

The City of Montevallo's Shoal Creek Park covers an area of approximately 167 acres, divided into two unequally-sized tracts ("Northwest" and "Southeast") by Hwy 119. The Northwest tract consists of approximately 136 acres and the Southeast tract consists of the remaining 31 acres. Shoal Creek cuts across the eastern part of the Northwest tract and flows along the southwestern margin of the Southeast tract, over a combined distance of approximately 1,550 yards. The highest elevation in the park (ca. 525') occurs in the upland region that is located in the Northwest tract and the lowest elevation (ca. 410') occurs at stream level in the southeast corner of the Southeast tract (Figure 1.)

Beneath the soils of the park are two different bedrocks. Underlying the lowlands is a bedrock composed of interbedded layers of limestone (primary component,) shale and chert (secondary components.) The bedrock is a part of a geological unit called the "Conasauga Formation" that was created during the middle part of the Cambrian Period (ca. 530 million YBP.) In lower elevations of the park the Conasauga bedrock is covered by alluvium composed of sands, gravels, clays, and various-sized fragments of the underlying bedrock. The alluvium layer here has been forming during the most recent geological period (i.e. the Quaternary,) beginning ca. 1.6 million YBP (Figure 2.) The Conasauga Formation is visible at various locations within the park.



Figure 1. Topography of Shoal Creek Park

The upland portion of the park is underlain by a second type of bedrock that is composed of interbedded layers of mudstone (primary) and shale, siltstone, sandstone, dolomite, and limestone (minor) and is referred to as the "Rome Formation." This bedrock was formed during the lower part of the Cambrian Period, ca. 540 million YBP (Figure 2.) The best location for observing the Rome Formation is in the forested northwest corner of the Northwest Tract where it has been exposed by erosion and forms a small waterfall in the ephemeral stream that flows southerly into Shoal Creek. (Figure 4.) Having been derived from the limestone-containing bedrocks, the soils in the park generally have a slightly basic (alkaline) pH due to high levels of calcium carbonate.

The Shoal Creek Park ecosystem is variously composed of grassland, oak-hickory forest, successional pine, and wetland habitats. Much of the land within the park boundary has been used for agricultural purposes for the last 193 years. The 167 acres that comprise today's Shoal Creek Park are a

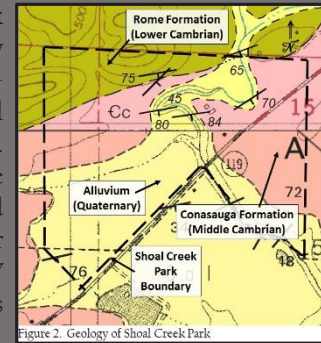


Figure 2. Geology of Shoal Creek Park

remnant of an original 800-acre settlement that began in 1824. During settlement, parts of the land were cleared and developed for growing cotton, orchards, vineyards, and cane. In more recent times, much of the land that now comprises Shoal Creek Park had been used to grow fodder (grasses and clovers) and for the grazing of cattle. Approximately 105 acres (63%) of park grounds are grasslands. The grassland flora is rich in species of grasses, sedges, and clovers, many of which are non-natives. The largest piece of oak-hickory forest is an 18 acre parcel located in the northwest corner (i.e. uplands) of the Northwest tract. This habitat is populated by several species of oaks (e.g. White, Southern Red, Rock, Chestnut, and Bluff,) hickories (e.g. Shagbark, Pignut, and Mockernut) and assorted other tree species (e.g. Red Mulberry, Sweetgum, and Ironwood.) The wetlands are largely restricted to the banks of Shoal Creek and its ephemeral tributaries and is the habitat of various trees (e.g. Water Elm, River Birch), shrubs (e.g. Brookside Alder), and herbs (e.g. River Cane, Water Willow, Watercress, River Oats.) Numerous basic/alkaline soil-loving plants are found in the park including Eastern Red Cedar, Chinquapin Oak, Green Comet and Green Milkweeds, Pink Stonecrop, Carolina Buckthorn, Twist Spine Prickly Pear, and Prairie Tea.

# WELCOME TO The City of Montevallo's SHOAL CREEK PARK

Along these paths, from early spring until late autumn, you will find numerous native wildflower species and likely encounter the multitude of animals that feed and forage upon them. Red Buckeye, White Crownbeard, Giant Ironweed, and Bear's Foot are just a few of the botanical beauties you may observe, undoubtedly haloed by the likes of the Eastern Swallowtail, Pearl Crescent, and Gulf Fritillaria.



Please feel free to take as many pictures as you want and to capture as many memories as you can, but please leave no trace of your visit (besides your footprints) and always remember that there is ABSOLUTELY no collecting of any materials, alive or dead, permitted within the park.



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Scan this QR code to download a more detailed guide to the natural history of the City of Montevallo's Shoal Creek Park



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# THE NATURE OF SHOAL CREEK PARK



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21.

- 1. Gulf Fritillaria
- 2. Resurrection ferns
- 3. Conasauga formation
- 4. Common Box Turtle

- 5. Eastern Swallowtail Butterfly
- 6. Atamasco lilies
- 7. Easter Swallowtail caterpillar
- 8. Eastern Blue Phlox
- 9. Virginia Spring Beauties
- 10. Red Buckeye
- 11. Mistflower

- 12. Twist Spine Prickly Pear
- 13. Yellow Fawn Lily
- 14. Rue Anemone
- 15. Loblolly Pine
- 16. Green Anole
- 17. Halloween Pennant
- 18. Cottonmouth

- 19. Bear's Foot
- 20. Rome formation
- 21. Widow Skimmer