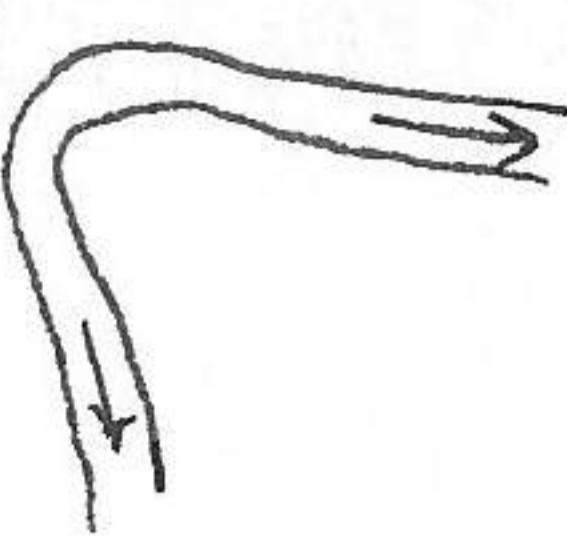


19

wind from NW and from mud creek up river, 680410-19
parallel to channel. To east of mud creek the wind was blowing
parallel to channel showing how the river course dictates to the
direction of the wind. 11:25 New beaver cutting



including 5 trees 5" in diameter. A fox squirrel worked along bank until it encountered a tree felled by beaver, at which time the squirrel ascended the trunk to the first beaver cut. The squirrel registered the odor of this cut and then continued up the bank.

The usual composition of

birds in riparian Community but not as common as area east of Lawrence. Crow flew over river. 11:31 noted a fox squirrel 2 feet from edge of water, smelling damp mud. 11:35 beaver house on bank. 11:36 end island (growth part). The 3 pairs of mallards were resting on sand bar. 11:42 recent beaver sign of 7 trees (3"-4" dia) felled. 11:50 stopped on sandbar on N side. 13 western sandpipers fed in ripples

where water was shallow and moving.

In this area collected a series of shells. *Leptodea fragilis* 680410-1 to 680410-20; *Leptodea lacustris* 680410-21^{to}30 and *Lasmigona complanata* 680410-31. These shells constituted the entire population of this sandy-gravel bar of 50' x 150'. Resumed trip 12:35. 12:54 beaver house on bank. 12:57 2 mourning doves in willows at edge of river.

1:04 middle major bend F 1:08 drainage on left side river. Turkey vulture. Cicindeelids unusually numerous on sands and in groups of 5-10. Many minnows in shallow water at edge of river. Bull frog tadpoles in water. No frog on bank 1:30 2 ♂ tadpoles, 1 ♀ tadpole, ♂ & ♀ bluewing in one group on edge of sandbar. Air 74°F, water 62°F. 1:38 approx. 50 ears tied together and aligned on approx 1/10 mile of bank. N side. It is my belief that this type of barrier contributed to accentuated erosion rather than prevents erosion. Riparian birds considerably fewer than this A.M and may be a factor of time of day. Day now quiet & practically windless. Arrived Eudora bridge 2:10 P.M. Daughter Annette arrived 3:00 and we continued concurring to mouth of Wakarusa.

at Eudora bridge (300' upstream)
(sand shiner)
Collected group of minnows NOTROPIS STRAMINEUS 680410-32 from shallow water at edge of river. Capture by damming off entrance to shallow water then forcing minnows into channel leading to entrance and then damming upper end of channel. In this short segment of 3 feet of channel scoured out the water onto the

