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The Nebraska Stream Surveys--The Photographs: Nebraska Streams Photographed During Raymond Johnson's Statewide Stream Fishery Survey (1939-41) and How They Look Now, 78 Years Later.

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The Nebraska Stream Surveys

The Photographs

*Nebraska streams photographed during
Raymond Johnson's Statewide Stream Fishery Survey (1939-41)
and how they look now, 78 years later.*

Steven C. Schainost

**The Nebraska Stream Surveys
The Photographs**

Steven C. Schainost



Raymond Johnson and Russell Wallace
1939

Nebraska Game and Parks Commission
2200 North 33rd
Lincoln NE 68503



2017

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The Nebraska Stream Surveys – the Photographs

Introduction:

Raymond E. Johnson was a Nebraska boy, born in Peru in 1914. He got a bachelor's degree from Doane College and an M.A. from the University of Nebraska before landing at the University of Michigan to work on his PhD. Under the direction of Carl L. Hubbs, he conducted the first statewide stream fishery survey for Nebraska between 1939 and 1941. Assisted by J. Russell Wallace (1939) and Paul Romberg (1940), graduate students at the University of Nebraska, he visited and sampled over 200 sites over the state including streams, lakes and ponds as well as the Missouri River. [A few additional field trips in late 1941 were aided by Bette Bindloss Johnson.] While he was a student at the University of Michigan, all of the field work in 1939 and much of the work in 1940 was supported by the Conservation and Survey Division of the University of Nebraska under the direction of Dr. G.E. Condra.

64 years later (2003 to 2005), the survey was repeated by students of Dr. Edward J. Peters of the University of Nebraska-Lincoln. Focusing on the interior streams only, this later survey revisited 188 of the original sites. The results of those two surveys were compared in a publication completed in 2017 entitled "The Nebraska Stream Fishery Surveys".

During and after his 1939-41 surveys, Raymond Johnson compiled his notes and results on a series of museum collection record data sheets, one for each site. He also took a large number of photographs during the two summer field seasons. The photos were an eclectic collection of subjects ranging from views of streams to campsites to odd buildings to wildlife to people he met along the way. Dr. Johnson passed on in 2004. Prior to this, he had loaned his collection records and photographs to Beth Goldowitz, who, at that time, was working for the Whooping Crane Trust in Alda, Nebraska. Several years later, Beth gave the photographs to the Nebraska Game and Parks Commission where they now are housed in the agency's photo library.

There were a total of 259 photographs which were taken between 7 June and 11 August 1939 (158) and 4 June and 12 August 1940 (101). A description was typed on the back of each photograph and each was numbered. Of particular interest to Nebraska fisheries biologists are the photos of streams as they appeared in 1939 and 1940. Of the 259 photographs, 56 were views of streams, a portion of which were snapshots of his stream sample sites. These photographs are reproduced here along with attempts to show recent photos of the same sites. In some cases, this was easy as the location was well-recorded or landmarks could be identified. In others, it was almost impossible to be sure of the original location. In these, the description only noted the stream and county, there were no landmarks and, in some cases, the streams had markedly changed over the years. The following pages show the original 1939-1940 photograph on one page and, on the facing page, an attempt to match it with a recent photo.

Figure 1 is a map that illustrates where Dr. Johnson's original photos were taken. The number inside each symbol refers to the number that was recorded on the back of each photo.

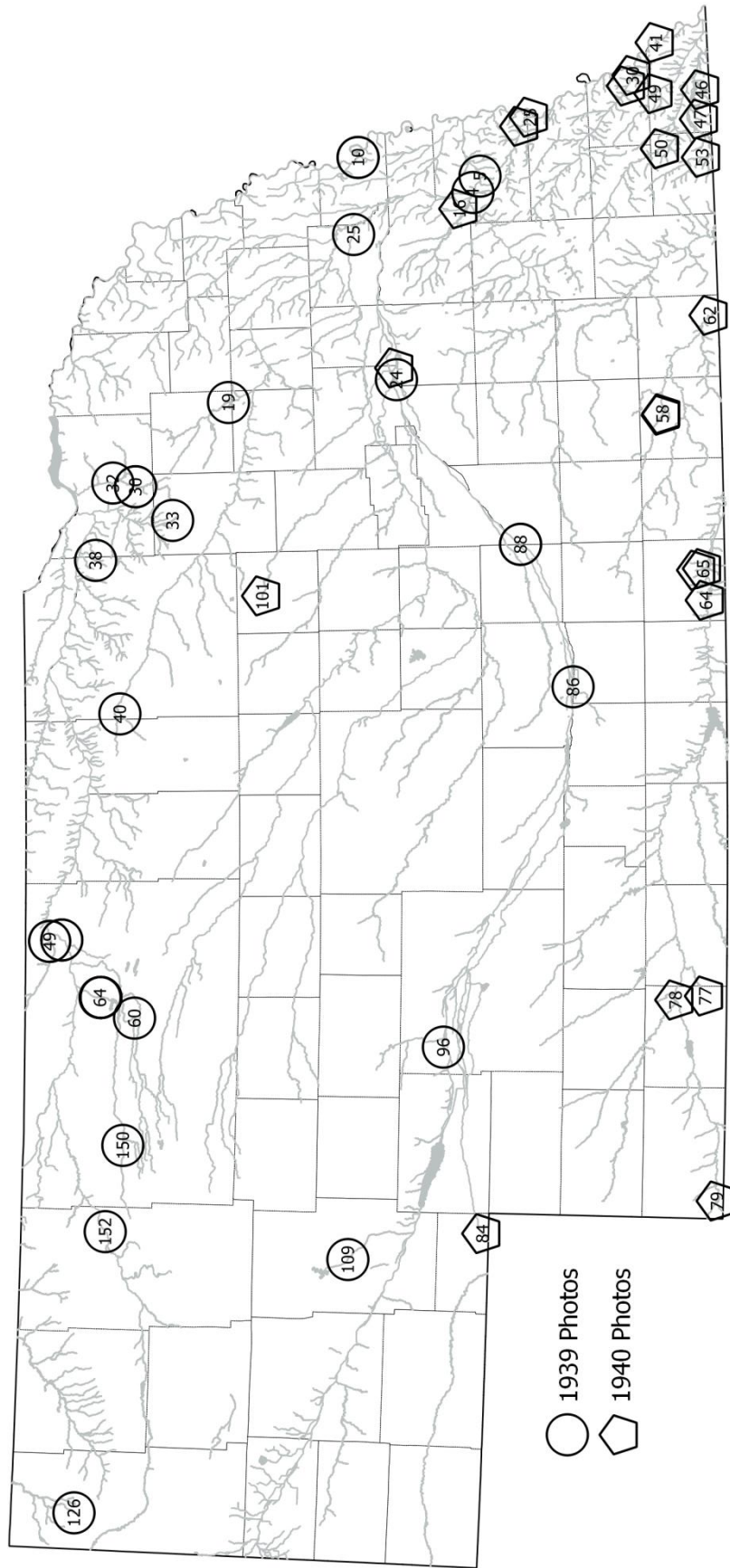


Figure 1. Stream photos taken by Raymond Johnson, 1939-1940

The Original Photographs

At right is an image of one of Dr. Johnson's museum collection records. The information on these records along with the description on the photos (as well as the photo itself) was used in an attempt to locate each site where a photo was taken.

The following information accompanies each original photo in the document below:

Photo number: Raymond Johnson typed a caption on the back of each along with a photo number. The "photo number" in this document is the catalog number in the photo library of the Nebraska Game and Parks. This catalog number is the year taken along with Johnson's photo number recorded on the back.

Stream: The current name of the stream in the photo.

Description on rear of photograph: This is what Dr. Johnson wrote on the back of each photo.

Collection Record: These are the notes typed on the record card that describes the stream, etc. For instance, "Artificial ditch, filled partially with tumbleweeds. . . ." [A large number of streams that were photographed were not sample sites. If so, this is noted.]

Locality: This is the Station Number from the upper right corner of the card along with the sites locality information. "Nebr., Platte Valley Drainage Ditch," [If the stream photographed was not a sample site, this is noted.]

Comments: These are general comments about the photo, the stream, etc.

Note that the collection record includes the date and time when the sample was collected. This information along with the photo numbering was very useful in figuring out where certain photos were taken.

Sta. No.	1	Orig. No.	
Locality	Nebr., Platte Valley Drainage Ditch, 2 mi. SE Linoma Beach, Sarpy County.		
Water:	Clear, slightly brownish		
Vegetation:	Algal streamers, no emergents.		
Bottom:	Very soft, gummy, black mud	Temp.	72°F
Shore:	High, steep, weedy banks	Current:	Sluggish
Distance from shore:	Ditch 30 feet wide	Tide:	
Depth of capture:	To 3 feet	Depth of water:	3 feet
Method of capture:	25-foot seine		
Collected by:	R.E. Johnson, R. Wallace	Date:	VI:7:39
Orig. preserv.	5% formalin	Time:	6 P.M.
Artificial ditch, filled partially with tumbleweed and sunflower stalks, but containing plenty of animal life other than fish. Muskrats and crayfish very common.			
<i>Notemigonus crysoleucas auratus</i> - with ⁴⁵⁽⁴⁾ 12-13 anal rays. Large, active.			
<i>Notropis deliciosus missouriensis</i> ²⁵ 26-27 scales.			
<i>Notropis lutrensis lutrensis</i> A 9 in 2 D 1 in 1			
<i>Pimephales promelas promelas</i> - apparently breeding. MANDIBULAR TUBERCLES UNEVEN. LL. SHORT.			
133866 - 133869			

Some thoughts after viewing the photographs

This was an interesting project combining my interest in Nebraska's streams with an interest in history. In many cases I think I was able to get very near the spot where Raymond Johnson stood when he took his photos. In others, I was making my best guess as to whether this was the right stream, let alone the right spot on a stream. We could wish that they had taken photos of all of their study sites and streams as these might have given a fuller picture of change over time. But, we can see from many of the photo pairs that many streams in the state have changed relatively little over the years and some have changed a lot.

