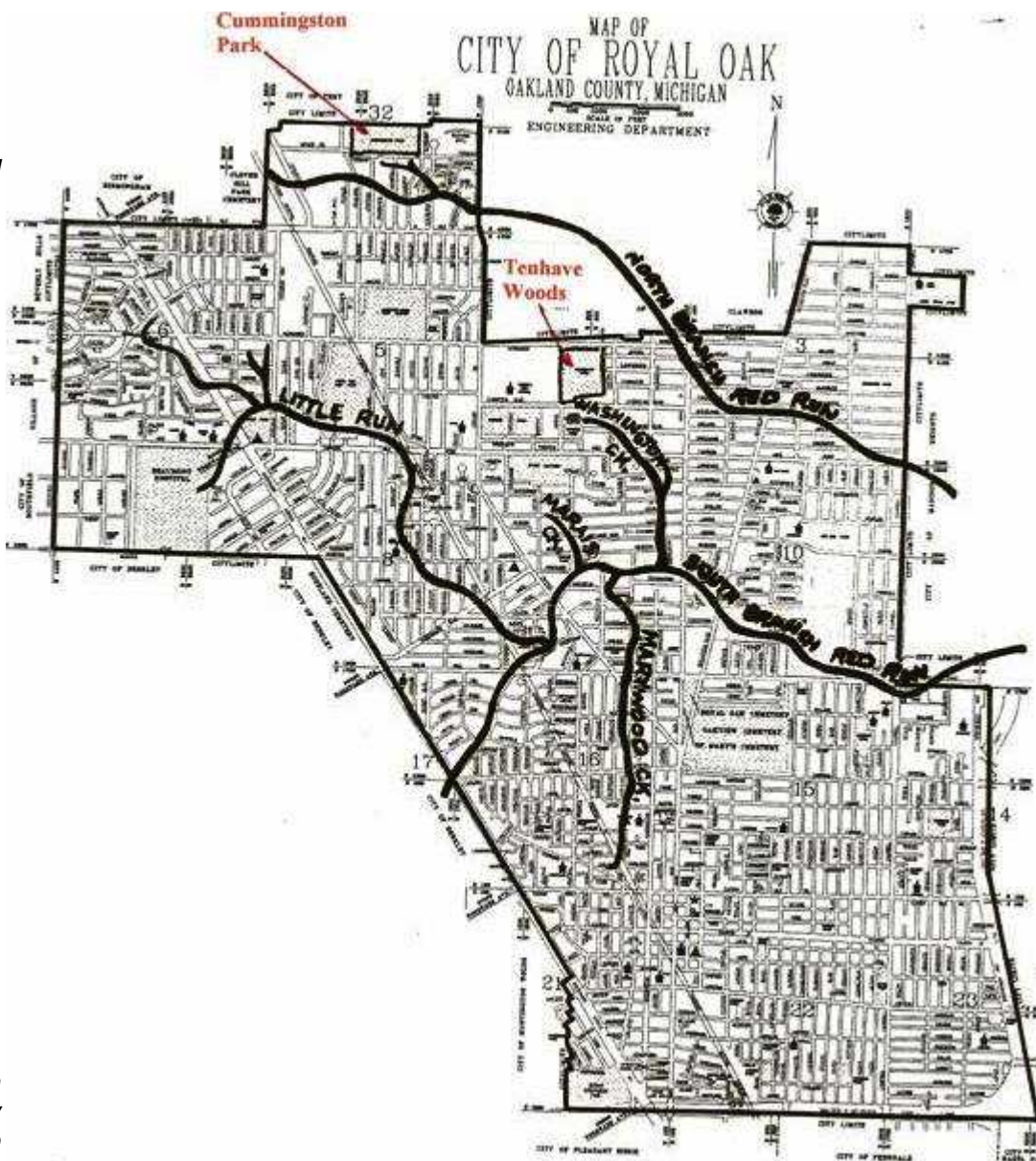


A Run Ran Through It Red Run, the Ghost River of Royal Oak Bob Muller

In fully developed urban areas, there may be hidden signs of what the land was like before the building of homes and businesses. A ghost image of rivers and creeks, long dry; can still be seen running through the grid pattern of roads and streets. Royal Oak has been a community for almost two hundred years. By the time it became a city in 1921, large areas were already filled with homes on small lots. This early development had turned Red Run, the small river within this community, into a drain. With no environmental thoughts or laws, Red Run's south branch was buried in the late 1920's along with the north branch in the 1960's. Both became part of the storm and sanitary drain system for the fast growing northern suburbs. With a little imagination and research, what Red Run looked like and what lived there can still be seen.

