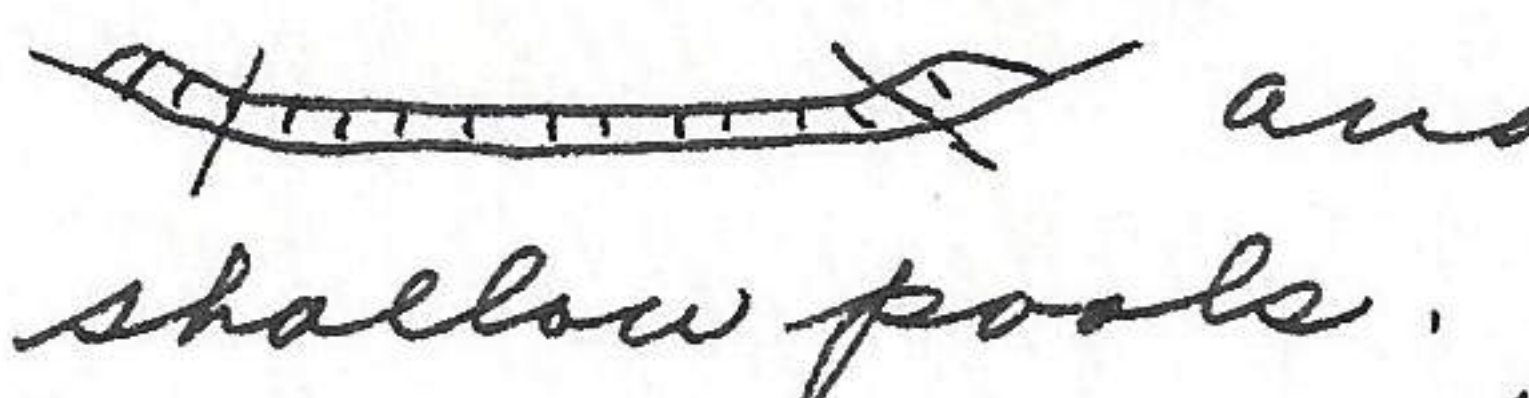



the thickness (from heavy to light) and the amount of corrugations or irregularities of the external surface for holdfast according to whether the floor of the river is sandy and without fast moving water or rock where water flows more rapidly. These shells were found as stated above. Shells most numerous on sub-surface features such as transverse ridges between two ponds.

January 24, 1954

James R and I walked on ice in Wakarusa (see map for Jan. 18). Ice continuous and water flowing through beaver dams so there must be water running in creek beneath the ice. Several blocks of ice had dropped beneath the 2 feet

 and new ice was collecting on top of ice in shallow pools. Some ice formed mild into ridges

 Grass had been growing in bottom of creek during the summer. The only open water was at junction of Cole Creek. Many birds were using the open water channel below the main open pool, including 18 Bombicilla cedrorum, Spinus pinus, and Junco hyemalis. One Strix varia was in tree along creek and within one block of a farm house. Beaver do not seem to be active in exceptionally cold periods but when above freezing (above 32°F) are active. One Phamnopis about 1 foot long on top of ice and partly frozen in ice with back upright as if it had recently been alive. Coilesthus ☺.

Lake View, NW Lawrence, Douglas Co., Kansas

Feb 13, 1954

Edward Campbell, Joan and I checked number and kinds of fish poisoned with Ratino (sp?) by the State Fish and Game 2 days previously. The following fish were observed in the remnant pond of about 180 x 40 ft and at least 8 feet deep at the west end of the lake (the last of the water in Lake View Lake) nearly all fish were dead & farmers had been gathering them since February 11 so no accurate estimate of the total volume could be estimated. At the time we inspected the area there was about 1 1/2 tons of fish around the lobe and consisting of the following numbers.

short-nosed gars, 23.	leather carp, 2.
long-nosed gars, 5.	mirror carp, 14.
	carp, 80.