Streams like the Niobrara and Snake Rivers have not changed too much. For these, the stream and the landscape are still quite similar.

We can see changes in the landscape by noting (especially when trying to reproduce the photos) how there are a lot more trees now than in 1939-40. We can see this in 1939-1 where the hills that were sparsely covered in trees in 1939 are now solidly wooded. We can see this in 1939-39 where attempts to reproduce the photo were stymied by woodlands along the Niobrara. We can see this in 1939-40 where the horizon north of the Elkhorn River is treeless but not so in 2017. And how about 1940-58 where Big Sandy Creek is almost totally obscured by tree canopy that did not exist in 1940.

Another significant change to stream channels can be seen in the Platte River photos. Look at 1939-86, 1939-96 and 1940-78 for illustrations of this phenomenon. What was still a wide, shallow open river channel in the western part of the state in 1939/40 are now heavily vegetated and wooded corridors with a creek winding through it. .

Many of the streams along the eastern border have radically changed. Examples of this can be seen in the Weeping Water Creek photos (1940-25, 1940-27). Part of this may be due to the channelization of the Missouri River since the 1940's. The bed of the straightened river has degraded in part and the tributaries to the river had to follow along. But another cause could be the change in land use. Before agriculture came to Nebraska, these were grasslands which soaked up rainfall and fed it slowly to the streams. After conversion to row crop agriculture, rainfall quickly ran off the land resulting in flash floods and heavy erosion of stream channels. Even those tributaries that weren't channelized, the beds degraded and the streams widened so now many flow through mini-canyons.

One of the things we have noticed, even within recent years, is the extreme proliferation of cattails. Photo 1939-109 of Blue Creek is an example of this. While not photographed, a similar situation can now be seen in the upper Niobrara River. Some of these may be due to changes in flow and land use and other cases are not so clear. There are times when sampling a stream conjures images of Humphrey Bogart and Katharine Hepburn in the "The African Queen".

Enough of this, let us move on and look at the photo pairs.

**The Nebraska Stream Fishery Surveys
1939-1940**

The Photographs



Photo number: 1939-1

Stream: Western Sarpy Drainage Ditch

County: Sarpy

Description on rear of photograph: "Platte River bottoms drainage ditch 1 ½ mile SE Linoma Beach. Collection No. 1. June 7, 1939."

Collection Record: "Artificial ditch, filled partially with tumbleweed and sunflower stalks, but containing plenty of animal life other than fish. Muskrats and crayfish very common."

Locality: Sta.No.1: "Nebr. Platte Valley Drainage Ditch, 2 mi. SE Linoma Beach, Sarpy County."



Photo number: IMG_2527 (2017_08_08)

Lat/Long: 41.0597, -96.3078

Comments: The directions are pretty clear (1½ or 2 miles SE of Linoma Beach). At first, I was certain that I knew exactly where the photo was taken because I knew of two bridges on the Western Sarpy Drainage Ditch in that location. But . . . these were the wrong ones. Note the high hills in the background of the original photo. To take a photo of either of the two existing bridges would put the Platte Valley in the background not the hills. See the next photo, 1939-4, which was shot from one of the bridges and looking north. No hills.

These hills are running north and south on the east side of I-80. The bridge in the 1939 photo no longer exists but was a private bridge to allow access to farm fields on the north side of the channel. I examined the banks of the channel and found only one piece of timber about half way between the photo position and the culverts. Remains of the wooden bridge??

Of interest are the trees on the hills in the background. In 1939, the hills were mostly grass covered with a scattering of trees. Now they are completely covered in a dense forest.



Photo number: 1939-4

Stream: Western Sarpy Drainage Ditch

County: Sarpy

Description on rear of photograph: "New drainage ditch six months old Platte River bottoms E Linoma Beach" (sampled 8 June 1939)

Collection Record: "Very new drainage ditch, about 6 months old, yet banks stabilized with vegetation and fish in slowly moving water."

Locality: Sta.No.3: "Nebr. Platte Valley Drainage Ditch, 3 mi. SE Linoma Beach, Sarpy County."



Photo number: IMG_2495 (2017_08_07)

Lat/Long: 41.0597, -96.2971

Comments: Doesn't seem to have changed much except in bottom of channel which is now more confined and starting to meander within high banks.



Photo number: 1939-5

Stream: Platte River

County: Sarpy

Description on rear of photograph: "Sand bars in Platte River E Gretna Hatchery"

Collection Record: "Stream just dropping from June high-water marks. Braided channels appearing, sandbars being bared. Pools in bars seined, rather than swift stream."
(Sampled 8 June 1939)

Locality: Sta.No.4: "Nebr., Platte R., 2 mi. E. South Bend on Cass-Sarpy county line."

Comments: The Gretna Hatchery is now the Ak-Sar-Ben Aquarium and Schramm State Recreation Area. In the distance we see hills to the left and trees to the right, indicating low flat ground.



Photo number: IMG_2285 (2017_06_27)

Lat/Long: 41.0078, -96.2359

Comments: After much driving the roads along the lower Platte, finally found the location along the Gretna-Louisville road that follows the Platte. This road was paved a few years ago and there are several turnouts to allow parking for fishermen. About a mile south of the Ak-Sar-Ben Aquarium (aka Gretna Hatchery) one of these gave this view to the southwest. Matching up the hills to the left rear along with the low tree-covered ground to the right is a good match for the 1939 photo. The river looks like it has a lot of water compared to 1939. This is a little misleading. First off, 1934 to 1939 was a period of severe drought in the central Plains states. Also, the 1939 photo shows where they seined the pools rather than the main current. Currently, flows in the lower Platte River are affected by peaking power electric generation at Columbus using Loup River water. This causes a daily fluctuation in the river stage of some six to eight inches at the Louisville stream gage. This early morning photo shows the river near it's high point.



Photo number: 1939-9, 1939-10

Stream: Long Creek

County: Washington

Description on rear of photograph: 1939-9; "Creek into Missouri 1 mile north of Desoto. Tree roots laid bare by erosion." 1939-10; "Creek into Missouri 1 mile north of Desoto. Trees undermined and fallen into creek bed"

Collection Record: not a sample site.

Locality: not a sample site.

Comments: This was not a 1939-41 sample site. Desoto is a wide spot in the road 4.5 miles south of Blair. It is not a town but a collection of several houses. Long Creek starts several miles south and east of Desoto, crosses the highway here and enters the floodplain, flowing straight north to the Missouri. The above photos were taken in this lower section, exact location unknown. My guess is that 1939-9 is upstream towards Desoto and 1939-10 is downstream towards the river.



Photo number: IMG_2282 (2017_06_27)

Lat/Long: 41.5015, -96.0595

Comments: As noted earlier, Desoto is a wide spot on the road south of Blair with a bunch of houses. Long Creek runs through Desoto, draining north to the Missouri River. One mile north of Desoto is Omaha Public Power District's Fort Calhoun Nuclear Station. The original photos must have been taken on, what are now, the grounds of the Station. While the Station is now in the process of being decommissioned (i.e. shut down), trying to get permission to take a photo is probably not worth the effort. This photo is looking north towards the river from the highway bridge.



Photo number: 1939-19

Stream: North Fork Elkhorn River

County: Pierce

Description on rear of photograph: "Bend of the Elkhorn River east of Hadar. Typical of an eastern Nebraska stream."

Collection Record: "Stream quite muddy, and much colder than Elkhorn, into which it flows a few miles south."

Locality: Sta.No.35: "Nebr., Willow Creek, ½ mi. E. Hadar, Pierce County." Handwritten note following: "[North Branch on gov't map]."

Comments: This photo is not at Hadar but was taken from the next site upstream at Pierce. Raymond Johnson was confused by the "gov't map" and thought that this was Willow Creek.



Photo number: #36NorthForkElkhornRiver

Lat/Long: 42.2258, -97.5239

Comments: While the caption indicates that the 1939 photo is of the Hadar site, comparing the general orientation of the stream, I am sure that this is the Pierce site. Note the sharp bend to the right. At the Hadar site, the river bends to the left both upstream and downstream. [Side note: this and the Hadar site were where they collected Topeka shiners]



Photo number: 1939-24

Stream: Clear Creek

County: Butler

Description on rear of photograph: "Clear Creek 5 miles S Columbus"

Collection Record: "Such a stream is typical along Platte banks, and behind and below its naturally built levees. Has been planted with trout, but none caught by us." (sampled 15 June 1939)

Locality: Sta.No.17: "Nebr. Clear Creek, 4 mi. S. Columbus, in Butler County."

Comments: The ripples on the water indicate that the photo is looking downstream. Photo taken at Hiway 81?? This stream was sampled again on 11-12 June 1940 at four locations downstream (Stations 202, 203, 204, 205).



Photo number: #17,203,204Clear Creek

Lat/Long: 41.3764, -97.3603

Comments: The 1939 photo appears to be a smaller, flowing stream whereas the recent photo appears to be more pool-like.



Photo number: 1939-25

Stream: Maple Creek

County: Dodge

Description on rear of photograph: "Maple Creek at highway 77 north of Fremont."

Collection Record: "Stream apparently seasonal in flow, fish now in deeper holes (1 foot)."
(sampled 21 June 1939)

Locality: Sta.No.: "Nebr., Maple Creek, 6 ½ miles N. Fremont, Dodge County."

Comments: Not too much question on where this photo was taken. Looks like we are looking downstream.



Photo number: #27MapleCreek

Lat/Long: 41.5456, -96.5019

Comments: What to say? Not much different.



Photo number: 1939-30, 1939-31

Stream: Bazile Creek

County: Knox

Description on rear of photograph: "Bazile Mills dam, Bazile Mills"

Collection Record: "Stream rocky, fast, and clean for some distance. Seined at junction with main portion of Bazile Creek." (Actual sample site was 0.2 mi. downstream at junction with Spring Creek which was sampled 23 June 1939)

Locality: Sta.No. 39: "Nebr. Bazile Creek, ½ mi. E. Bazile Mills, Knox Co."

Comments: The dam is gone but the concrete abutments survive. The photo at right of the creek looks like it was taken while standing on the top of the dam and looking downstream.





