

= West Creek (Pennsylvania) =

West Creek is a tributary of Fishing Creek , in Columbia County and Sullivan County , in Pennsylvania , in the United States . It is 9 @. @ 1 miles (14 @. @ 6 km) long and flows through Davidson Township in Sullivan County and Jackson Township , Sugarloaf Township , Benton Township , and Benton in Columbia County . The water temperature of the creek ranges from 0 ° C (32 ° F) to 25 ° C (77 ° F) . The discharge ranges from 0 to nearly 10 cubic meters per second . Rock formations in the watershed include the Trimmers Rock Formation , the Catskill Formation , and the Huntley Mountain Formation . The creek 's watershed has an area of 16 @. @ 6 square miles , most of which is agricultural , forested , or urban land . A small number of dams , mills , and schoolhouses were built on West Creek in the 19th and early 20th century . West Creek has the highest level of biodiversity of any stream in the upper Fishing Creek watershed .

= = Course = =

West Creek begins on Huckleberry Mountain in Davidson Township , Sullivan County . It flows east for several hundred feet before turning south @-@ southeast for several tenths of a mile , exiting Sullivan County and entering Jackson Township , Columbia County . It then turns south @-@ southwest for a short distance , reaching the base of Huckleberry Mountain and crossing Pennsylvania Route 118 , before southeast for a few miles in a valley , receiving one unnamed tributary from the left and another from the right . The creek then enters Sugarloaf Township and receives another unnamed tributary from the left and turns south . For the next few miles , it flows alongside West Creek Road and receives another unnamed tributary from the right . It then crosses Pennsylvania Route 239 and receives York Hollow , its first named tributary , from the right . The creek then turns southeast for several miles , flowing alongside Pennsylvania Route 239 and receiving another unnamed tributary from the left and entering Benton Township . It turns south for more than a mile , still flowing alongside Pennsylvania Route 239 and crossing it several times . The creek then exits its valley and turns south @-@ southwest , flowing along the edge of a plain . After several tenths of a mile , it receives Spencer Run , its second and final named tributary , from the right and then turns south for more than a mile , passing along the western border of Benton . The creek then turns south @-@ southeast and exits Benton . A few tenths of a mile further downstream , it reaches its confluence with Fishing Creek .

West Creek joins Fishing Creek 21 @. @ 72 miles (34 @. @ 95 km) upstream of its mouth .

= = Hydrology = =

The water temperature in West Creek in the summer can be as high as 25 ° C (77 ° F) , which is 3 ° Celsius (5 @. @ 4 ° Fahrenheit) higher than coldwater fish can tolerate . Between May 2010 and July 2011 , it ranged from below 0 ° C (32 ° F) in February and March 2011 to 25 ° C (77 ° F) in August 2010 .

Between May 2010 and July 2011 , the concentration of dissolved oxygen in West Creek ranged from slightly under eight milligrams per liter in May 2010 to nearly seventeen milligrams per liter in late January 2011 . This is well above the minimum required concentration of dissolved oxygen for optimal fish habitation .

West Creek is less affected by episodic acidification than most of the rest of the upper Fishing Creek watershed , with the exception of Coles Creek . The pH of West Creek is at its lowest in late winter and spring , when it is typically around 6 @. @ 3 . During the rest of the year , it is above 7 @. @ 0 . The entire pH range of the creek ranges from just over 6 @. @ 0 to 7 @. @ 2 or 7 @. @ 3 . The concentration of dissolved aluminum in West Creek is under 70 micrograms per liter , considerably less than the concentration needed to kill fish . The aluminum concentration is , in fact , usually approximately zero and is often under 40 micrograms per liter . However , early in 2011 , the concentration was observed twice to be nearly 60 micrograms per liter .

The discharge of West Creek is usually less than two cubic meters per second . However , it

sometimes is between two and five cubic meters per second and has occasionally been as high as nearly ten cubic meters per second . The conductance of the creek ranges from slightly over 40 to more than 60 micro @-@ siemens per centimeter .

= = Geography and geology = =

The elevation near the mouth of West Creek is 735 feet (224 m) above sea level . The elevation of the creek 's source is between 1 @, @ 780 and 1 @, @ 800 feet (540 and 550 m) above sea level .

The rock in the southern part of the watershed of West Creek is of the Trimmers Rock Formation . This consists of siltstone and shale and comes from the Devonian period . The northern part of the watershed has rock belonging to the Catskill Formation , which consists of sandstone and siltstone and also comes from the Devonian . The Huntley Mountain Formation can be found at the headwaters of the creek . This formation consists of sandstone and siltstone and comes from the Mississippian and Devonian periods .

= = Watershed = =

The watershed of West Creek has an area of 17 @. @ 2 square miles (45 km²) . The creek 's mouth is in the United States Geological Survey quadrangle of Benton . However , its source is in the quadrangle of Elk Grove .

