems to be adaptation for looking above than below. Catfish regained composure & swam away

when I attempted to catch it for measurements. Tried to swallow it head first. 12:00 out of tree area. Great blue heron and 8 ducks left just before leaving trees. 2 great blue heron here. water silo, up this week and it look out of place. Should have made one a low profile below level of trees. Cormorant up off water down river and instead of leaving down stream, flew upstream over cones against the wind. 5 paddles on water into wind verses 14-16 down wind. 6 cormorant on emergent logs and stumps, 2-3 feet high 1/10 mi. N old co bridge site, and were able to leave into wind without hitting the water, 2 blue-wing teal. 12:10 old bridge site and into trees along side. 12:13 out of trees. great blue heron, red-headed woodpecker from S to N. to second island. 3 great blue heron in lake to S (inundated field). Can see single pelican flying E across lake. Immature blue-wing teal and 1 little blue heron in E end lake by marsh vegetation. 8 cormorants on logs in water and 15 blue-winged teal at edge of bay. 12:25 contact with hillside to S. Pelican alighted almost to dam in main lake. 6 other pelicans to north towards Rattlesnake Point. 6 blue-wing teal left, crow, 12:27 now to N. 8 coast 12:35 Co. road vantage point island. Can see 250 pelicans circling high above W end of lake. 48 cormorants left water near island. 5 great blue heron, 1 black crowned night heron, 40 blue-wing teal, 3 common egrets. Enough wind to create was 8 inches high. 280 coast W end lake in compact group, another group 30 green-winged teal, and ♂ & ♀ pintail. The pelicans have now moved E to lake near middle of dam and are still circling high and now dropping down onto lake. Leaving from vantage island at 12:40 P.M. 2 barn swallows and first ones observed on trip. 5 common egret in emergent vegetation to N. in main lake. 5 pelicans in bay to N. Cormorant 12:50 at mouth of marina. Marsh hawk. 12:58 next meander to E (river flooded here) where many night heron were observed on previous trip. Pelican now just landing to E. yellow-crowned night heron. Only 8 black-crowned herons got up where on a previous trip at least 30 were in the same area. Water level on bank shows water had been up 2 inches not long ago. 1:10 now E in open lake (shore still to S). Pelican in island to E at



promontory of land and vegetation. Groups of 1-2-3 mainly. 22 cormorant up off water, marsh hawk flew by. marsh hawk 1:25 One pelican approached me, circled twice and gave squacking sound as did one pelican on last trip by canoe into this area as if it may be same pelican. 80% of pelicans are resting, the others preening and standing upright. I would estimate there are 250 in this group and 40 others feeding along the marsh in W part of lake. Pelicans coming in about 1 per minute. Reds are associated with maple along water courses (inundated) and not on hillsides. Left 1:35 P.M. In general more cormorants in W end of lake than at promontory part of lake. Did not disturb pelicans. The color is redish-brown from dead trees in lake but some still are green even though inundated. Islands of Polygonum break wind action. There are fewer egret today than on previous trip (see last visit). 38 cormorants and 4 pelicans in vegetation islands, the cormorants are on floating or partly submerged logs. Passed one pelican 100' away and it did not leave from water. Some pelicans from Luck Cr bay have been moving N across the promontory. Pintail only duck seen in lake area, east. Polygonum still green with purple flower. Continued thru islands of Polygonum and now along N shore just below rock quarry in State Park. Along the N shore, the yellow trees are the ones inundated along the lake. The color is not on slope or ridge but a greenish yellow. Temp. in Sun 92°F. 2:00 P.M. going west on N side lake. Great blue heron left tree 8 feet above water. Four great blue heron left edge of water among trees. This area is protected from the NW winds and is warm and comfortable. First turkey vulture. Spotted sandpiper. Relative few birds on N side compared to S side of lake. 12 bluejay moving E along ridge. The old Synaptornis marsh at joint is inundated and although more extensive to W is also standing in water. 2:20 P.M. rattlesnake Point and only glass cattails are growing in lake area. They have been here associated with springs. 27 pntails and 1 widgeon, and 1 gadwall among group. Estimate 300 pntails in area. 15 mallards, 200 coast, 10 gadwall + 200 green-winged teal. Collected the two species of Polygonum. 2:55 now at hillside on S side lake and continuing up Wakarusa. On way back observed 2 turkey vultures. Estimate 10 common

egrets, 4 great blue heron. Some willows *mûrume* red.  
 3:12 old bridge site. yellow-crowned night heron in trees.  
 Very dark bird when flying away from one. Confiding to 10'  
 before it left. Cormorant just ate fish and then regurgitated  
 it before taking off. Fish alive, and 10" long. Sky now only  
 5% of sky, less wind. Only 8 barn swallows today. 3:50  
 Peterson Pond. 4:00 lagoon at contact with side of valley.  
 Redtail, left tree, screamed and left area. no monarch  
 butterflies today. The polygonum in main lake have pink  
 flowers in deep parts of lake and white in shallow parts  
 like <sup>over</sup> the old road bed of the vantage point. The white  
 flowered species is along the banks, the bluish in the  
 deeper river. yellow night heron mouth Corn Creek,  
 4:12 at Corn Creek. Pied-billed grebe and cormorant here.  
 The pied-bill grebe will occasionally surface with just part of  
 head and eyes exposed, then submerge again. 4:30  
 air temp 71°F (sun under clouds), water 72°F. Arrived at  
 old Clinton bridge site at 4:50 P.M. 2 frogs here.