Photo number: IMG_2248 (2017-06-17)

Lat/Long: 42.5118, -97.9027

Comments: Could not retake the photograph from the same angle as the original because the tree at the right edge of the photo blocks the view from that angle. The center of the mill dam is gone through the abutments remain. Looking at how much concrete is exposed, it looks like the land has aggraded quite a bit as they are more than half buried. The photo below is a scan of a 35mm slide taken on 8 May 2004.





Photo number: 1939-32

Stream: Bazile Creek

County: Knox

Description on rear of photograph: "Bazile Creek above Center." (Bazile Creek was sampled 23 June 1939)

Collection Record: "Stream here is not as rapid as farther above, but is shallower, muddier, and wider. Less shaded."

Locality: Sta.No.40: "Nebr., Bazile Cr., Center, Knox Co."

Comments: "Bazile Creek above Center"? How far above Center? Their map shows the sample site was just on the north edge of Center. The photo shows a much smaller and very different stream from Bazile Creek as it now appears at Center. So, what we have here is a photo of Bazile Creek that was taken after they left Bazile Mills. It is not a photo of the sample site down by Center which is shown here at right.





Photo number: IMG_2250 (2017_06_17)

Lat/Long: 42.5469, -97.8903

Comments: Based on the timing of stream samples and the sequencing of the photos, the original photo must be of Bazile Creek. But where? The old plat maps show that all or parts of the road between Creighton and Center (now Hiway 13) has been moved several times. Furthermore, most of the original road is gone. Examination of aerial photos show that traces of a road can be seen in fields, as farm roads and short pieces of county road. The 1940 plat map isn't of much value as it looks like the road was drawn by a kid with a crayon. This is a view of the creek from Hiway 13 at the first bridge north of Creighton.



Photo number: 1939-33

Stream: Unnamed to Verdigre Creek

County: Antelope

Description on rear of photograph: "Small stream and spillway, Dikeman's fishery, Royal."

Collection Record: "Stream feeds hatchery ponds." (sampled 23 June 1939)

Locality: Sta.No.41A: "Nebr., Dikeman's ponds, Verdigre River, 1 mi. N, 1 mi. E Royal, Antelope Co."

Comments: See next page. They took a photo of the small tributary and spillway but sampled Verdigre Creek just northeast of this spot.



Photo number: IMG_2455 (2017_08_02)

Lat/Long: 42.3589, -98.1100

Comments: Charles Dikeman's property was across the road to the north and west of the present location of Grove Trout Hatchery. Talk about serendipity! I visited the area, showing landowners the photo and asking about this spillway. The second one I asked (a Mr. Johnston) knew exactly where that concrete spillway was located, because he had buried it himself.

Mr. Dikeman had developed this property in the 1920's and 30's as a recreation area with a swimming pool, fish ponds and picnic areas. [The concrete spillway in the photo was constructed to mount an electric generator]. Then WWII started, all the men left, austerity measures were implemented (gas and tire rationing) and his recreation business collapsed. He sold the property to the present owner's family in 1948. According to Mr. Johnston, the original dam ran east-west (the photo is looking west along the dam's axis). The spillway was on the east end of the dam at the end of a long concrete channel. The dam had been deteriorating for some time and he removed it and rebuilt it north-south, burying the spillway in the process. This photo looks right at the "new" dam. The concrete spillway is buried at the south end of the dam in a spot behind the small tree on the left side of the photo.



Photo number: 1939-37

Stream: Niobrara River

County: Boyd/Holt

Description on rear of photograph: "Niobrara River west of Niobrara. June 24, 1939"

Collection Record: not a sample site

Locality: not a sample site

Comments: They drove from the sample sites at the mouth of the Niobrara westward along the old Hiway 12 (a gravel road in 1939), crossing the river at the Redbird bridge (Photo 1939-39) south of Lynch. This must have been taken from a spot on that road.



Photo number: IMG_2562_63 (2017_08_17)

Lat/Long: 42.7279, -98.1469

Comments: This view was a challenge to rediscover. That is until I hit upon the idea of reconstructing their itinerary. First looked at dates and times when they sampled stream sites. Then assumed that the photographs were numbered and labelled in the sequence they were taken. Finally, went back to old plat maps and the 1940 road map to locate the route of Hiway 12 at the time they were travelling through this area. The photographs said they were in Niobrara in the morning then drove Hiway 12 taking this photo followed by a photo of Ponca Creek and then another photo of the Niobrara south of Lynch before travelling to Steel Creek for a late afternoon sampling. Up until 1960, Hiway 12, after crossing the Niobrara River, cut south to follow the river for a ways then turned back north to Verdel. Fortunately, most of the old route still exists as county roads. This view was taken from a spot just east of the Riverview Cemetery.

The Niobrara River appears to be narrower now and the banks have a dense growth of trees. The far bank has hills and draws that are visible in the 1939 photo but are totally hidden by trees in this 2017 photo. There are more trees on the near slope in the center of the photograph. Otherwise, it is still grassland



Photo number: 1939-38

Stream: Ponca Creek

County: Holt

Description on rear of photograph: "Steel Creek west of Dorsey."

Collection Record: Not a sample site.

Locality: Not a sample site.

Comments: Technically, Steel Creek is east of Dorsey. Steel Creek is a short stream and I drove the roads in that area, looking for a scene that looked like this. I could not find one.

However, let us assume that the photos were numbered in the order in which they were taken. This photo was taken after the image of the Niobrara River south of Verdel and before the image of the Niobrara River south of Lynch. The easiest route between the two is along Ponca Creek between Verdel and Lynch.



Photo number: IMG_2487 (2017_08_03)

Lat/long: 42.8219, -98.2494

Comments: Based on the sequence in which the photos were taken, 1939-38 had to be Ponca Creek. However, since 1939/40, many of the roads along Ponca Creek between Verdel and Lynch have been moved and the old roads no longer exist.

I think this might be the right spot but am not at all sure. In most cases, when I found the right spot, I got the feeling of déjà vu all over again. The feeling that “This is IT! This is the spot!”. I didn’t get that here. This photo was taken from the side of Hiway 12. The gravel road in the lower left (running north/south) ran straight north over the hill at one time. Now it stops and turns left at the bottom of the hill. If this is the right spot, the photo might have been taken from the hill in the lower right which would have been alongside the gravel road in 1939. Now it is in the middle of a pasture on private land.



Photo number: 1939-39

Stream: Niobrara River

County: Holt

Description on rear of photograph: "Niobrara Valley west of Niobrara. June 24, 1939."

Collection Record: Not a sample site.

Locality: Not a sample site.

Comments: This is the Redbird bridge south of Lynch looking north. Note the side road leading off to the right a few yards down the road. Then look how the bridge is at an angle to the north/south road then, after it crosses the river, the road turns right then goes around a tight curve back to the left as it climbs the hill.



Photo number: IMG_2481 (2017_08_03)

Lat/Long: 42.7668, -98.6422

Comments: Here you can see the side road leading off to the right. The bridge stills angles to the left then the road goes right to the bend halfway up the hill. The roads are in the same place they were in 1939.

This image highlights one major change. Nebraska has a lot more woodlands and wooded areas now than in 1939. Where there was a small grove of trees on the left side of the road in 1939, now it is impossible to see the river for the trees.



Photo number: 1939-40

Stream: South Fork Elkhorn River

Description on rear of photograph: "Beginning of the Elkhorn River at Stuart. June 25, 1939."

County: Holt

Collection Record: "Elkhorn River heads a few miles above here, trickles down thru a grassy channel surrounded by hay land, and at this point widens into a pool under highway #20 bridge. Collection made in pool."

Locality: Sta.No.49: "Nebr. Elkhorn River, 5 mi. West of Stuart, Holt County."

Comments: In addition to descriptions, I have been trying to use landmarks such as hills in the background to locate photo sites. However, here there are no landmarks. The country is dead flat which holds true for the entire upper Elkhorn drainage.



Photo number: IMG_2257 (2017_06_18)

Lat/Long: 42.5942, -99.2079

Comments: The description says “5 mi. west of Stuart” and states that the stream was sampled at the Hiway 20 bridge. Well, the Hiway 20 bridge is 3 miles west of Stuart. This photo is looking downstream from the Hiway 20 bridge. It looks right and I am 90% sure that this is the correct location. The stream curves in nearly the same manner and the bridge in the background is in the right position relative to the 1939 photo. But, perhaps it doesn't matter that much as, after looking at almost every road crossing over the Elkhorn (both North and South Forks), they all look about the same.

Zooming in on this photo, you can see a section of rock rip-rap in the center of the photo and further downstream additional rip-rap in the section upstream of the bridge. An aerial photo indicates a historical channel that may be the one photographed in 1939. Since then, the channel has changed and rip-rap was placed to keep it there.

The 1939 photo has exactly four trees visible in the foreground and, maybe, three more on the horizon. In the current photo, the horizon shows a solid line of trees.



Photo number: 1939-46

Stream: Niobrara River

County: Cherry

Description on rear of photograph: "Niobrara east of Valentine."

Collection Record: Not a sample site.

Locality: Not a sample site.



Photo number: IMG_2568 (2017_08_17)

Lat/Long: 42.9036,-100.3849

Comments: Had some trouble finding the correct position as “east of Valentine” doesn’t narrow it down very much. But then, as I drove the county road on the south side of the river between Fort Niobrara and the Berry Bridge I spotted this. Hard to retake the photograph as tree growth is blocking the view. The scene is very similar. Changes include; more tree growth on the hills, the formation of an island and changes in the tree growth along the river.