There is significant agricultural activity done in the lower reaches of the watershed of West Creek and there are also some residential areas . Additionally , there are some agricultural lands in the upper reaches of the watershed . Much of the rest of the watershed is forested land . Some of the most downstream parts of the watershed are urban .

= = History and etymology = =

West Creek has been known by its current name since at least the late 1830s . The creek was entered into the Geographic Names Information System on August 2 , 1979 . Its identifier in the Geographic Names Information System is 1192054 .

In 1799 , a schoolhouse was constructed on West Creek near Benton . It was one of the first schoolhouses in the vicinity of Benton . During the 1864 elections , at least two Union soldiers were stationed on the creek , guarding the polling venues . A mill called the Thomas Mill was built on the creek in 1865 and remained operational in 1914 , when it was owned by N.B. Cole . In the late 1800s and early 1900s , there was a timber @-@ producing business on the creek , run by J. Harvey Creveling .

In 1881 , J. J. McHenry constructed a queen truss covered bridge over West Creek for \$ 348 @. @ 00 . The bridge was moved to South Branch Roaring Creek when it was sold to H. H. Knoebel in 1936 . A two @-@ span concrete tee beam bridge carrying Pennsylvania Route 239 was built over the creek in 1934 . It is 65 @. @ 9 feet (20 @. @ 1 m) long and is located 2 miles (3 @. @ 2 km) north of Benton . Another bridge of the same type , but with only a single , was built 3 @. @ 5 miles (5 @. @ 6 km) north of Benton in the same year . This bridge is 47 @. @ 9 feet (14 @. @ 6 m) long . A two @-@ span steel stringer / multi @-@ beam or girder bridge was constructed over the creek in Benton in 1951 . It is 81 @. @ 0 feet (24 @. @ 7 m) long and carries State Route 4030 . A bridge of the same time , was built 0 @. @ 2 miles (0 @. @ 32 km) north of Benton in 1958 . It is 65 @. @ 0 feet (19 @. @ 8 m) long and carries T @-@ 720 . A prestressed box beam or girders bridge carrying Pennsylvania Route 239 was built in 2004 . It is located 1 mile (1 @. @ 6 km) north of Benton and is 55 @. @ 1 feet (16 @. @ 8 m) long .

In 1914 , the Benton Water Supply Company constructed a dam on West Creek upstream of Benton . A ten @-@ acre private campground called the West Creek Gap Campgrounds was established at the headwaters of West Creek in 1979 by the wife of George Mikulski .

= = Biology = =

There are 41 macroinvertebrate taxa that have been observed in West Creek , more than have been observed in all of upper Fishing Creek . The number of macroinvertebrates per square meter in West Creek at the site WC1 (in the lower reaches of the creek) is nearly 900 , which is far higher than the number of macroinvertebrates per square meter in any other site except the site WC2 , in the middle reaches of the creek . Site WC2 has a macroinvertebrate density of 600 macroinvertebrates per square meter . Approximately 60 % of the taxa are Ephemeroptera (mayflies) , 10 % each are Plecoptera (stoneflies) , and approximately 5 % are Trichoptera (caddisflies) .

There are a total of eight species of wild fish in West Creek . Brook trout and brown trout both inhabit West Creek , although brook trout are slightly more common than brown trout , with nine brook trout and only seven brown trout being observed in a 2010 or 2011 electrofishing survey . Trout are more common upstream of the Pennsylvania Route 239 crossing of the creek than downstream of it . The most common fish in the creek are sculpin , blacknose dace , and cutlips minnows . In the aforementioned electrofishing survey , a total of 81 sculpin , 34 black @-@ nosed dace , and 17 cutlips minnows were observed . Other species of fish in the watershed include johnny darter , white sucker , and creek chub .

In 2011 , the habitat quality of upper Fishing Creek and its tributaries were rated on a scale of 1 to 200 (with a higher rating indicating better habitability) by Point Park University and the Fishing Creek Sportsmans ' Association . The headwaters of West Creek were given a rating of 192 . The rating is significantly lower further downstream , with it being 175 downstream of the crossing of Pennsylvania Route 239 . The rating averages 138 where the creek is in Benton and the lowest rating is 115 . This rating occurred downstream of the Market Street bridge in Benton .

The Shannon Diversity Index , which is commonly used to measure the diversity of biological communities , of West Creek is slightly over 2 @.@ 5 . The Hilsenhoff Biotic Index , a measure of pollution @-@ tolerant macroinvertebrates , on much of the creek ranges from 1 @.@ 6 to 2 @.@ 5 , although an area of the creek near Benton ranges from 2 @.@ 6 to 3 @.@ 5 . There is little riparian buffering along the sections of West Creek where agriculture is done .