From the lake today collected the following aquatic plants  
 and had them identified by Ron McGregor at K.U.

*Polygonum lapathifolium*. white flowers and plant from  
 shallow part of lake, a good example is over old road  
 bed that goes S from Kattlesnake Point to Wakarusa  
 River, especially southern end near submerged river.  
 Shallow water is over this road bed. Also along edge  
 of river W beyond lake. white flowers nearly gone. (T) =  
 flower petal.

*Polygonum coccineum*. From deep water of lake and  
 forms the emergent aquatic vegetation in the middle  
 of the lake between W end lake and the main lake  
 W of dam. Red flower (to pink). Strictly in deep water and  
 deeper part of river. Still green and in good condition,

*Polygonum pennsylvanicum*. Red and <sup>or</sup> white and homogeneous  
 for pure colors. <sup>7/17</sup> all red in one plant and all white  
 in another plant. These are on dry land away from water,  
 same species

Clinton Reservoir, Douglas Co., Kansas  
 Oct. 1, 1978

From S end of dam on road can see 105 pelicans generally  
 distributed in main lake W of dam. 700 pelican in resting  
 area on promontory where yesterday there were only 250.

Only 4 pelicans in Rock Creek Bay. 11,000 Franklin gulls in raft in middle of bay w of dam. In one group of 65 cormorants which were actively feeding and diving, eleven pelicans swam by without joining in the activity. Usually pelican will join in and profit by the escaping fish. In a group of 40 cormorants + 12 pelican, the pelicans left for resting sandbar on promontory followed by the cormorants. Another similar size group the cormorants left first and followed by the pelicans. A line of 23 pelicans fish the w shore and once ~~was~~ <sup>every</sup> three minutes would thrust their bills forward and swim for 6 seconds with bill and head completely in water then if some captured fish would lift bill out of water to 45° angle and swallow fish. Generally lines of fishing cormorant do not have cormorants associated with them even when the line of pelicans pass by a raft of resting cormorants. At 10:15 A.M. 86 pelicans left from the 700 resting pelicans, circled S for 15 minutes about 300' above water and then returned to original resting group on end of promontory. 6 turkey vultures circled about 1000' above main lake.

402 Yorkshire Dr., Lawrence, Kansas

Oct 6, 1978

White-throated sparrow at Sailey's feeder across the street.

Clinton Reservoir, Douglas Co., Kansas

Oct 7, 1978

Canoe trip up Wakarusa River from Clinton bridge site N of Clinton. Left 9:47 A.M. Sky clear, Temp 32°F early this A.M. at home. Heavy frost on windshield. Temp on river 52°F water 62°F (6" deep), no wind. At put-in 2 redheaded woodpeckers and bluejay. Red-bellied woodpecker. 10:04 mouth Deer Creek. River water confined to channel and at lake level. 5 wood ducks. Red-bellied woodpecker. 10:10 stream <sup>turns</sup> to right. 10:12. Approx. 700 grackles in trees along 200' of river. Others calling in trees beyond banks of river. 13 wood ducks left water. 2 bluejays. Not as much fish activity (surface) as warmer periods of 2 or 3 weeks ago. Steam on water. 10:17 2 bluejays and red-headed woodpeckers. 10:19 2 bluejay, 2 red-headed woodpeckers. 10:20 old camp site at bend where river dropped in riffles. Wood duck. Steam along side of river (E side). Now w from southerly direction. Most of river at this time of day is in shade. Red-bellied woodpecker

10:25 Coyote on N bank. Came down a trail to within 2 feet of water before seeing canoe which then was only 30' away. Turned around and retraced trail and stood at top of bank, while canoe (floated) by at approx. 50'. I saw the coyote before it saw me and had moved 10' down trail before it saw me. Coyotes are not as conscious of danger from water as from land and if this encounter had been on land the contact would never have been this close. Slight breeze in river channel now. 10:27 drainage from left. 10:34 Two photos of river of colored leaves <sup>in greens & yellows</sup>. Also showing extent of inundation of the river channel.