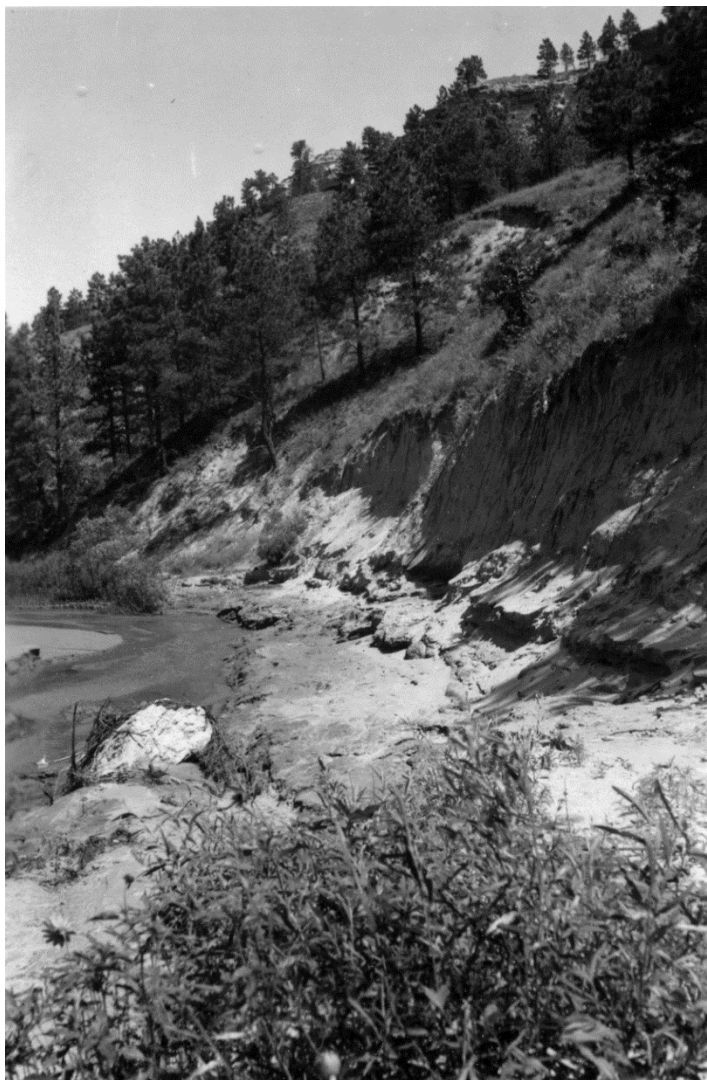


Photo number: 1939-48, 1939-49

Stream: Fishberry Creek

County: Cherry

Description on rear of photograph: Photo 1939-48: "Flood canyon behind Valentine hatchery." Photo 1939-49: "Canyon cut by flooding creek just a few weeks previous - Valentine Hatchery, Valentine. It took this creek just a few hours to rise, cut a new canyon and subside to its present size. We never camp in such places for fear of such "flash" floods." (Site sampled 27 June 1939)

Collection Record: "Formerly a good stream, frequently dammed for hatchery rearing ponds, now very low. Flood some weeks ago washed out everything. Water now low, and hot due to shallowness and lack of shade."

Locality: Sta.No.53: "Nebr., Hatchery Creek, $\frac{3}{4}$ miles NE Valentine Fish Hatchery, Valentine, Cherry Co."



Photo number: IMG_2177 (2017_04_26)

Lat/Long: 42.8966, -100.5338

Comments: Boy, this one was tough to match up as the area has changed a lot since 1939. Mostly because of the dense growth of trees and brush in the bottom coupled with forest fires a few years ago that cleaned off the hills. The dense brush made it almost impossible to match the photo exactly. I think this might be the correct area by matching the rock outcroppings at the top of the hill. The stream no longer flows at the base of the bluff as shown in the 1939 photo and it is quite a bit smaller as can be seen below. It is easy to jump across in most places.

I don't have any idea where photo 1939-49 was taken but it might have been one of the ponds just north of the hatchery that got blown out by the flood.





Photo number: 1939-60

Stream: Snake River

County: Cherry

Description on rear of photograph: "Snake River 8 miles above falls."

Collection Record: "River has fall of 10 feet per mile here, very fast. Bottom channelled or ridged, net will not stay on bottom completely. Trout often planted here but not found." (sampled 28 June 1939)

Locality: Sta.No.55: "Nebr., Snake Creek, W. of Simeon, S. of Burge, Cherry Co."

Comments: I was at a loss as to how to find this site until I recognized the hills in the left background. They are the hills on the west end of Merritt Dam. This site is now under the waters of Merritt Reservoir.



Photo number: IMG_2184 (2017_04_26)

Lat/Long: 42.6227, -100.8638

Comments: How about this for change? Merritt Dam is the straight line from the center of the photo to the right edge. The photo site for 1939-60 is out there under the lake.



Photo number: 1939-61, 1939-62,
1939-63

Stream: Snake River

County: Cherry

Description on rear of photographs:
"SnakeRiver Falls. "

Collection Record: Not a sample site.

Locality: Not a sample site.

Comments: They must have liked the Falls
cause they took so many photos.

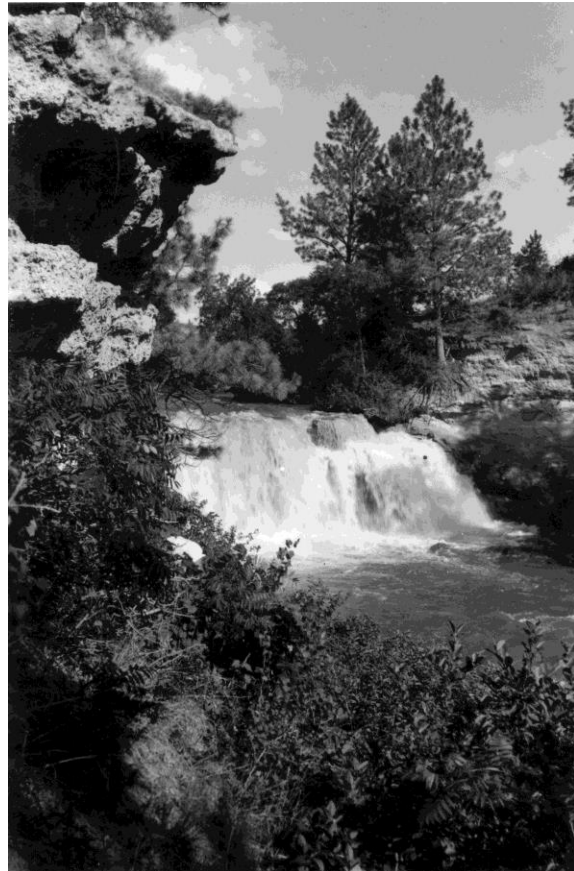




Photo number: Snake River (2007_06_13)

Lat/Long: 42.6754, -100.8559

Comments: This is an attempt to replicate the 1939-61 photo sent by Raymond Johnson. Taken during the summer when the Merritt Dam outflow is shut off. The 1939 photos are will full flow before the construction of Merritt Dam.



Photo number: 1939-64

Stream: Snake River

County: Cherry

Description on rear of photograph: "Canyon below Snake River falls."

Collection Record: "River has a fall of 10 feet per mile here, very fast. Bottom channeled or ridged, net will not stay on bottom completely. Trout often planted here but not found."

Locality: Sta.No.55: "Nebr., Snake River Creek, W. of Simeon, S. of Burge, Cherry Co."

Comments: This is about a quarter mile down from the Falls. Not completely certain that this was the sample site but it was probably pretty close. My guess is that they tried to sample below the falls because that was the easiest place to get down to the stream.



Photo number: IMG_2181 (2017_04_26)

Lat/Long: 42.6790, -100.8557

Comments: It appears that there is more vegetative growth in the canyon, making it hard to see the river. I think I can see some of the same trees in both photos. The shadows suggest that these were taken about the same time of day (afternoon). The river is visible in the bottom of the canyon.

[Note: the lower right corner of the photo shows the edge of the canyon marking the top of those vertical cliffs you can see in the distance. I have a real problem with heights (well, falling off of heights) and I was not willing to get any closer to that steep drop off. Several of Johnson's photos show he had no such problem.]



Photo number: 1939-86

Stream: Platte River

County: Buffalo

Description on rear of photo: "Dry bed of Platte River at Kearney. July 12, 1939."

Collection Record: "River very low, only few pools found around bridge pilings."

Locality: Sta.No.85: "Nebr., Platte River, due S. Kearney, Buffalo Co."

Comments: No way to tell which direction the original photo was taken. At right is a recent aerial photo of the same area. Historical channel is wooded area through center of photo. Many sand/gravel pits have been dug in old channel which are being converted to housing developments.





Photo number: IMG_2191 (2017_05_03)

Lat/Long: 40.6570, -99.0861

Comments: An assuming that the 1939 photo was taken from one end of the Kearney bridge over the Platte River. This was taken from the south end of the current Kearney bridge.

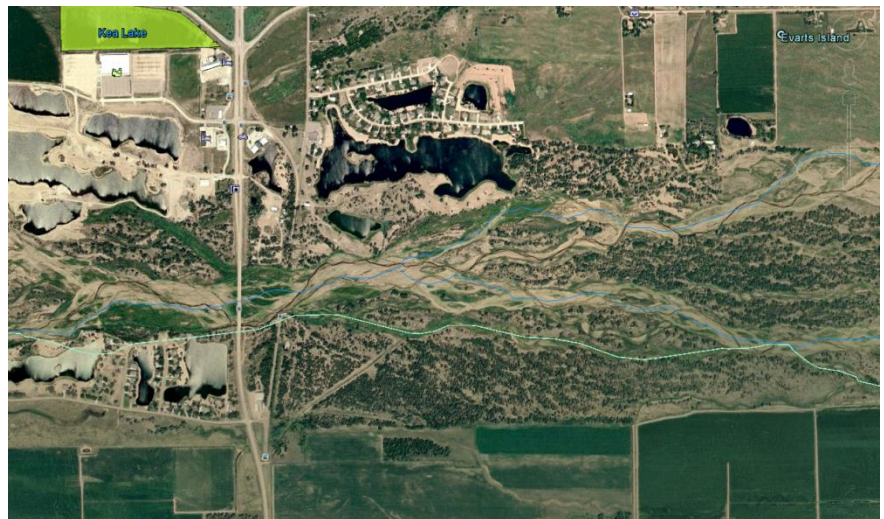




Photo number: 1939-87

Stream: Platte River

County: Hall

Description on rear of photo: "Approaching storm cloud over dry Platte River, Grand Island. July 18, 1939."

Collection Record: This site was visited twice.

