

**Executive Summary of Aquatic Organism Passage Surveys on the Long Cane
& Andrew Pickens District, South Carolina, and the Chattooga River & Blue
Ridge Districts, Georgia 2017**



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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 (Table 1) 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 crossing surveys in high priority project areas. In 2016, the Southeast Aquatic Resources Partnership (SARP) contacted 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 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 Sumter National Forest (SNF), Chattahoochee-Oconee National Forest (CONF), SARP, and the CATT partnered to test the SARP crossing survey approach on 40 crossings in the Long Cane & Andrew Pickens Districts of South Carolina, and 116 crossings in the Chattooga River and Blue Ridge Districts of Georgia (Figure 1, Table 2).

Kat Hoenke and Jessica Graham, SARP Spatial Ecologists, trained CATT field teams to use the SARP stream crossing survey approach and associated mobile data forms on October 16, 2017. A CATT field team completed crossing assessments on SNF and CONF from November 3-17, 2017. Field teams recorded data on an ArcGIS Survey123 form designed by SARP for iPads. The data were then uploaded to an online ArcGIS map managed by SARP.

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/ne0LD>). 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).

References

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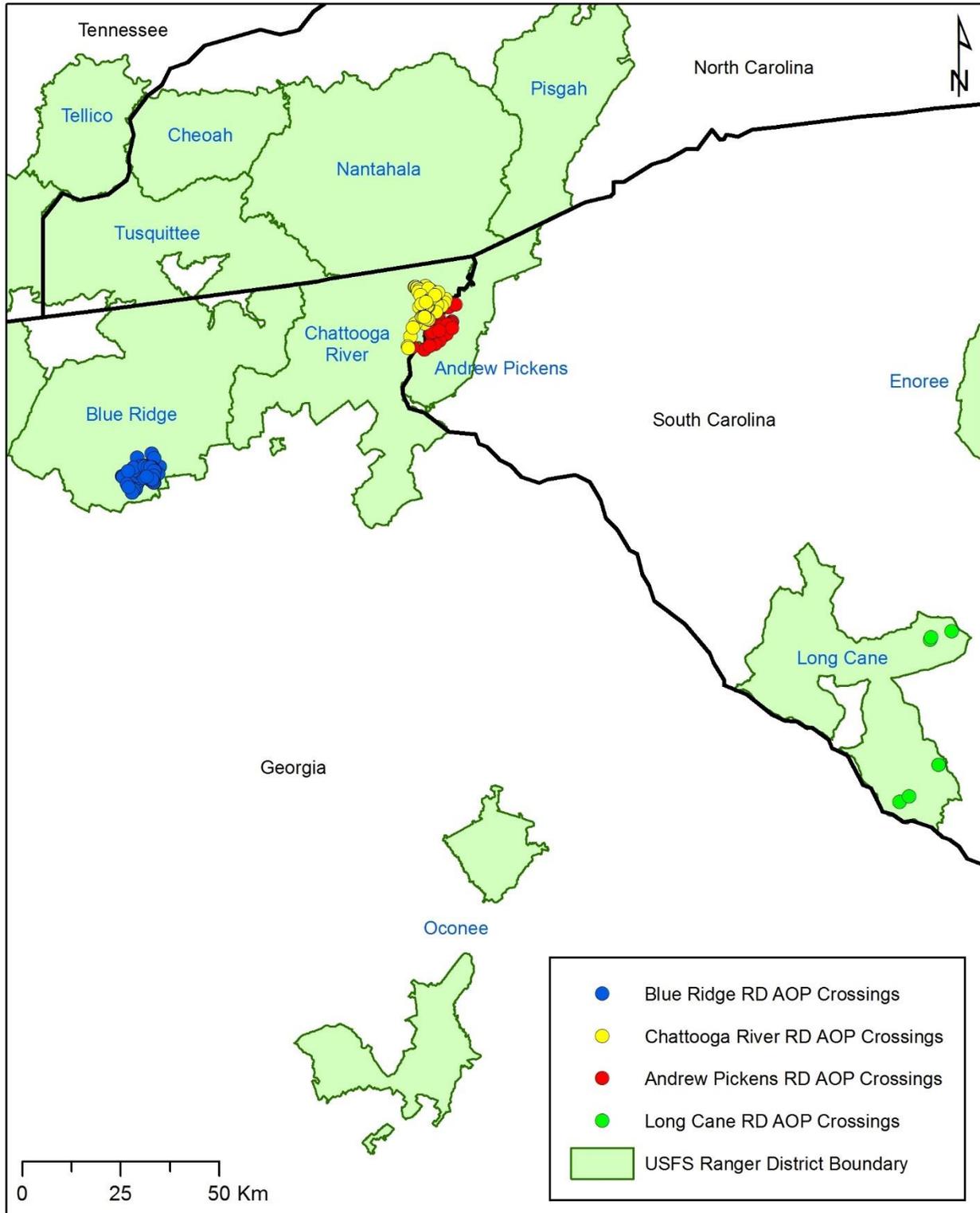


Figure 1. Crossings visited on the Long Cane and Andrew Pickens districts in South Carolina, and the Blue Ridge and Chattooga River Districts in Georgia.

Table 1. Road-stream crossing surveys completed by CATT in the Southern Region between 2005 and 2009. See https://www.srs.fs.usda.gov/catt/pdf/aop/gis_coverletter_2010_ro.pdf for additional details.

	2005		2006		2007		2008		2009		Total	
	Visited	Surveyed	Visited	Surveyed	Visited	Surveyed	Visited	Surveyed	Visited	Surveyed	Visited	Surveyed
Cherokee National Forest	0	0	111	18	0	0	0	0	0	0	111	18
Daniel Boone National Forest	172	70	0	0	156	41	0	0	555	75	883	186
Francis Marion-Sumter National Forest	0	0	107	77	0	0	0	0	210	35	317	112
George Washington-Jefferson National Forest	237	89	62	44	4	4	0	0	38	24	341	161
Kisatchie National Forest	0	0	0	0	170	39	558	23	0	0	728	62
Land Between the Lakes National Forest	0	0	0	0	232	35	0	0	0	0	232	35
National Forests in Alabama	125	62	77	45	0	0	0	0	0	0	202	107
National Forests in Florida	0	0	14	13	0	0	0	0	0	0	14	13
National Forests in Georgia	0	0	5	5	0	0	0	0	124	63	129	68
National Forests in Mississippi	0	0	80	53	0	0	0	0	268	50	348	103
National Forests in North Carolina	0	0	0	0	32	18	245	38	0	0	277	56
National Forests in Texas	0	0	109	80	25	21	68	5	0	0	202	106
Ouachita National Forest	0	0	0	0	0	0	163	47	0	0	163	47
Ozark-St. Francis National Forest	534	25	0	0	369	85	352	10	591	24	1846	144
Total	1068	246	565	335	988	243	1386	123	1786	271	5793	1218

Table 2. Summary of 2017 aquatic organism passage surveys on the Chattahoochee-Oconee & Sumter National Forests.

District and State	# of Crossings Surveyed	# of Days to Complete	Crew Size
Blue Ridge, GA	53	3	2
Chattooga River, GA	63	4	2
Andrew Pickens, SC	34	2	2
Long Cane, SC	6	1	2
<i>Total</i>	<i>156</i>	<i>10</i>	