Red Run Drain, or Red Run Creek if you are thinking historically, is the name this waterway is usually given. This is incorrect. "Run" is a word commonly used in the Mid-Atlantic States to describe small rivers. Here in the Midwest, this definition seems to be rarely used and the population no longer understands its meaning. Red Run is a complete name and does not need the word creek added. Even the state highway department can't get it right. Around the 128-mile marker on I-75, you find a sign for Brent Run Creek and only three miles north one for Pine Run. Michigan has several thousand creeks, but only about fifteen runs, which are scattered across the state. About half of these runs occur between the cities of Monroe and Saginaw. To the north of Royal Oak, the towns of Birch Run, Pine Run and Rattle Run are found and to the southwest is Willow Run Airport. All are named after local runs (*Ings*). It is likely that settlers from the Mid-Atlantic States are responsible for some of Michigan's "creeks" being called runs.

Finding the path taken by Red Run, as it flowed through this city is not difficult. Survey maps from the nineteenth century show Red Run's main channels and tributaries (*Atlas of Oakland County, Mich. 141*). Most of Royal Oak's development occurred before the common use of bulldozers. To change the grade of the land, men with shovels and wheelbarrows were used. Because the work was so labor intensive, very little was done. Therefore, the U.S. topographical maps of the area still show many of the old watercourses. With these maps and careful observations of the land, most of the large streambeds can be located. Red Run was divided into a north and south branch. The origins of the north branch are lost due to the Grand Trunk Railroad grade north of 14 Mile Road. What can be deduced from the topographical maps and old Tax Parcel maps is that it flowed down Parmenter Drive and then crossed Crooks Road into the city of Clawson. It then crossed 14 Mile Road between Crooks Road and Main Street. Continuing on, it crossed Main Street in the vicinity of Realtors Park and exited Royal Oak around the intersection of 13 Mile and Campbell (*Birmingham Quadrangle & 1916 Troy Township Tax Parcel Ownership Map*). The north branch merged



with the south branch in Madison Heights to form Red Run's main channel (*Warren Quadrangle*). On the north branch just south of 14 Mile Road, there was a water-powered sawmill built by James G. Johnson in 1825. It was reported to have been able to cut 2,000 feet of lumber per day during the spring (*Crossman 49*). Daniel McMahon, who lived on Elmhurst in the early 1960s, remembers the north branch. "It flowed where Parmenter Drive is today. We caught fish and crawfish in it. I never saw tadpoles in it; the current was too fast for them. I don't know what kind of fish they were, we called them all minnows back then." He went on to describe the creek as 4-5 feet wide and at the most 18-20 inches deep. It must have already been canalized, as he mentioned that it had steep deep banks. Apparently nothing lived in the Run past a plating company at 14 Mile Road and Crooks. The run was buried in a six-foot drain tile about 1967-1968; this was the end of free flowing water in Royal Oak (*McMahon*).

Red Run's south branch entered Royal Oak crossing Woodward just north of Catalpa and then followed Vinsetta, which meanders along the old channel. At this point, Vinsetta was a flat flood plain. Today you can still see its old concrete bridges crossing the grassy boulevard where Red Run once flowed. Continuing down Vinsetta, the flood plain slowly turned into a ravine that now has houses built into its sides. From there, it ran through a deep ravine in Wagner Park then through the country club that bears its name. It exited Royal Oak at Twelve Mile Road and Campbell (*Birmingham Quadrangle*). Prior to entering Royal Oak, the area is too flat for topographical maps to be of use. According to Walter Muller, a long time resident of the area, "It started in a swamp near Nine Mile Road then crossed Ten Mile Road at Webbers Greenhouse (now the Pineville subdivision). It then ran through Rackham Golf Course, Huntington Woods and Berkley" (*Muller*). These were the routes of the main courses of Red Run.