781007-1 Wakarusa River and fall colors

781007-2 " " " " " "

yellow-shafted flicker. 2 more on a log on water. Red-bellied woodpecker. 10:40 2 blue jays. 10:44 sharp bend NE near <sup>number</sup> 16 (see) on map, now going S., red-headed woodpecker and redtail hawk. It called as it circled overhead. Entire river bordered by original riparian vegetation and there are no plans to cut it out for reservoir. I am surprised that there is not more beaver and muskrat activity along river, some sign of tracks in mud on banks. Color change are result of effect of inundation of trees. 10:55 log jam. 150 redwings alighted in tops of trees. 11:00 2 photos of trees in river.

781007-3 Wakarusa River and inundated trees showing some color change <sup>(green)</sup>

781007-4 ibid. maple on left, willow on right and ash color in the distance.

There are definitely more blackish-brown water beetles here than lower down in river. Below at beginning of trip only one or two would be seen but here they are common. 11:04 now N axis of N meander and now SW. Robin, 2 cardinals, red-bellied woodpecker. 11:11 Belvoir Bridge site. drainage immediately S of bridge. 11:16 2 red-bellied woodpeckers. 11:22 2 crows to S. Some spiders with red dots on back are being pulled across water by webs. Downy woodpecker, robin, yellow-shafted flicker. 11:27 axis of bend trending SW. Marsh hawk. Tree in water cleaned by beaver, of bark. Signs of bark being pulled and frayed rather than being pulled off. 200 water beetles in one group, three other groups of approx. 300 each. The beetles are inactive in the water until the canoe approaches and then they all disperse. 6 wood ducks. The above beetles were just the prelude of a larger but localized

aggregate of beetles. Just beyond the above 4 groups are 15 groups (300-500 beetles each) in 200' of river length. Butterflies uncommon but occasionally a Colorado Angleming type kind observed. 11:33 2 bluejays. 11:38 now crossing red line on topo map, just before next meander turn to W. The water beetles are still in river and about same intensity at least to red line and will check beyond. No fish feeding on these beetles. 11:43 apex of bend, now straight S. Cottonwood felled by beaver into water (<sup>leaves still green</sup> 18" diameter). 5 trees in same area have been cut by beavers. At this bend extensive log jam (200' long, bank to bank). 12:55 now thru log jam. Log jam is at mouth of a creek, that comes in from the N end of the N-S stretch, just before curve. In vicinity of the 870' marker on map. Bluejay. morning lights are best for photographing river. 1:00 P.M. 2 bluejays. There is more water beetles below the log jam than above it. 1:08 great blue heron, 6 wood ducks. Turtle with head out of water. After crossing log jam and beyond must revise my above statement and say there are ~~was~~ many beetles above the log jam as below. There must be millions of these beetles. Temp. 78°F in sun. Downy woodpecker, yellow-shafted flicker giving the summer call. 1:16 2 flickers and one red-bellied woodpecker flew down river in one group. Blue heron first seen has been dislodged 5 times as I proceeded up river. (up to 1:30). Red-bellied woodpecker. 84°F in sun. 1:32 on westernmost pair of adjoining hairpins, now going E. 2 bluejays. considerable beaver activity along bank. 1 bank house. 1:45 now E end of opposing hairpin meanders. 1:50 ♀ raccoon and 3 <sup>3/5 size adult</sup> young working on mud bank. This is just beyond apex of E hairpin curve (meander) <sup>12' away</sup>. 200' beyond beaver cut 3 black willow trees, one clear across river. River becoming coated with a green skum now for first time occupying entire river from bank to bank, prior on one side only. No beetles in this area, bluejay. 2:00 3 redheaded woodpecker on high dead tree. 2 bluejays, 2 more redheaded woodpeckers, 2 yellow-shafted flickers, 2:12 great blue heron in lateral drainage. 2:13 new Corps of Engineer road over river. Bullfrog captured and ate smaller frogs of another species. Sun under cloud. 3 crows 2:17 redtail hawk. 3 bluejays. Some white flowered Polygonium on bank here that is 8 feet high (Polygonium). Not much along river. The above 4 feet from water and 2 feet high on bank. 2:25 great horned owl left trees and flew up river. Turkey vulture overhead.

at this time 2:25 P.M. will turn around and return to car via some route. One of the dominant plants is a white daisy which grows from a mass of leaves. There seems to be more color in trees nearer Clinton part of river, maybe from influence of inundation or high water level. 2:55 back to bridge. Will not keep complete list but just noteworthy information. Photo at W end of second hairpin meander just before curve no 781007-7 and no. 781007-8 at bend proper of colored leaves thru a self-haunted tree. Sarming needle still along river and <sup>and 78.10079a</sup> Polygonum (white flowered) all along the route. Photo 781007-9 willow overhanging river. Have not seen one *Sciurus* today. 3:55 log jam (second). Photo 781007-10 of cottonwood tree, <sup>yellow</sup> seeds are from ash. 2 great blue heron together. Most wood ducks leave from logs or water but some from land. They leave up thru trees and beyond immediate confines of water. Photo 781007-11 of base of trees with waves in front on water. Passing building S side river just first bend beyond put-in. Arrive put-in 5:30 P.M. On this trip there were no other ducks on the river or in the air except the wood ducks. On way home saw 2 shrikes. The last photo, in recollection was near put-in of colored trees no. 781007-12

Lawrence, Douglas Co., Kansas  
Oct. 13, 1978

Trip to Metcalf and 95th St., Kansas City via highway 10, then E to Lenora. There is a dramatic change in color in trees in De Sota from greens and yellows and a few red in Lawrence to brilliant yellows, golds and reds beyond in fact the area E of De Sota and beyond is near optimum color. Noted redtail enroute. Temp. tonight is to be below freezing.

