

Calvert Prong Flattened Musk Turtle Survey

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- Calvert Prong is a tributary of Blackburn Fork in Locust Fork drainage
- Lower 1 km of Calvert Prong flows through Fountain Property
- Three steep seriously eroded banks in need of stabilization

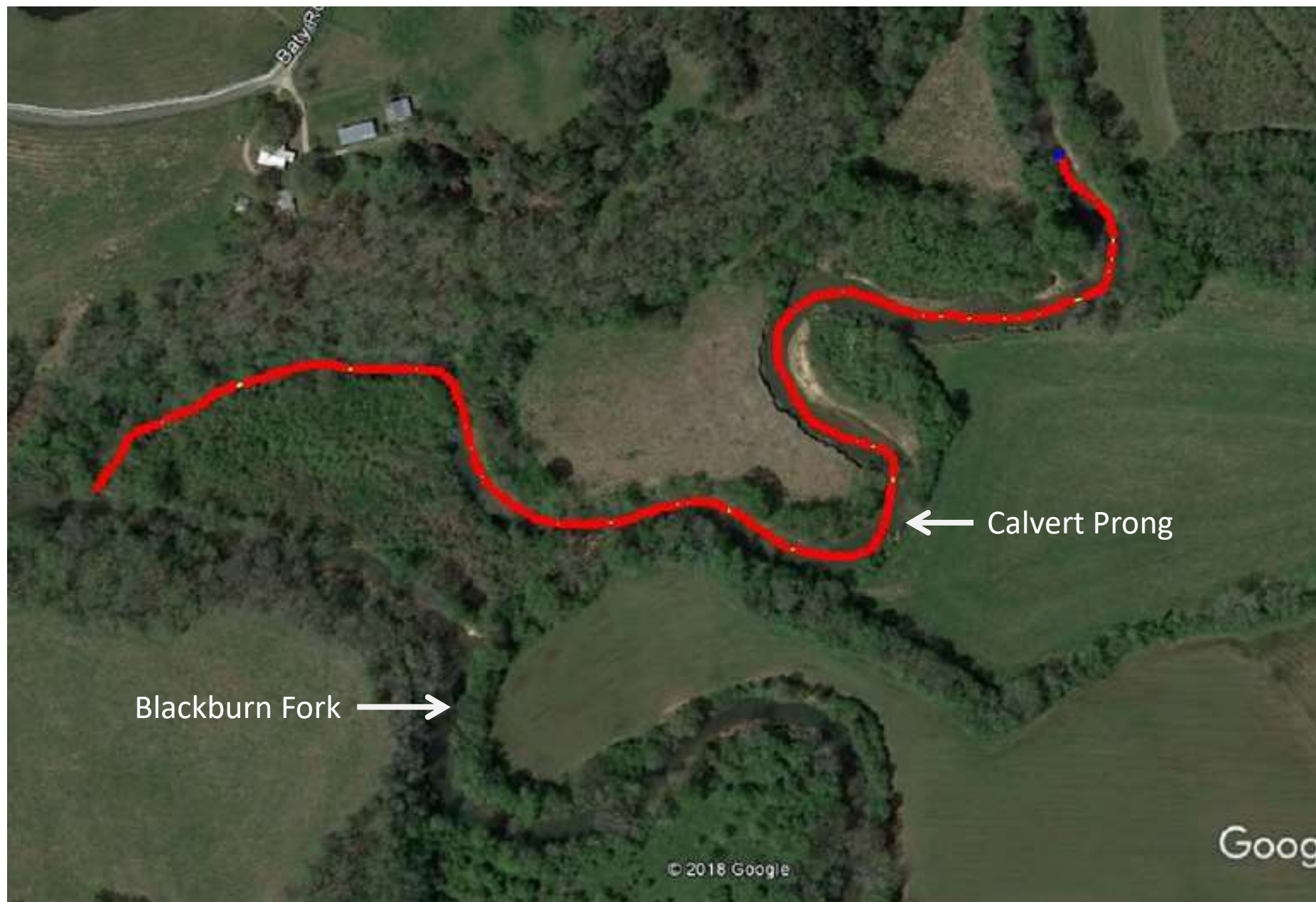




Need

Prior to restoration actions survey needed for Flattened
Musk Turtle to ensure species will not be impacted





- Peak of activity is May – September
- Survey conducted 19-20 July 2019
- 30 traps set at ca. 10 - 15 meter interval
- Trap sets and checks followed USFWS Flattened Musk Turtle trapping protocol





- Three diurnal wading surveys conducted while setting and checking traps
- One nocturnal wading survey conducted
- Total 7.5 person-hours of survey time and cumulative 2.8 km survey distance

During surveys searched for turtles and evidence of turtles



- No Flattened Musk Turtles were captured or observed
- Studies on Flattened Musk Turtles in Bankhead National Forest (Jenkins, 2019) and Blackburn Fork suggest that the efforts utilized in this survey of Calvert Prong would have a detection probability of approximately 0.93 if Flattened Musk Turtles were present
- High confidence that turtles are not present in this section of Calvert Prong.

- Four species of turtles documented
- Gulf Coast Spiny Softshell (*Apalone spinifer*)
- Alabama Map Turtle (*Graptemys pulchra*)
- Northern Map Turtle (*Graptemys geographica*)
- Pond Slider (*Trachemys scripta*)

Gulf Coast Spiny Softshell



Alabama Map Turtle



Northern Map Turtle



Pond Slider



- In-stream substrate habitat appeared poor for the Flattened Musk Turtle based on studies of habitat selection (Schnuelle, 1997; Jenkins, 2019)
- Gravel, sand and silt covered much of the stream bottom
- In-stream habitat could be improved in the short-term if large boulder rip-rap (>1 m diameter, preferably some slab rocks) was placed in-stream at the bank-edge
- Aquatic snails are an important dietary item for the Flattened Musk Turtle and snails were present, but in extremely low numbers

- Flattened Musk Turtle unlikely to inhabit the lower 1 km of Calvert Prong due to heavy siltation and sedimentation of the stream, and perhaps other upstream factors.
- Physical habitat for the turtle is present, though largely diminished due to sedimentation.
- Important food item of aquatic snails is in very low abundance.
- Flattened Musk Turtles, historically, should have occupied this stream stretch