

**Executive Summary of Aquatic Organism Passage Surveys on the
Long Cane District, South Carolina 2019**



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Road-stream crossing improvement projects are important for providing a safe and efficient transportation system, resilience to changing climate, and benefits to threatened, endangered, and other species. Determining the condition and passage status of all crossings in a project area is the first step in developing an effective improvement project. From 2005 - 2009, the Southern Region Regional Office partnered with Forest Service Southern Research Station (SRS) Center for Aquatic Technology Transfer (CATT) to survey road-stream crossings on several national forests using the Coffman (2005) modification of the National Inventory and Assessment Protocol (Clarkin et al. 2003). After 2009, several national forests in the Southern and Eastern Regions continued to work with the CATT to complete aquatic organism passage (AOP) crossing surveys in high priority project areas. In 2016, the Southeast Aquatic Resources Partnership (SARP) contacted the CATT to pilot a road-stream crossing survey approach using a modification of the North Atlantic Aquatic Connectivity Collaborative (NAACC) protocol (Jackson and Abbott 2015) with a mobile data collection platform that would also allow citizen scientists to participate in crossing assessments. In 2017, SARP released their adaptation of NAACC (Graham and NAACC 2017) along with a mobile data form, and the CATT partnered to test the SARP crossing survey approach (Krause et al. 2017, Fair et al. 2018). After this successful test period, the CATT continues to use the SARP approach on AOP projects.

The Sumter National Forest partnered with the USDA Forest Service, Southern Research Station, CATT to survey road-stream crossings on the Long Cane District in 2019. The CATT worked with Keith Whalen (Forest Fisheries Biologist) to identify crossing locations for assessment and SARP to assess AOP status. The CATT deployed two 2-person teams for 4 field days (4/24/19 – 4/27/19) and inventoried 116 crossings (comprised of 58 culverts, 31 bridges, 2 vented fords, and 25 crossings that were either inaccessible, natural ford, no crossing present, no upstream channel present, or crossing had been removed) (Figure 1).

SARP is compiling barrier data, including dams and road crossing structures, from the Southeast into the Comprehensive Southeast Aquatic Barrier Inventory, an online ArcGIS map database which is a part of their Southeast Aquatic Connectivity Program (<https://arcg.is/0aSamC>). The database and map include all crossing data collected by CATT since 2005, as well as crossing information collected by other organizations, and will house all new data collected using the SARP stream crossing survey application. Data can be extracted from the online map and database and analyzed to aid in local management decisions and prioritization of future road-stream crossing improvement projects.

For access to the Comprehensive Southeast Aquatic Barrier Inventory map, contact Kat Hoenke at (kat@southeastaquatics.net, 484 354-6453). Additional project questions may be directed to Craig Roghair (croghair@fs.fed.us, 540 230-8126).

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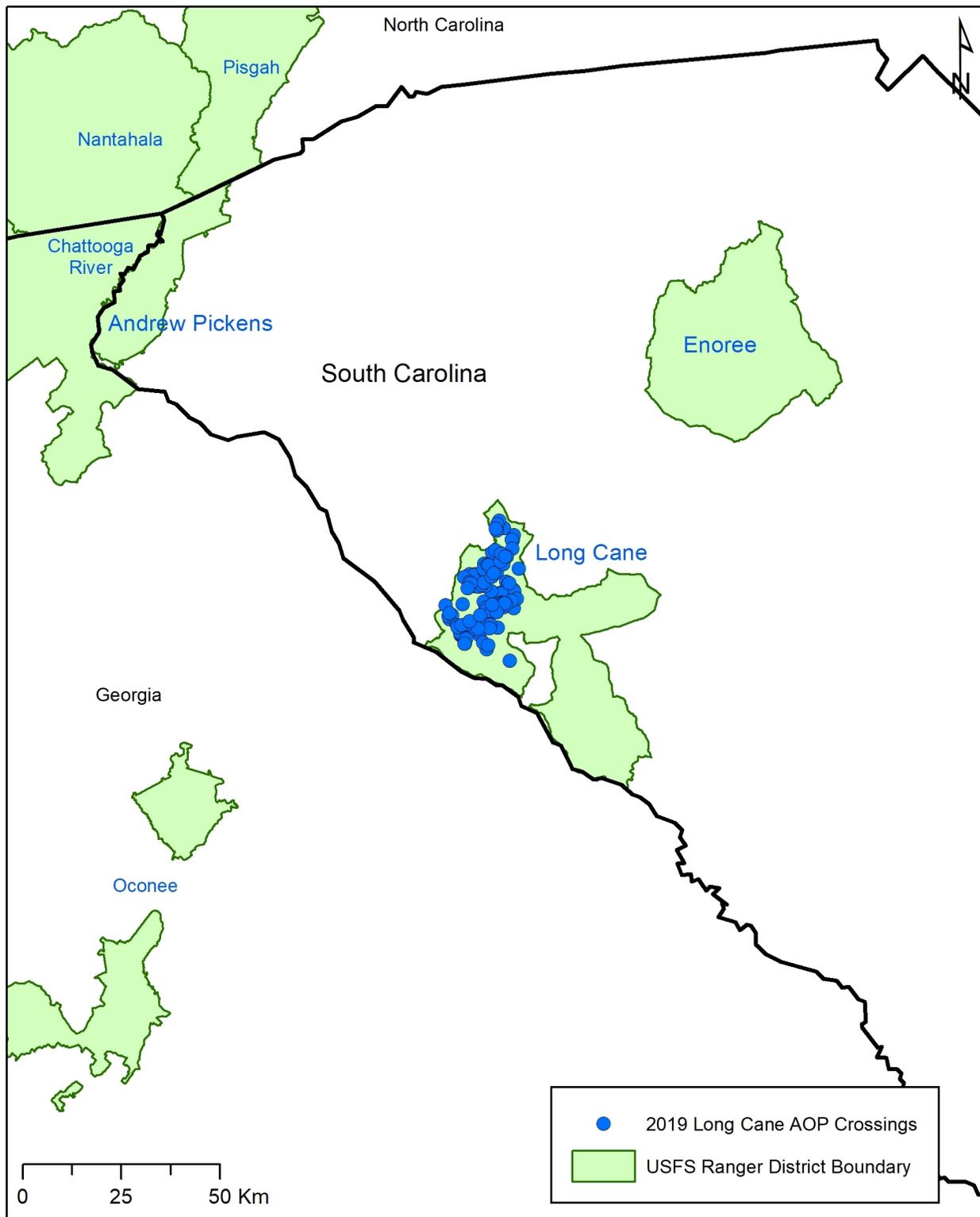


Figure 1. Crossings visited on the Long Cane district in South Carolina.