S end Clinton Dam, Douglas Co., Kansas  
Oct. 14, 1978

From road at S end dam can see 56 pelicans, 15 of them generally distributed in lake. The main group is resting just inside of vegetation island W of the open lake. There are also 142 cormorants in some general area. Of the 1944 ducks, <sup>and other aquatic birds and</sup> they are separable into: 700 gadwalls, 500 baldpates, 300 blue-wing teals, 200 mallards, 80 coot, 3 redheads, 2 scaup, 20 ring-billed gulls, 15 pintails 10 Canada geese one group 105 in another 5 pied-billed grebes, 4 great blue herons. The geese while far away are alert and with heads up are swimming in a very compact group. Three deer walked out to promontory and back and W side lake E of marina area. ♂ and 2 young 3/5 size adult.

Forests are 50-50 green and yellow. Bright yellowish & red colors, on water level. Marsh hawk and sparrow hawk at S end dam.

Clinton, Lone Star Lake, Douglas Co., Kansas  
Oct. 15, 1978

From S end Clinton Dam observed 37 pelican all in first row of emergent vegetation W side lake. Usual number cormorant and ducks (see Oct. 14 1978). 40 Franklin gulls, redtail, 30 ring-billed gulls. Continued to Lone Star Lake and took photo 781015-1 from camping area to NW bay. Continued to Clinton, thence E to Bloomington marina. From just W of marina took the following photographs: (see map below).

