

W 24 - 79.1 12:25

80.4 tree sparrow 100 & cardinal etc.

80.8 good Audubon on point.

middle 21 - 81.8 - 12:30 excellent Audubon on hill around school
to n of here. (now to S to Richland.) 83.1 Richland 83.6 west of
Richland, now return. Richland 84.1 - 12:40 (now east.)

84.9 2 crows. 3 blue jays for first time today.

Cross roads 87.2 on Elk Creek - thence N to Bridge 87.9 & return.

Cross road on Elk Creek 88.5 (now to east) 12:56.

W 31 - 89.7

E 31. 90.7 (to S) 91.2 Crow

E 6 91.8 one flock small birds 92.4 one of tree sparrow 150 - 92.7

W. 8 92.8 (to east) 92.9 across river at cross road (now to east) 1:15

94.0 80 tree sparrows & others associated with farm

94.8 1 red-tail, 3 crows

E 9 - 95.0 - 1.25 P.M. (to N) 95.8 100 small sparrow, cardinal, Harris at
farm.

93.5 - 96.0 - 1.28 (to N) turn west a block beyond Rock Creek Bridge

at 99.8 turned N. (this is at middle 28

middle 21 - 00.9 ^(base of hill) - 1:50 - good areas to east & west along edge of valley
red tail screaming above. at 01.4 in valley floor 1 marsh hawk

Snows covering 80% ground and elsewhere where wind blown. Drifts across rd.

01.6 marsh hawk flying along base of ridge to east.

middle 16 - 01.9 - 2:00 (to east)

02.4 N. Bridge 03.5 (to E and then S to Clinton)

Clinton. 05.2 - 2.13 P.M. (to S)

05.6 red tail. 06.5 bridge across rock Creek. back to bridge from
side road 07.3 (to N) too much snow on hill

NE 23 - 09.7 (to S) 12:30 jag to east then S. Bridge across Rock Creek

at 10.9. On old road at 11.5 good area to W across small Couey
at mouth. Up old road to 11.8 then return to highway east ofClinton (same road returned as initial route.), jag to E 3/4 mile. flock 80 tree ^{sp.}NE 24 at highway 14.4 - 2:53 (to N) 150 misc small birds in flock 15.6 ^{mainly tree sp.}

Bridge NNE 18 across Wakarusa River (end census). 15.8 mileage 3:00 P.M.

The hawk census did not show increase hawk population with high rodent population. The soil banks may permit increase in rodent population and an increase in hawks may follow. The most promising problem will be to investigate the native grasses and sedges associated with the natural springs and seepages at contact between valley and valley slopes. These areas are the least affected natural areas in the eastern part of Kansas. These populations will be displaced when water inundates the Wakarusa valley. Other animal forms and vegetation should be checked for relict populations.