18 July 1939: "Compare with #275. Small pool on dry Platte Bed, under bridge abutment. Some circulation and under-ground flow, but not enough to keep water cool."

29 July 1940: "Compare with #79 – same location. River dry except for pool under bridge, containing some fish. Collection made at same place as in 1939, but river drier earlier this year."

Locality: Sta.No.79 and Sta.No.275: "Nebr., Platte River, SE Grand Island at Highway 34 bridge, Hall Co."

Comments: The next photo states that the sample site was at the Hiway 34 bridge. The photo at right is an aerial photo of the river section at Hiway 34, se of Grand Island. The 1939 channel is denoted by the wooded area angling from lower left to upper right. The current active channel is $\frac{1}{4}$ to $\frac{1}{3}$ of the historical channel.



Photo number: IMG_2261 (2017_06_26)

Lat/Long: 40.8739, -98.2824

Comments: This photo is looking upstream from the Hiway 34 bridge. A recent aerial photo of the same location is at lower right. Note the width of the wooded area on both sides of the current river channel. This shows the edges of the 1939-40 active river channel.

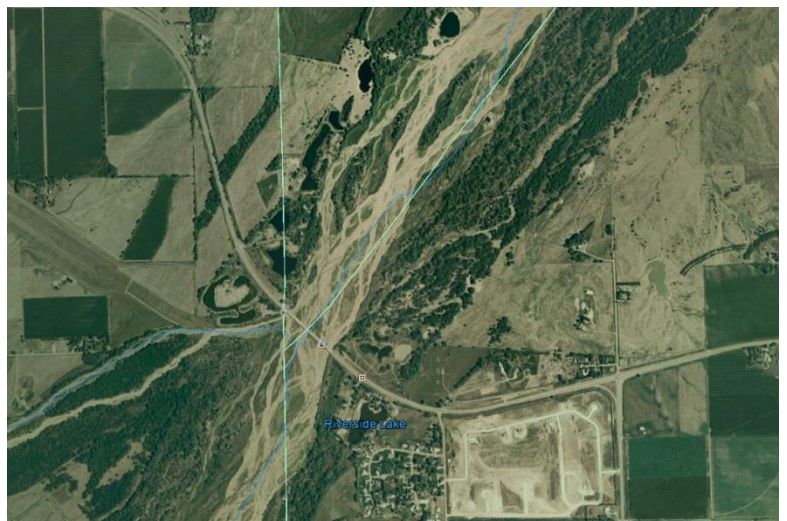




Photo number: 1939-88

Stream: Platte River

County: Hall

Description on rear of photo: "Pool under bridge over Platte, Grand Island. July 18, 1939."

Collection Record: Station sampled twice in 1939 and 1940.

18 July 1939: "Small pool on dry Platte bed, under bridge abutment. Some circulation and under-ground flow, but not enough to keep water cool."

29 July 1940: "Compare with #79 – same location. River dry except for pool under bridge, containing some fish. Collection made at same place as in 1939, but river drier earlier this year."

Locality: Sta.No.79 and Sta.No.275: "Nebr., Platte River, SE Grand Island at Highway 34 bridge, Hall Co."



Photo number: IMG_2263 (2017_06_26)

Lat/Long: 40.8740, -98.2822

Comments: The 1939 bridge is long gone (this bridge had a new deck put on only a couple of years ago). There is quite a bit of water now but I have seen it when it was as dry as in 1939. The river is much smaller now so the trees in the distance that look a lot closer than in the 1939 photo really are much closer.



Photo number: 1939-96

Stream: North Platte River

County: Lincoln

Description on rear of photograph: "North Platte River north of Sutherland. July 22, 1939."

Collection Record: "Caught no *Fundulus* or *Platygobio*. Didn't get into current where *Platys* might exist, if at all. Bare flow in river at this date."

Locality: Sta.No.89: "Nebr., North Platte R., 3½ mi. N. Sutherland, Lincoln Co."



Photo number: IMG_2136 (2007_04_13)

Lat/Long: 41.2094, -101.173

Comments: Most of the open river channel of 1939 is now woodlands. The only way to compare the photos is to look at the hills on the far side of the river which are now mostly obscured by trees and you can just barely see the river channel. Below is an aerial photo of the same stretch of river. The Sutherland bridge is on the left edge of the image. The wooded area through the center of the image is the historical river channel.





Photo number: 1939-109

Stream: Blue Creek

County: Garden

Description on rear of photograph: "Blue Creek in Garden County. Near Migratory Bird Refuge. July 26, 1939."

Collection Record: "Maps show this creek draining Crescent Lake – erroneous. Arises to the SW of that lake." (sampled 26 July 1939)

Locality: Sta.No.109: "Nebr., Blue Creek, 13 mi. N. Oshkosh, Garden Co."

Comments: His statement that the stream arises SW of Crescent Lake may have been correct but now there is a dug cannel connecting Crescent Lake to Blue Creek.



Photo number: IMG_2415 (2017_07_13)

Lat/Long: 41.6005, -102.3340

Comments: Quite difficult to match photographs with so few landmarks to compare. Both photos were taken from a position on the road east of the bridge. Tried to match the shape of the line of hills in the distance. This looks pretty close.

The most visible difference are the huge number of cattails growing here which are confining the channel. Cattails form dense monocultures that crowd out all other plants. Within the stream, they grow into the channel, trapping sediment which allows them to grow further into the channel which traps more sediment which allows them to grow. . . The result is a narrow deep channel.



Photo number: 1939-126

Stream: Sowbelly Creek

County: Sioux

Description on rear of photo: "Russell seining for long-nosed dace in upper Sowbelly Canyon, N Harrison. August 1, 1939."

Collection Record: "Water not permanent, and very shallow and scarce."

Locality: Sta.No.126: "Nebr., Sowbelly Creek, NE of Harrison, Sioux County."

Comments: This is a site where Johnson reported collecting "abundant" young of the Mountain Sucker.



Photo number: IMG_2109 (2017_04_12)

Lat/Long: 42.7305, -103.8431

Comments: This looks pretty close to the original which is the uppermost crossing (or, coming down the canyon road from Harrison, this is the first place you cross the stream).



Photo number: 1939-150

Stream: Snake River

County:Cherry

Description on rear of photo: "Where the Snake River really merits its name. South of Merriman. August 8, 1939."

Collection Record: "Stream too swift (fastest in Nebr., ave. fall 8' per mile) for large seine. Falls numerous above and below here, and rainbow trout often planted at this point. None taken by us. The insurmountable Snake River Falls are at least 54 to 60 miles below this point."

Locality: Sta.No.137: "Nebr., Snake River, 24 mi. S. 6 mi. E. of Merriman, Cherry Co."



Photo number: IMG_2142 (2017_04_18)

Lat/Long: 42.5747, -101.7087

Comments: Surprisingly difficult to duplicate photo. The channel has migrated quite a bit and portions cut off. The bend at the bottom of the high bluff in the foreground of the 2003-05 photo is the bend in the left-center of the 1939 photo. It migrated north and has spent many years eating at the base of the high sand hill to the left. While the river is still “snaky” it is also a sidewinder, moving laterally back and forth across it’s valley.



Photo number: 1939-152

Stream: Niobrara River

County: Sheridan

Description on rear of photo: "Niobrara River south of Gordon. August 9, 1939."

Collection Record: "Stream beginning to become warm and dirty, but is yet relatively free from siltiness and sand which characterizes it below here. Level 4" below that of last year."

Locality: Sta.No.280: "Nebr., Niobrara R. South of Gordon on Hway 27, Sheridan Co."

Comments: The photo was recorded as being taken in 1939 but was not sampled until 2 August 1940. This may be why he mentions that the level (when sampled) was "4" below that of last year". Add 4" to the flow and this would have been really hard to sample with a seine.



Photo number: IMG_2112 (2017_04_12)

Lat/Long: 42.6396, -102.2097

Comments: The near bank, where the water was flowing in 1939 is now a low terrace with the river flowing further to the south.



Photo number: 1940-1

Stream: Platte River

County: Platte County

Description on rear of photograph: "Platte River – braided channels NW Bellwood, 1 mile below Loup River inlet. June 12, 1940."

Collection Record: not a sample site.

Locality: not a sample site.

Comments: This is Johnson's first photo of the 1940 field season. Photo 2 was "Paul Romberg fishing from R.R. bridge. Platte River nw Bellwood. June 12, 1940." Note the shadow of a RR bridge on the water which matches the bridge visible in Photo 2. If morning, we are looking upstream. If evening, the view is downstream but no way to tell from the photo.



Photo number: IMG_2332 (2017_06_29)

Lat/Long: 41.3993, -97.2806

Comments: The description says that the location was northwest of Bellwood and 1 mile below the Loup. Well, there are no road bridges in that area but the original photo shows the shadow of an iron truss bridge. There are railroad bridges in that location but, there is no access to those unless one floated down the river. This photograph is from the mouth of the Loup Power Canal downstream towards one of the railroad bridges.



Photo number: 1940-16

Stream: Clear Creek

County: Saunders County

Description on rear of photograph: "Paul Romberg holding continuous mat of Spirogyra in Clear Creek, Saunders Co., N of Ashland. June 14, 1940."

Collection Record: "All minnows hiding under mats of algae at side of narrow stream."

Locality: Sta.No.209: "Nebr., Clear Creek, 4 mi. N. of Ashland, Saunders County."

Comments: Water appears to be clear. Heavy growth of algae implies high fertility of water. [Hard not to comment on skinny pale legs (which I just did)]. Banks are steep and well vegetated.



Photo number: #20,209ClearCreek

Lat/Long: 41.0886, 96.3792

Comments: This photo does not exactly reproduce the original but the original doesn't include any landmarks that can be used to find the location. We see a vegetated stream bank with clear water and a mat of algae being held up by Paul Romberg. The photo above shows the same as well as an overall view of the landscape. Note that there are still large mats of algae in a clear stream with steep vegetated banks.



Photo number: 1940-25

Stream: Weeping Water Creek

County: Cass County

Description on rear of photograph: "Weeping Water Creek – stagnant west of Nehawka. High weeds on bank. June 24, 1940."