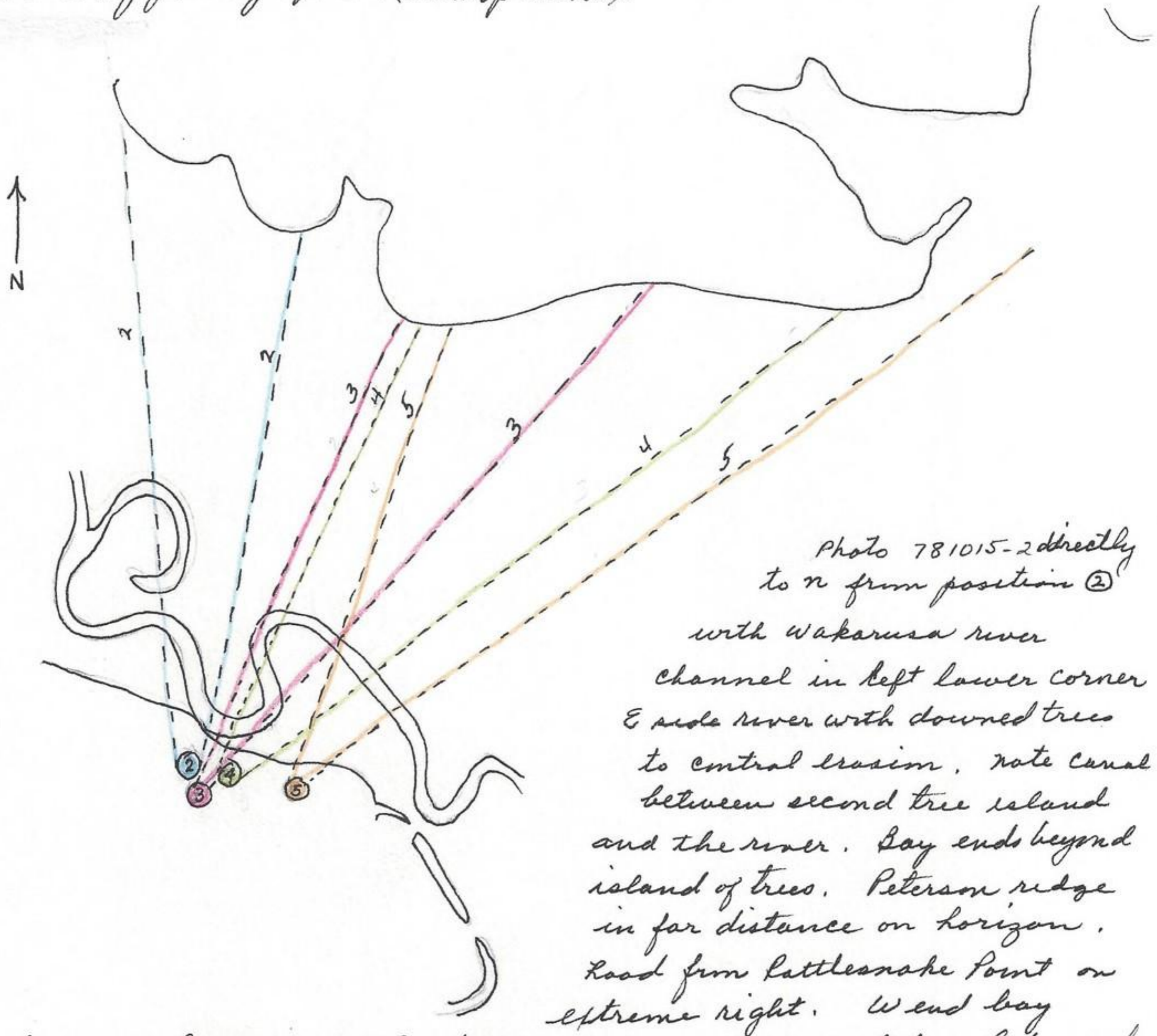


Photo 781015-2 directly to N from position ② with Wakarusa river channel in left lower corner E side river with downed trees to central basin. Note canal between second tree island and the river. Bay ends beyond island of trees. Peterson ridge in far distance on horizon. Road from Lattlesnake Point on extreme right. W end bay

bordered by old weeds landward and aquatic vegetation lakeward. A raccoon had just walked across first vegetation reef beyond river to N, and gained wall of down timber. Also Wilson snipe in same area. all riparian forests have been cut between here & dam.

781015-3 Photo from position ③ on map from higher on hill than other photos and bordered by hackberry trees. Islands of *Polygonum coccineum* in lake.

781015-4 Photo from position ④ on map. Bend that leaves heelside and trends N in right hand of picture. Wakarusa here flooded over its banks by rising lake level. Note that reds and brilliant yellows are at water level on ridge across the lake. Quarry site on ridge.

781015-5 from position ⑤ on map. Wakarusa Confined to middle riparian trees in foreground. Between here & river flooded fields. Among emergent aquatic vegetation islands are 34 Cormorants, some in vegetation but most in open water bordering the islands. 2 Common egret on N shore

also took 3 photos of Annette: 781015-6 with binoculars; 781015-7 Annette; 781015-8 Annette and binoculars, all at the Bloomington marina. Continued around Clinton Lake, thru Steel, thence home.

Lawrence, Douglas Co., Kansas  
Oct. 19, 1978

Took series of photos (35 mm Kodochrome) of trees in autumn color. in various parts of the city between 11:30 and 12:00 noon. There was direct sunlight and colors under these conditions seem not to be as colorful as on a hazy day. mainly reds of maples.

781019-1 maple

781019-7 maple

781019-2 maple

781019-8 maple. James Campbell Res.

781019-3 maple left.

781019-9 ibid " " "

781019-4 Cottonwood left, oak right.

781019-10 ibid

781019-5 maple, S Lawrence

Oct 20, 1978. There has been a

781019-6 Close-up maple leaves

dramatic change of greens to yellows. since yesterday!

Perry Reservoir, Jefferson Co., Kansas  
Oct. 21, 1978

Trip to Perry Reservoir, mainly to photograph autumn colors. First photo 781021-1 on inland road to Leempton near old cabin NE of Leempton. So far have seen 2 sharp-shinned hawks, grackles, Cowbirds, redwing, 2 eastern bluebirds, several bluejays, flicker. and a red-headed woodpecker, Crow. From above photo to Leempton road, shrike, meadowlark, crow. At Leempton bridge cottonwoods changing yellow color mainly at the tops. (15% of them) Second photo 781021-2 of red maple in City of Perry,



mileage <sup>R. billed</sup> west, (152.7) dam of Perry Reservoir. along base of dam are 4 gulls and 8 coat, 4 more ring-billed gulls, common loon, 15 ring-billed gulls; 50 coat. Continued to outlet in middle of dam, then retracted to W, thence Thompsonville, thence to S. side outlet and then S on second road to a point <sup>10 mi.</sup> E of Delaware River where I photographed a row of black locust in yellow leaves: redtail.

781021-3 black locust in yellow leaves.