The small tributaries leave less of a mark on the land and topographical maps. Therefore, it takes more effort to locate the old streambeds. There were four main tributaries, three on the north side and one on the south. The longest tributary named the Little Run, started in what is now Northwood shopping center (*Penney and Lance 269*). It crossed Woodward and can still be seen as a small ditch winding through Memorial Park. This ditch is the only part of the waterway within Royal Oak that still regularly holds water. It passed through where Royal Oak Golf Course is now and crossed 13 Mile Road, west of the Grand Trunk Railroad tracks. Bill Newman remembers standing on the corner of Maplewood and Bonnieview throwing rocks into the creek in 1930. Bill also knew of a photo, showing the development of the area, with sidewalks in place and the Little Run flowing between them (*Newman*). With this information and careful observations, you can see where the Little Run crossed Webster as well as an old creek bed in the schoolyard behind Jane Adams. The topographical map then clearly shows Little Run joining the South branch where Laurome Drive enters Vinsetta. The Little Run is the only tributary that a name can be found for. The other three tributaries have been given names in this paper for clarity, but these names are not based on historical records. The shortest tributary, "Marais Creek," ran only a few blocks from Royal through a depression in Marais Park to Vinsetta. The third tributary, "Washington Creek," started in back of where the Royal Oak Senior/Community Center now stands. It crossed Thirteen Mile Road around Gwen Court and wound its way to Washington Avenue, where it intersected the north side of Vinsetta (*Birmingham quadrangle*). It is easy to follow this streambed, since every place it would have crossed an east-west street, there remains a valley. There was a large cranberry bog between Woodward Ave. and the railroad along Eleven Mile Road (*Historical Tour Map of Royal Oak, Michigan*). This bog was probably the beginning of the only tributary, "Marywood Creek," that was on Red Run's south side. It flowed behind Dondero High School, up Marywood Drive, and through a wide ditch in Waterworks Park before entering what was Red Run (*Royal Oak Quadrangle*). This completes the physical path of Red Run and its main tributaries within Royal Oak. (*see fig. 1*).

This information lets us visualize the path of the Run and its tributaries, but what would Red Run have looked like? Red Run was a major tributary of the Clinton River; so looking at the remaining tributaries may provide some clues. Paint Creek, which flows through downtown Rochester, is a good example. It is 10-20 feet wide and has clear cool water flowing through flood planes and deep ravines. The banks are heavily forested and the bottom varies from mud to sand or gravel. The water depth changes from a few inches over the gravel to several feet deep over the softer substrates. Many small streams run into Paint Creek, most from large swamps or cold bogs. This description probably provides the best guess as to what Red Run looked like.

Long time residents of Royal Oak will be familiar with the pond and windmill that can be seen off Main Street just north of Twelve Mile Road. What they may not know is that this pond is the only natural water source left in the city (*Perkins 78*). Originally, a small stream flowed along Aqua Court feeding this pond. During high water in the spring there was a small stream that flowed out of this pond into Red Run. This still occurs, although now it drops through a sewer grate into the buried Run below. Fish lived in the pond until a few years ago when it seems that a winterkill eliminated them. Snapping turtles and bullfrogs can be found in the pond, so some aquatic life still lives in Royal Oak (*Gabler*).

With the loss of Red Run, many animals that depended on a permanent water source disappeared. Ducks, herons and kingfishers would have been among the birds living along the Run. Just north of Royal Oak, the Big Beaver drain flows through Troy, undoubtedly named for one of its past residents. Beaver, muskrats and other aquatic mammals would have been found here. An abundance of turtles, frogs, crawfish and aquatic insects were common. A review of fish collecting records at the University of Michigan and DNR Clinton River assessment shows that 85 species (this includes non-natives) of fishes have been found in the upper Clinton River system (*Bailey; Francis*). The author's own collecting in the Clinton River system has produced one fish not listed by U of M or the DNR sampling, the blackstripe killifishes. This brings the count to 86 species in

20 families that are or were found in the upper Clinton River (see table 1). Only one written record of fish in Royal Oak could be found. It is a story of children swimming in Red Run while their father fished. The children let his stringer of fish go as a joke and it washed down stream where he stepped on the bullheads with his bare feet (Perkins 192-193). I was able to interview two people that remember the Run in Royal Oak and one that lives along the uncovered portion today. Wallace Gabler remembers carp and suckers in the Run, and also hearing from family members that there were smelt runs before it was covered over. (Gabler). Jim Ellison remembers fishing with his grandfather on the banks of the South Branch at Iroquois and Vinsetta for Chubs in 1926. Jim also recalls that the run was about 5 to 6 feet wide at this point (Ellison). Steve Guc, whose backyard backs up to Red Run just north of 15 Mile Road in Sterling Heights, has seen many longnose gar in the Run (Guc). All of these fishes and many other aquatic animals permanently disappeared with the loss of Red Run.