Collection Record: "Stream examined 3 mi. E, $\frac{1}{2}$ N of Elmwood, Cass Co. and 1 mi. W. of Nehawka, but found dry or stagnant in both places. Channel dredged at Weeping Water. Collection taken $\frac{3}{4}$ mile above stream's junction with Missouri River."

Locality: not a sample site.

Comments: The Weeping Water Creek sample site was 5 miles SE of Union near the Missouri River. This photo is one of the two upstream sites. The directions for the Elmwood location actually put you on an unnamed tributary to Weeping Water Creek.



Photo number: IMG_2518 (2017_08_08)

Lat/Long: 40.8437, -96.0453

Comments: The description is that this is Weeping Water Creek one mile west of Nehawka. But, presently, Weeping Water Creek in this region is a much larger stream that has degraded many feet due to the aftereffects of the Missouri River channelization project. As the the bed of the Missouri degraded, the tributaries had to follow. The orientation of the stream is the same though so this must be the site. This is two miles west of Nehawka.



Photo number: 1940-27

Stream: Weeping Water Creek

County: Cass County

Description on rear of photograph: "Weeping Water Creek west of Union, showing high water marks of two days previously. June 24, 1940."

Collection Record: "Stream examined 3 mi. E, $\frac{1}{2}$ N of Elmwood, Cass Co. and 1 mi. W. of Nehawka, but found dry or stagnant in both places. Channel dredged at Weeping Water. Collection taken $\frac{3}{4}$ mile above stream's junction with Missouri River."

Locality: not a sample site. Actual Weeping Water site was Sta.No.212: "Nebr., Weeping Water Creek, 5 mi. SE of Union, Otoe Co."



Photo number: IMG_2286 (2017_06_27)

Lat/Long: 40.8133, -95.9303

Comments: It is difficult to believe that this is the same stream. But the 1940 photo was taken “west of Union” and this photo is Weeping Water Creek at the Hiway 34 bridge which is just west of Union. I believe we are viewing the aftereffects of the Missouri River channelization project. The bed of the Missouri degraded many feet and the tributaries had to follow. The Weeping Water Creek of 2017 is a much larger stream than it was in 1940.



Photo number: 1940-30

Stream: Little Nemaha River

County: Nemaha County

Description on rear of photograph: "Boys playing in Little Nemaha River south of Nemaha, Nemaha Co., June 26, 1940."

Collection Record: not a sample site

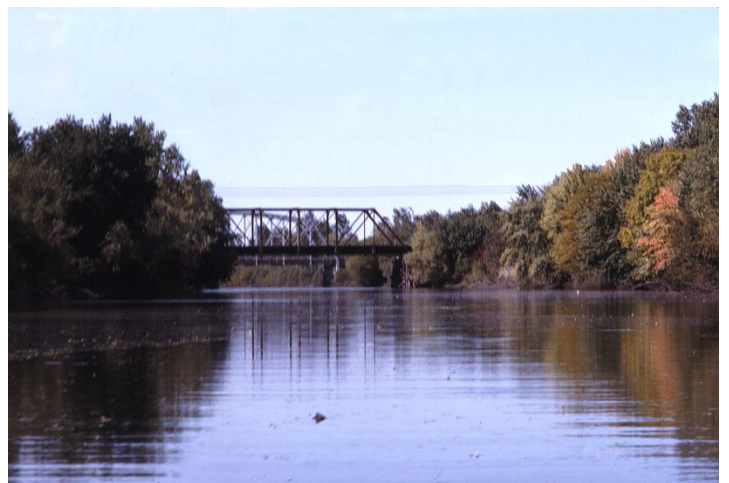
Locality: not a sample site



Photo number: IMG_2289 (2017_06_27)

Lat/Long: 40.3237, -95.6762

Comments: The railroad bridge visible in the 1940 photo is now gone but was still there in 1978 (see below). The 1978 photo was taken from downstream so you can see the highway bridge too. The streams look similar except that it is probable that the bed has degraded many feet due to the Missouri River channelization. At this point there is little current in the Little Nemaha as the Missouri River is at the same level which causes the water to back up. Looking at the 1940 photo it looks like those boys could stand up in their boat and touch the bottom of the bridge. That was not possible in 1978 where the distance between the river and the bridge is almost the same as the height of the bridge span. As an aside: The 1978 photo was taken 38 years after the 1940 photo. The photo above was taken 39 years after the 1978 photo.



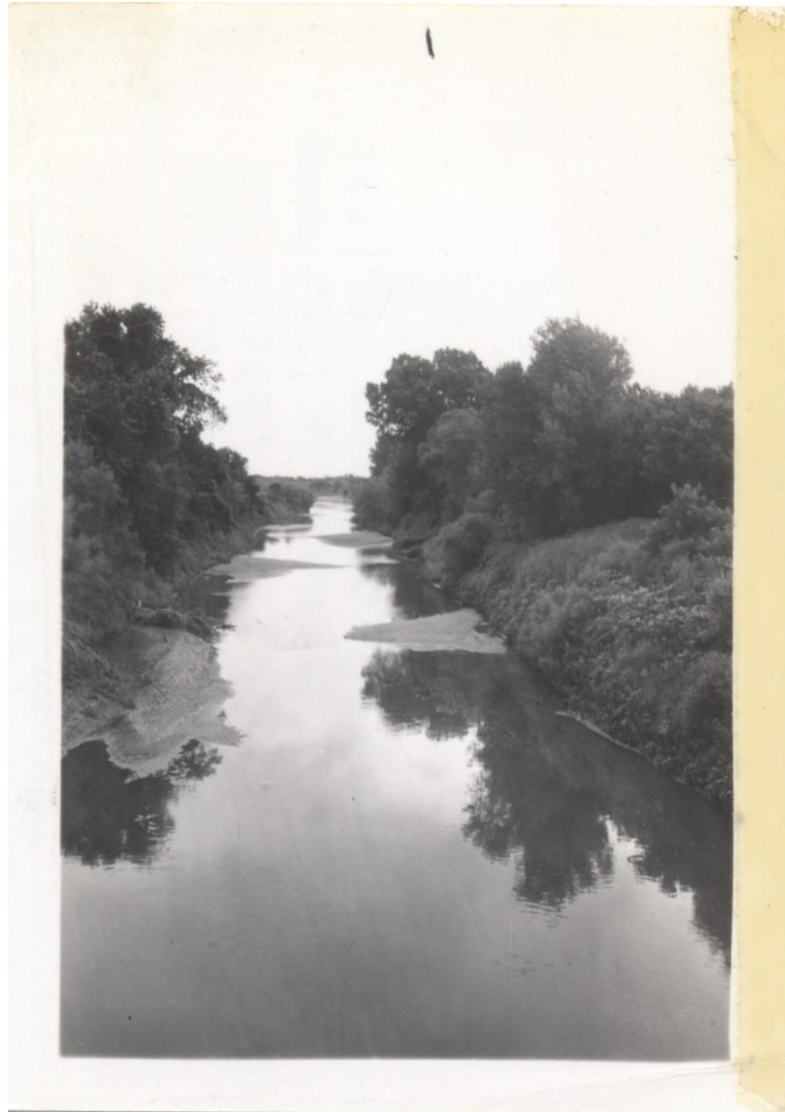


Photo number: 1940-34

Stream: Little Nemaha River

County: Nemaha County

Description on rear of photograph: "Little Nemaha River $\frac{1}{2}$ mi. E of Stein, Nemaha Co. Showing meandering channel even in dredged portions. June 26, 1940."

Collection Record: "Stream seined at point where Missouri River backs up into Nemaha channel, causing current stagnation for four miles. Stream bottomed with sand but muddy along edges, showing sand to have been carried down from upstream by higher waters."

Locality: Sta.No.220: "Nebr., Little Nemaha R., $\frac{1}{2}$ mi. East from Stein, Nemaha Co."

Comments: Cannot find a "Stein" on any maps, current or historical (as far back as 1913), but notes on Collection Record suggest the site if four miles up from the mouth.



Photo number: IMG_2292 (2017_06_27)

Lat/Long: 40.3926, 95.8134

Comments: Never was able to find a “Stein” on any map. The description indicates that they looked at the stream about four miles up from the Missouri. Now there are no bridges in that section of river. Channelization of a stream results in an increase in the gradient of the stream which causes in an increase in the speed of the current. A steeper, faster stream has more power to carry sediment. So the stream eats at it’s bed causing the stream banks to become unstable which then collapse into the channel which the current carries downstream. The process continues and the result is failed bridges and high maintenance costs associated with continual repair/replacement after floods. In the long term, counties cannot afford this and simply remove the bridges. The first bridge upstream of Nemaha is just east of Auburn and this is where this photo was taken.



Photo number: 1940-41

Stream: Cottier Creek?

County: Richardson County

Description on rear of photograph: "Paul knee-deep in mud of Cotcher Creek, and with glacial drift under the loess behind him. E. of Barada, Richardson Co. June 27."

Collection Record: "Stream incised deeply (40 feet) into loess beds, at one place uncovering glacial deposits at that depth. Stream bed very soft, on loess, and pools silted to depth of 3 feet. Fish population scarce both in numbers and species. Frogs, raccoons, Natrix common."

Locality: Sta.No.221: "Nebr., Cotcher Creek, 5 mi. E. Barada, Richardson County."



Photo number: IMG_2537 (2017_08_09)

Lat/Long: 40.2065, -95.5098

Comments: I cannot find the location shown in the 1940 photo. This photo is of Cottier Creek four miles east and one mile south of Barada. A location five miles east of Barada puts you on the Missouri River floodplain. If this stream has followed the pattern of other Missouri River tributaries, it's bed has degraded many feet and would be almost unrecognizable now. The photo was taken off the county road and the banks are really steep down to the creek (barely visible in the right center). In the top left, you can just see the top of the cut bank which is about 10 feet from the edge of the road. Perhaps if one got down to the creek and followed it, one might (I say "might") find the original site. But I would wager that all of that silt has been washed out and the bed degraded several feet. Now the stream is small, narrow and quite clear when viewed from the road and looks like it has a gravel bed.