781021-4 " " " " "

781021-5 " " " " "

781021-6 " " " " " bailed cut grass in foreground

at top of hill back towards <sup>over</sup> Look photo 781021-7 of locust and red sumac on N side road. Redtail, 8 coat on W side lake and 30 gulls beyond just before first inlet. Gulls working shorelines. Photo 781021-8 of osage orange on N side road just W of State Park (S end). Continued to State Park headquarters, thence down to picnic areas and boat ramp on Rock Creek. Photo 781021-9 of trees in back-light at the Rock Creek ramp area, W side bay. The next 2 photos in same area are 781021-10 and 781021-11 of locust and cottonwood tree on slope. Photos 781021-12 and 781021-13 of locust in yellow leaves in Rock Creek State Park. 150 Franklin gulls and 70 ring-billed gulls just off shore at trailer camping area. Photos 781021-14 and 781021-15 near (just W of Ozarkie turnoff, showing lake to S. Dog bone in foreground, Redtail. Photo 781021-16 of hillside E of Little Slough bridge. Photo 781021-17 of green fields just before turn in main road N of Walter's property. 781021-17 Photo to E from N end Walter's property toward <sup>upper end</sup> Big Slough arm of reservoir. Two photos <sup>S end</sup> of bay E of Big Slough Causeway, 781021-18 and 781021-19. Continued to marina but first made circuit of roads to N of tower area. These photos 781021-20 and 781021-21 are of osage orange Redtail. Left Perry Reservoir 2:30 P.M. have travelled clockwise around lake from dam to Ozarkie and back.

Lawrence, Douglas Co., Kansas

Oct 22, 1978

Photo 781022-1 of ash tree in yellow at home of Stackhammer at Princeton and Yorkshire. Photo 781022-2 near Dr. James Campbell's home of a maple. Photo 781022-3 brilliant red tree in front of Dr. James Campbell's home near <sup>(W)</sup> Univ. Kansas Campus. at 402 Yorkshire Dr, a thornless locust turned yellow in last 3 days (90%)

Univ. Kansas Campus, Lawrence, Douglas Co., Kansas

Oct. 23, 1978

From the museum of natural history viewing to the N beyond stadium the colors of trees in the residential area are: 25% green, 60% yellows and golden, 15% reds and maroons. no bare trees. There has been a dramatic change of yellow since Friday. Some yellow trees which were in full optimum color on Friday are today nearly bare of leaves. Photo 781023-1 of stadium on KU campus from SW to NE. The following from grove W of Spencer Art museum.

781023-2 yellow tree.

781023-3 maple & ash

781023-4 yellow of black walnut top, yellow bottom sp.?, red left sp.?

781023-5 tulip tree

781023-6 maple.

781023-7 rain tree sp.?, yellow.

781023-8 red bud? yellow

781023-9 birch, yellow

781023-10 locust, conifer

781023-11 yellow tree and Campanile

781023-12 Black walnut grove W of Spencer Art museum.

781023-13 ibid

781023-14 redbud

781023-15 black walnut, yellow

781023-16 " " "

781023-17 " " museum natural history.

781023-18 " " " " "

781023-19 " " " " "

781023-20 " " " " "

781023-21 " " " " "

781023-22 black walnut, yellow.

781023-23 " " " & green juniper

781023-24 black walnut, yellow, Union thru trees.

781023-25 To E out over Lawrence residential area from Mus. Nat. Hist

781023-26 NW toward stadium from Mus. Nat. History

781023-27 End Mississippi on Campus from Top Mus. Nat. Hist

781023-28 Crossroad Mississippi & Jayhawk backward, from top Mus. Nat. Hist

781023-29 In from Green Hall (statues) from top Mus. Nat. Hist

781023-30 Black walnut, grove W Mus. Nat. Hist.

781023-31 ibid

781023-32 Campanile and yellow tree

781023-33 Reds & yellows along Mississippi st.

781023-34 birch, yellow

781023-35 maple, red

781023-36 red maple

781023-37 black walnut.

781023-38 maple, red and black locust yellow.

781023-39 locust? and other yellow trees,

Lawrence, Douglas Co., Kansas

Oct 23, 1978

At 6:00 P.M. to sundown 6:30 at Iowa Street and 25<sup>th</sup> S. Blackbirds, <sup>cowbirds</sup> which I took to be grackles mainly but including redwings, starling and maybe robins arrived from NW in large groups, each group approx 1/10 mi wide and approx. 20,000 birds per group. 30 groups passed by or 600,000 birds. This group was not like the long continuous lines of those of previous years.

Naismith drainage between 24 and 25 S, Lawrence, Kansas

Oct 24, 1978

Blackbirds, mainly grackles but also redwings, cowbirds, starling and some robins arrived at roosting area in drainage from 5:40 P.M. to 6:40 P.M. (about 10 min. after sundown). Arrived from W and SW.

Univ. Kansas Campus, Lawrence, Kansas

Oct. 24, 1978

The <sup>full length of</sup> street (E-W) in front (N) of Robinson Gym supports elm trees on N side and sycamore on S side. The elm have been yellow for the last 3 days, the sycamores are green. There is more color in city trees than yesterday. Good synchronizing of all colors this year.

Mus. Nat. Hist., Univ. Kansas, Lawrence Kansas

Oct 27, 1978

Graduate student in ornithology reports that at the fish farms in N Lawrence, there have been only a few shorebirds and no kingfishers. Two years ago (1976) there were 10 common egret at the fish ponds.