The entire state of Michigan with all its diverse aquatic habitats supports 124 species of native fishes. It is amazing to know that over half of those fishes could have existed in these neighborhoods (Bailey). What were some of the 78 species of native fishes that could have lived here (Bailey; Francis)? The sunfish family, a unique North American, group was well represented. Large and small mouth bass, along with rock bass, green sunfish, longear sunfish, pumpkinseeds, bluegill and black crappie would have been found in deep holes. Several kinds of darters, the "hummingbirds" of North American fish, would definitely have lived in the Run. Rainbow and greenside darters would be found in the shallow gravel riffles. Fantail and Johnny darters would be seen where there were large rocks for them to breed under. In the muddy weedy areas there would be least and Iowa darters. The largest family of fish in North America, the minnows, is also the family with the largest number of species, nineteen, found in the Clinton River. Three of the minnows found in the Clinton River turn brilliant red during their spawning season, northern redbelly dace, rosyface shiner and redbelly shiner. Another unusual feature of our minnows is the development of tubercles during their spawning season. Tubercles are horny growths on the skin and fins of the fishes. Most minnows develop tubercles on their heads but the stoneroller has its complete body covered. Stonerollers are also nest builders; they pile up pebbles until they have a mound sometimes several feet in diameter and eight inches high. These nests would have been visible in the deep gravel riffles. Several other species of minnows and suckers also build nests and many other kinds of fishes will spawn over the top of these nests. The author has seen hundreds of rosyface shiners spawning on a white sucker nest. At the same time, several other species minnows and darters were swarming through the breeding frenzy getting an easy meal. Along the Run's edges, in the grass and roots hanging in the water, you would find brook sticklebacks. The male sticklebacks build nests of piece of plants and guard their eggs. In this same area five-inch long central mudminnow would be slowly stalking their prey. Mudminnows aren't minnows at all, but relatives of pike. Only four species of mudminnows exist, with three found in the United States. The Bullheads and their dwarf venomous relatives the madtoms would represent the catfishes. In sandy spots with a build up of detritus, buried and out of site would be the larva of our native lampreys. There they would remain for years filter feeding until they metamorphous into adults, spawn and die. Imagine walking to a park in Royal Oak and being able to fly fish for brook trout. Sadly nothing is left of the diversity of fishes that once lived here.

Red Run is gone forever; it has disappeared underground. The increased drainage has permanently lowered the water table, drying up the small streams and ponds of Royal Oak. Even though the dry streambeds remain, the most that will accumulate are a few puddles on a rainy day. If this city were developing now, instead of one hundred year ago, this small river system would be lined with parks. There would be places for fishing, for bird watching and for small boys to get wet and catch frogs. Instead, people drive their cars through the streets, never knowing what was here. Only a few, with eyes wide open, can see the ghost of the river and are able to look into the past.

Table 1

List of Fishes Found in the upper Clinton River

* Not native

| | |
|---|---|
| <p>Lampreys (Petromyzontidae)</p> <ol style="list-style-type: none"> 1. Chestnut Lamprey, <i>Ichthyomyzon castaneus</i> 2. Northern Brook Lamprey, <i>I. fossor</i> 3. Silver Lamprey, <i>I. unicuspis</i> 4. American Brook Lamprey, <i>Lampetra appenix</i> 5. Sea lamprey, <i>Petromyzon marinus</i>* <p>Gars (Lepisosteidae)</p> <ol style="list-style-type: none"> 6. Longnose Gar, <i>Lepisosteus osseus</i> <p>Bowfin (Amidae)</p> <ol style="list-style-type: none"> 7. Bowfin, <i>Amia calva</i> | <p>Mudminnows (Umbridae)</p> <ol style="list-style-type: none"> 52. Central Mudminnow, <i>Umbra limi</i> <p>Smelts (Osmeridae)</p> <ol style="list-style-type: none"> 53. Rainbow Smelt, <i>Osmerus mordax</i>* <p>Trouts (Salmonidae)</p> <ol style="list-style-type: none"> 54. Brook Trout, <i>Salvelinus fontinalis</i> 55. Rainbow Trout, <i>Oncorhynchus mykiss</i>* 56. Chinook Salmon, <i>O. tshawyscha</i>* 57. Brown Trout, <i>Salmo trutta</i>* |
|---|---|

Shads (Clupeidae)

8. Gizzard Shad, *Dorosoma cepedianum*

Minnnows (Cyprinidae)