Photo number: 1940-46

Stream: Rock Creek

County: Richardson County

Description on rear of photograph: "Limestone bottom and rocky bluffs by Rock Creek, SW of Salem, Richardson Co. June 28, 1940."

Collection Record: "One of the rare limestone-bottomed creeks in Nebr. Gradient steep, but mud flats common."

Locality: Sta.No.225: "Nebr., Rock Creek, 3 mi. S., 3 mi. W. of Salem, Richardson Co."



Photo number: #225RockCreek

Lat/Long: 40.0333, 95.7744

Comments: These two photos don't match up very well. I have looked at the streams in the area and cannot find a site that matches the 1940 photo.



Photo number: 1940-47

Stream: Fourmile Creek

County: Richardson County

Description on rear of photograph: "Muddy water of Fourmile Creek, NE of Dubois, Richardson Co. June 28, 1940."

Collection Record: "Very muddy, stinking creek with slow current, high banks, few very short and shallow gravel "runs" from one pool to another."

Locality: Sta.No.226: "Nebr., Fourmile Creek, 5 mi. E. 1 N. of DuBois, Richardson Co."

Comments: "muddy, stinking creek"? Guess they didn't like this one very much. (I don't either.)



Photo number: #226FourmileCreek

Lat/Long: 40.0442, -95.9393

Comments: The description of the stream is still pretty accurate. Large muddy pools separated by short gravel riffles.



Photo number: 1940-49

Stream: Muddy Creek

County: Richardson County

Description on rear of photograph: "Big Muddy Creek $\frac{1}{2}$ mile west of Stella, Richardson Co. July 2, 1940."

Collection Record: "Stream channel dredged, straightened. Fish hiding under bridge where depth was slightly greater and shade was afforded."

Locality: "Nebr., Big Muddy Cr., $\frac{1}{2}$ mi. W. of Stella, Richardson Co."



Photo number: IMG_2298 (2017_06_27)

Lat/Long: 40.2328, -95.7829

Comments: The stream is still straight as a ruler but considerably wider and carrying more water. As is typical of channelized streams, the channel has deepened and widened considerably since 1940. Of course, the most noticeable change is the heavy growth of woody vegetation on the banks. In spite of its name, during the summer and fall when flow is low, the stream is quite clear and has a sandy bed. Banks are really steep.



Photo number: 1940-50 (above), 1940-51(below)

Stream: North Fork Big Nemaha River

County: Pawnee County

Description on rear of photograph: 50 (above): "Big Nemaha River 3 mi. North of Table Rock, Pawnee Co. Limestone bedrock forms bottom of river here with deeper, soft-bottomed pool up under the bridge. July 2, 1940."

51 (right): "Big Nemaha River 3 mi. north of Table Rock, Pawnee Co. Limestone rubble, which was very hard on the nets. Current swift, big *N. lutrensis* and *P. mirabilis* there. July 2, 1940."

Collection Record: "Bedrock has many low falls, over which fish can hop even in low water. Many pools, some of which are mud-bottomed, others rock-bottomed. Rocks on bottom are part of Penn. limestone outcroppings, sharp and angular enough to catch and tear bagseine."

Locality: "Nebr., North Fork Big Nemaha River, 3 mi. N. of Table Rock, Pawnee Co."





Photo number: IMG_ 2289 (2017_06_27)

Lat/Long: 40.2389, -96.1053

Comments: The 1940 photo was taken from downstream looking back up at the bridge. This is the opposite, looking downstream from the bridge. While I can see rocky riffles, the site doesn't look anywhere near as rocky as in 1940.



Photo number: 1940-53

Stream: Turkey Creek

County: Pawnee County

Description on rear of photograph: “ Turkey Creek, Pawnee Co., showing narrow channel incised in hard basic soil by high flood waters of a few weeks back. July 3, 1940.”

Collection Record: “Stream recently flooded, but receded 15 feet in a few hours again. Some hard-bottomed pools left in channel but stream bed is mostly very soft, sticky, black mud.

Locality: Sta. No. 234: “Nebr., Turkey Creek, 4 mi. S. of Pawnee City, Pawnee Co.”

Comments: From the Collection Record and the description on the photo, I have to assume that the photo above is of the sample site.



Photo number: #234TurkeyCreek2

Lat/Long: 40.0433, -96.1500

Comments: There is nothing in the 1940 photo to orient an attempt to reshoot the image. Assuming that the photos were taken of the same area, the stream has physically changed a lot since 1940. Much of Turkey Creek and several tributaries were channelized decades ago and bed degradation of many feet has occurred. This can be seen at the Pawnee City Park where a portion of the original channel survives on the west edge of the park. The bottom of this channel is many feet higher than the current channel in the same area.



Photo number: 1940-58

Stream: Big Sandy Creek

County: Thayer County

Description on rear of photograph: "Dry bed of Big Sandy Creek, ½ mi. w of Belvidere, Thayer Co. Compare with photo taken May 30, 1939 when water was present. July 7, 1940."

Collection Record: not a sample site.

Locality: not a sample site.

Comments: We have no photos taken before 7 June 1939.



Photo number: IMG_2316 (2017_06_28)

Lat/Long: 40.2490, -97.5653

Comments: This is ½ mile west of Belvidere but the dense growth of woody vegetation makes it hard to see the stream.

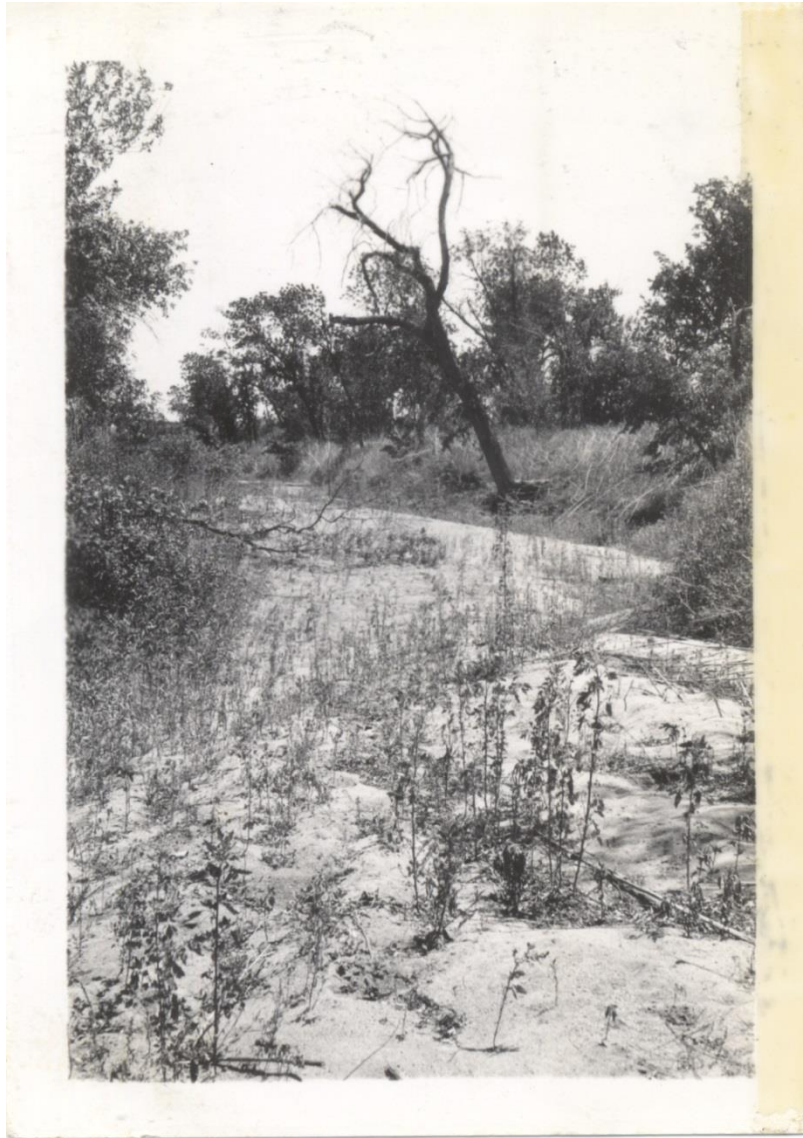


Photo number: 1940-59

Stream: Big Sandy Creek

County: Thayer County

Description on rear of photograph: "Dry bed of Big Sandy Creek, 1 mi. W of Belvidere, Thayer Co. July 7, 1940"

Collection Record: the stream was sampled on 30 May 1939. "Water very low, restricted to pools on outsides of creek bends. Pools about 100 feet long, 20 feet wide, deep only in spots."

Locality: Sta.No.148: "Nebr., Big Sandy Creek, 1 mi. W of Belvidere just south of Burlington track from Hastings, Thayer Co."

Comments: Same stream as 1940-58, just a half mile further west (upstream).



Photo number: IMG_2320 (2017_06_28)

Lat/Long: 40.2549, -97.5767

Comments: They listed the site as one mile west of Belvidere. Well, that is on Hiway 81 so why didn't they say the site was at the Hiway 81 bridge? I found a copy of a 1940 Nebraska road map on the Nebraska Department of Roads website which shows that Hiway 81 was paved at this location. It is now a four-lane divided highway and the bridge in the photo is new. While the stream appears to have a lot of water, it is actually flowing little more than a trickle between these pools. This fits with the description of the stream in 1939.



Photo number: 1940-62

Stream: Little Blue River

County: Jefferson County

Description on rear of photograph: "Little Blue River, ½ mile west of Steele City, Jefferson Co., July 9, 1940. Collection 246 taken here."

Collection Record: "Even at this point, the Little Blue is a sandier, faster, cleaner stream than the Big Blue."

Locality: Sta.No. 246: "Nebr., Little Blue R., 1/2mi. W. of Steele City, Jefferson Co."



Photo number: IMG_2306 (2017_06_28)

Lat/Long: 40.0380, -97.0391

Comments: View upstream from the Steele City bridge. Not a whole lot of change over the years. It is interesting that Raymond Johnson chose to take a photo in the upstream direction because the downstream is a lot more interesting (see below). This is the only place in Nebraska that I have seen a wall of bedrock exposed along a stream. In the photo above, it is hidden by the vegetation on the left bank. On a side note, the bridge here is a somewhat scary iron truss that may have been here when they visited the site in 1940.