Kaw-wakarusa rivers, NE Eudora, Douglas Co., Kansas

Oct. 28, 1978

Trip down stream, S side, Wakarusa to mouth and return. Large

cottonwood on second bench along S side river, opposite the new  
breakthru of channel from the Kaw River. At the cut, the water  
from the Kaw River side is 2 feet higher than on the Wakarusa side.  
One beaver area with 12 barbed trees and nine felled trees. Tracks  
along bank, at mouth wakarusa no shorebirds or ducks except  
1 wounded blue-wing teal and a wounded killdeer. Redtail,  
Grasshoppers active. Temp. 70°F in shade, no clouds, slight breeze.  
2 daddy long legs out 20' on sandbar, travelling together 2 inches  
apart. In one area of Kaw River where receding water left a dry  
cracked mud area, the tail of a muskrat dragging along over the  
originally wet mud dictated the position of a <sup>long</sup> mud crack. Also a  
middle toe imprint (100 mm long) was outlined by fractured mud line.  
Deer tracks to water and butterflies active.

Museum Natural History, Univ of Kansas, Lawrence, Kansas  
Oct. 30, 1978

as viewed to N of museum from top of floor to trees in residential  
area beyond stadium to N are: Reds, mainly maroons are dominant,  
yellow to golden, greens faded and many trees without leaves.

Univ. Kansas, Lawrence, Kansas  
Nov. 1, 1978

Leaves lining N side of street N of Robinson Gym are gone and  
sycamores are green with some yellow colors. (see Oct. 24, 1978 for  
comparison).

Univ. Kansas, Lawrence, Kansas  
Nov. 4, 1978

Mr. J. D. Stewart, a graduate student in paleontology reports a flock of  
over 100 sandhill cranes circling & trending S in the NW corner of Russell  
Co., Kansas. Other sandhill cranes were observed in Rooks and Ellis  
counties. Snow geese also flying S in same areas as sandhills.  
Prairie chickens increasing in above areas this year.

Nov. 4, 1978

Why do Grey Squirrels allow one to pass by them at 6 feet on campus  
whereas in native forests they one can seldom get closer than 100'-200'  
before they leave. In pre-Columbian times did they act like those  
on campus or like those in native forests.

Clinton Reservoir, Douglas Co., Kansas  
Nov. 25, 1978

(over)

Six american roughlegs hovered above dam (S side which is grassy side) at 4:00 P.M. Lake maintaining constant level.

Nov. 26, 1978

Mileage from 402 yorkshire Dr. in Lawrence to S end of dam via highway 40 is 4.4 miles. At 12:00 from S end dam noted 1 common loon, 1 ring-billed gull, crow & no other birds.

Dec. 2, 1978

An immature bald eagle was observed by a graduate student at Clinton Reservoir.

Dec. 10, 1978

Christopher Nye reported Clinton Reservoir completely frozen over. Some ducks on N side along shore, E<sub>1</sub> marina.

Museum Natural History, Univ. Kansas, Lawrence, Kansas

Dec. 14, 1978

Approx. 40 starling fed on seeds of hackberry on E side museum. Occasionally a robin fed on <sup>seeds of</sup> this tree. A rock pigeon alighted in the tree and fed on seeds. It was awkward on the branches as it maneuvered for seeds.

402 Yorkshire Dr., Lawrence, Kansas

Dec. 25, 1978

Annette C, Ron Muckelberry, Mary, James R, Annette & I had Christmas together. Mary left 28<sup>th</sup>, Chris after new years. Photos of the day are as follows:

- 781225-1 Hallway chandelier
- 781225-2 Christmas tree and marip dog Frank,
- 781225-3 Christmas tree and presents,
- 781225-4 Poinsettia plant,
- 781225-5 Annette C.
- 781225-6 Ron Muckelberry
- 781225-7 Mary
- 781225-8 James R.
- 781225-9 Ron asleep
- 781225-10 idid.

To get a record of Annette C' cough to establish a baseline for future comparisons.