9. Central Stoneroller, *Campostoma anomalum*
 10. Goldfish, *Carassius auratus**
 11. Carp, *Cyprinus carpio**
 12. Spottfin Shiner, *Cyprinella spiloptera*
 13. Brassy Minnow, *Hybognathus hankinsoni*
 14. Striped shiner, *Luxilus chrysocephalus*
 15. Common Shiner, *L. cornutus*
 16. Redfin Shiner, *Lythrurus umbratilis*
 17. Horneyhead Chub, *Nocomis biguttatus*
 18. River Chub, *N. micropogon*
 19. Gold Shiner, *Notemigonus crysoleucas*
 20. Pugnose Shiner, *Notropis anogenus*
 21. Emerald Shiner, *N. atherinodes*
 22. Bigmouth Shiner, *N. dorsalis*
 23. Blackchin Shiner, *N. heterodon*
 24. Blacknose Shiner, *N. heterolepis*
 25. Spottail Shiner, *N. hudsonius*
 26. Rosyface Shiner, *N. rubellus*
 27. Sand Shiner, *N. stamineus*
 28. Mimic Shiner, *N. volucellus*
 29. Northern Redbelly Dace, *Phoxinus eos*
 30. Bluntnose Minnow, *Pimephalus notatus*
 31. Fathead Minnow, *P. promelas*
 32. Blacknose Dace, *Rhinichthys atratulus*
 33. Creek Chub, *Semotilus atromaculatus*

Suckers (Catostomidae)

34. White Sucker, *Catostomus commersoni*
 35. Lake Chubsucker, *Erimyzon sucetta*
 36. Northern Hog Sucker, *Hypentelium nigricans*
 37. Spotted Sucker, *Minytrema melanops*
 38. Silver Redhorse, *Moxostoma anisurum*
 39. Black Redhorse, *M. duquesnei*
 40. Golden Redhorse, *M. erythrum*
 41. Shorthead Redhorse, *M. macrolepidotum*

Catfishes (Ictaluridae)

42. Black Bullhead, *Ameriurus melas*
 43. Yellow Bullhead, *A. natalis*
 44. Brown Bullhead, *A. nebulosus*
 45. Channel Catfish, *Ictalurus punctatus*
 46. Stonecat, *Noturus flavus*
 47. Tadpole Madtom, *N. gyrinus*
 48. Brindled Madtom, *N. miurus*
 49. Northern Madtom, *N. stigmosus*

Pikes (Esocidae)

50. Grass Pickerel, *Esox americanus vermiculatus*
 51. Northern Pike, *E. lucius*

Trout-Perch (Percopsidae)

58. Trout-Perch, *Percopsis omiscomaycus*

Killifishes (Fundulidae)

59. Banded Killifish, *Fundulus diaphanous*
 60. Blackstripe Killifish, *F. notatus*

Silversides (Atherinopsidae)

61. Brook Silverside, *Labidesthes sicculus*

Sticklebacks (Gasterosteidae)

62. Brook Stickleback, *Culaea inconstans*

Sculpins (Cottidae)

63. Mottled Sculpin, *Cottus bairdi*

Sunfishes (Centrarchidae)

64. Rock Bass, *Ambloplites rupestris*
 65. Green Sunfish, *Lepomis cyanellus*
 66. Pumpkinseed, *L. gibbosus*
 67. Bluegill, *L. macrochirus*
 68. Longear Sunfish, *L. megalotis*
 69. Smallmouth Bass, *Micropterus dolomieu*
 70. Largemouth Bass, *M. salmoides*
 71. White Crappie, *Pomoxis annularis*
 72. Black Crappie, *P. nigromaculatus*

Perches (Percidae)

73. Greenside Darter, *Etheostoma blennioides*
 74. Rainbow Darter, *E. caeruleum*
 75. Iowa Darter, *E. exile*
 76. Barred Fantail Darter, *E. f. flabellare*
 77. Least Darter, *E. microperca*
 78. Johnny Darter, *E. nigrum*
 79. Orangethroat Darter, *E. spectabile*
 80. Log Perch, *Percina caprodes*
 81. Channel Darter, *P. copelandi*
 82. Blackside Darter, *P. maculata*
 83. Yellow Perch, *Perca flavescens*
 84. Walleye, *Stizostedion vitreum*

Drum (Sciaehidae)

85. Freshwater Drum, *Aplodinotus grunniens*

Gobies (Gobiidae)

86. Round Goby, *Neogobius melanostomus**

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