Photo number: 1940-64

Stream: Republican River

County: Webster County

Description on rear of photograph: "Republican River east of Inavale, Webster Co. July 16, 1940."

Collection Record: "Stream still shows effects of 1935 flood by flowing in new channel, quicksand abundant, and large round stones in frequent patches in bottom. Many braided channels and cut-off pools caused by low water. Most of water coming from sewage water of upstream towns, and spring-creeks on north shore. See field notes for transition of stream character in last 25 years." [Field Notes unavailable or lost.]

Locality: Site 251: "Republican R., 2mi. E. of Inavale, Webster Co."

Comments: An aerial photo of this location (next page) shows an abandoned channel to the north along the highway. It is possible that this is the one referred to in the Collection Record.



Photo number: #251RepublicanRiver

Lat/Long: 40.0842, -98.6125

Comments: It looks like the hill in the background might be the same as the 1940 photo from a different angle. 63 years if flood control has enabled the trees to encroach on the channel which would make it difficult to duplicate photo exactly.





Photo number: 1940-65

Stream: Elm Creek

County: Webster County

Description on rear of photograph: "Elm Creek just north of Amboy Mills, or Lester as shown on road map. Above mill dam. July 15, 1940."

Collection Record: not a sample site.

Locality: not a sample site.

Comments: The image at right is from a 1900 Webster County plat book showing the mill site. Note that the mill was not on the stream proper but that a channel had been dug to divert water into a pond and mill race.

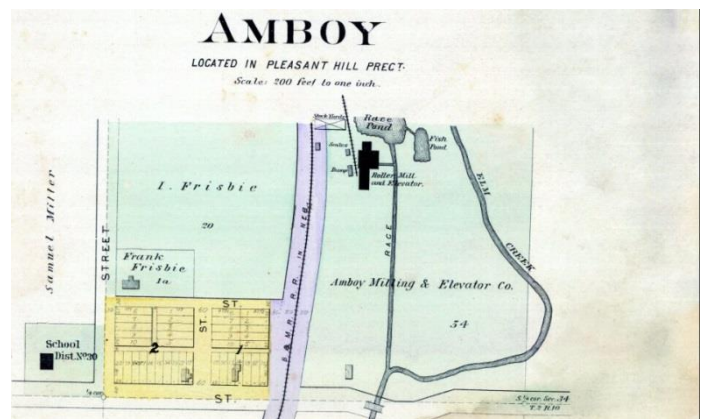




Photo number: IMG_2194 (2017_05_04)

Lat/Long: 40.0891, -98.4356

Comments: It is going to be impossible to redo the 1940 photograph. Looking north from the highway, at the left edge of this photo is the Amboy Mill while Amboy and the railroad are just to the left (west) of this. The trees at the right edge of the photo show the location of Elm Creek. The 1900 and 1923 plat maps show a pond on Elm Creek north of Amboy and west of the county road (see map in lower right). From the pond is a canal following the railroad leading to another pond just north of the mill. From here a mill race flowed alongside the mill and re-entered Elm Creek at the right edge of the above photo.

All traces of the pond and race have disappeared under the plow but, on an aerial photo, remnants of the canal appear to be visible in the trees in the distance. The plat map shows a railroad crossing the “upper” pond and, since the Johnson photo shows no railroad, photo 1940-65 must be of the “lower” pond. This lower pond is now in a cornfield.

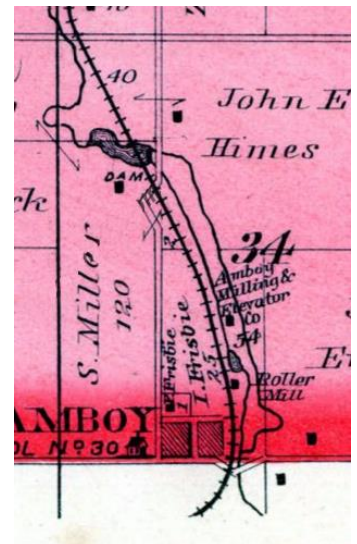




Photo number: 1940-66

Stream: Elm Creek

County: Webster County

Description on rear of photograph: "Elm Creek about 4 miles north of Amboy Mills, Webster Co. July 15, 1940."

Collection Record: "Stream seined near headwaters, where it is good trout stream, year 'round. Rich in aquatic flora and fauna. About western-most stream of its type in So. Nebr. Carpiodes, Hybognathus, Pimephales were seined from lower half-mile of stretch examined"

Locality: Sta.No. 250: "Nebr. Elm Creek, 4 mi. N of Lester, Webster Co. (Lester often named Amboy Mills.)"



Photo number: #250ElmCreek

Lat/Long: 40.1192, -98.4444

Comments: Without any landmarks, it is almost impossible to find the exact 1940 photo location. The notes from 1940 state that a “half-mile” stretch of stream was examined. The area is heavily wooded with abundant riparian vegetation in both photos. Also, the water appears to be quite clear in both photos.



Photo number: 1940-77

Stream: Driftwood Creek

County: Hitchcock County

Description on rear of photograph: "Driftwood Creek, south of Culbertson, Hitchcock County. Stagnant pools. July 19, 1940."

Collection Record: This site was not sampled for fishes.

Locality: Not a sample site.

Comments: The 1940 Nebraska road map shows that this is a highway. That bridge does not look much like a highway bridge but, in 1940 there were four types of highway in Nebraska. "Pavement", "Gravel", "Maintained earth grade" and "Designated but not maintained". This road was a "maintained earth grade" which means it was a dirt road that occasionally was touched up by a road grader.



Photo number: IMG_2233 (2017_06_13)

Lat/Long: 40.0932, -100.8144

Comments: The original description “south of Culbertson” is not terribly clear on where the photo was taken. It must have been on the “maintained earth grade” that was Hiway 17 in 1940. It is possible that, when the road was paved, it may have been re-aligned too.

In any case, this is a view of the creek at the Hiway 17 bridge south of Culbertson. The creek was flowing little more than a trickle below this turbid pool. Overall, the two photos are quite similar. Heavily wooded with a deeply entrenched stream with little flow.



Photo number: 1940-78

Stream: Republican River

County: Hitchcock County

Description on rear of photograph: "Dry bed of Republican River at Culbertson. July 19, 1940."

Collection Record: not a sample site.

Locality: not a sample site.

Comments: Broad, dry channel of a river. Note that in the center background are several grain elevators standing high above the trees. There was a large flood in the Republican River valley in 1935. We might be looking at a channel that was scoured out by that flood.



Photo number: IMG_2232 (2017_06_13)

Lat/Long: 40.2199, -100.8377

Comments: The river has radically changed since 1940. We are standing on the bridge looking to the northeast towards the location of the grain elevators visible in the distance in the 1940 photo. The heavy growth of trees in the old river channel make a duplicate photo almost impossible. The aerial photo at lower right shows the current Republican River is the thin blue line flowing along the northern edge of the historical river channel. The wooded area in the photos shows the 1940 river channel. Below left is another photo taken from a position south of the river. The tiny arrow points to the grain silos that replaced the original wooden grain elevator.





Photo number: 1940-79

Stream: Arikaree River

County: Dundy County

Description on rear of photograph: "Paul seining in Arikaree Creek west of Haigler. Water temperature 103°, air temperature 118°. July 19, 1940."

Collection Record: "This river flooded one week ago, now reduced to mere trickle. Fish concentrated in holes under bridge of Hiway 34, and when frightened go scooting out into the shallows upstream, easily visible. *Platygobio* found dead, *Noturus* too. Perhaps washed down or stranded in flood. Water too hot, most fish showing signs of distress."

Locality: Sta.No.265: "Nebr, Arikaree River, 1 mi. NW of Haigler, Dundy Co."



Photo number: IMG_2228 (2017-06-13)

Lat/Long: 40.0296, -101.9677

Comments: The two photos show a much different stream. Perhaps the 1940 flood scoured out the channel. The stream now is a series of pools backed up by small beaver dams. The banks are heavily vegetated with lots of willows. The water is clear but pretty well choked with filamentous algae.



Photo number: 1940-84

Stream: South Platte River

County: Deuel County

Description on rear of photograph: "South Platte River at Big Springs, Deuel County. July 21, 1940."

Collection Record: Not a sample site but there was a sample site upstream of this. "Only an occasional spring or seep keeps water flowing and cool. Stream nearly choked with algae, and thick mat of it forming on bottom. Seined complete in effort to find *Fundulus* south of Platte."

Locality: Sample location at Sta.No.266: "Nebr., South Platte River, 2 mi. NE of Colorado line. Deuel County."



Photo number: IMG_2409 (2017_07_13)

Lat/Long: 41.0551, -102.0731

Comments: The Platte River is a dynamic stream (i.e. the channel is constantly changing). But, it appears to be very similar to the 1939 version of the same area. Not much algae now and a lot more water (but this varies with season and year).



Photo number: 1940-101

Stream: Beaver Creek

County: Wheeler County

Description on rear of photograph: "Beaver Creek 6 miles north of Barlett, Wheeler Co. August 4, 1940. Pool covered with dense mat of duckweed."

Collection Record: "Once a fair-sized stream, flowing eastward from the Sandhills, Beaver Creek now has had its channel straightened, and is a non-flowing piece of water comprised of isolated pools in a vegetation-filled bed. According to residents nearby, no water has flowed there for at least two years."

Locality: Sta.No.289: "Nebr., Beaver Creek, 6 mi. N. of Bartlett, Wheeler Co."

Comments: The site was sampled a second time on 24 August 1941. "Stream seined as a check on welfare of relict populations found last year (#289). More water in tiny channel this year than last, but still not flowing. Species list will certainly be different."



Photo number: IMG_3644 (2007_08_02)

Lat/Long: 41.9794, -98.5477

Comments: Beaver Creek now has a defined channel with flowing water. It is beginning to recover from channelization with the creation of new meanders.

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