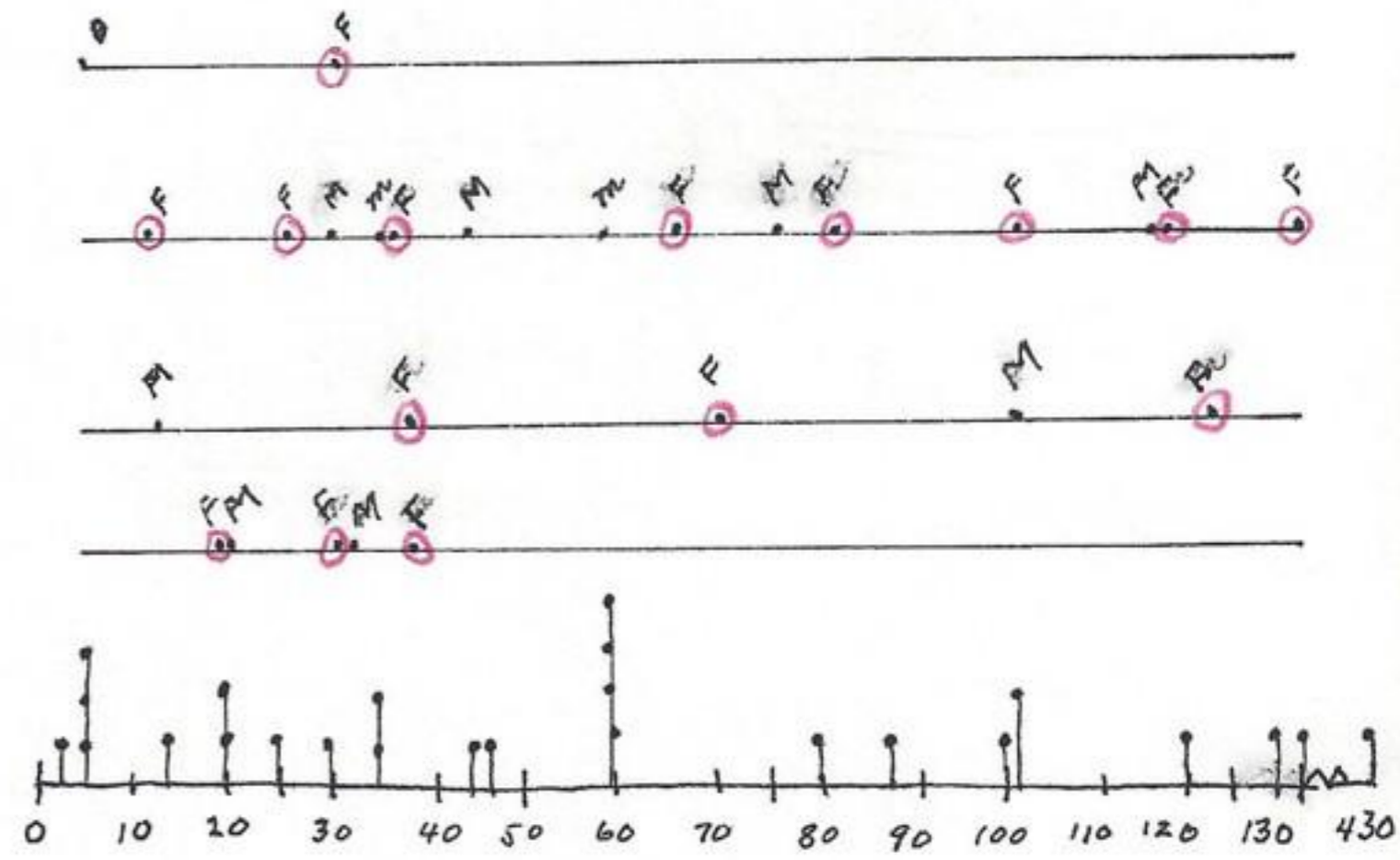
(see results next page).

ing

Recorded activity at open<sub>1</sub> of presents and from tapes recorded periodicity of Chris' coughs: F = forceful, m = minor throat adjustment.

8:40:30"	F	110.	8:57:50	m	60
8:42:50	F	430	8:57:55	F	5
8:50:30	F	60	8:58:55	F	60
8:51:30	F	20.	8:59:30	m	35
8:51:50	m	20	9:01:30	F	120
8:52:10	m	20	9:03:45	F	135
8:52:15	F	05.	9:05:55	m	130
8:52:50	m	35	9:07:20	F	87
8:53:50	m	60	9:09:01	F	101
8:54:20	F	30	9:09:04	m	3
8:55:05	m	45	9:09:50	F	46
8:55:30	F	25	9:09:55	m	5
8:56:50	F	80.	9:10:10	F	15

In 29 min and 40 sec. 26 coughs (16 forceful and 10 minor throat adjustments) or an average of 68.9 seconds per cough.  $(68.9(430-3))$ .



Lawrence, Douglas Co., Kansas

Dec. 28, 1978

Annette planned a retirement party for my 31 years of teaching and research at the University of Kansas. Relatives and friends present were: Don and Mary Bee Jensen; Rev. Robert D Bee and family Deema, Pam, Jana, Alyssa, James R. Bee, <sup>Lebbie Batten</sup> Mary Bee, Annette C Bee, Ron Michelberry, Ray and Frieda Culbertson, <sup>(Culbertson)</sup> Cub Culbertson, William + Susan Pitcher, Dennis, Judy, Lisa, Amy Bailey, Jerry Culbertson.

Max + Phyllis Bee, Edith and Arnold Davis, Alove and Romona Evans, Tom and Evans, sent regrets, also David + Marianna Bee