

Nine-banded Armadillo (*Dasypus novemcinctus*) in Spartanburg County, South Carolina

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Prior to the 19th century, the distribution range of the nine-banded armadillo (*Dasypus novemcinctus*) included only South America, Central America, and Mexico. Its distribution range has been expanding to the north, having first been spotted by John James Audubon in the Lower Rio Grande Valley of Texas in 1849 (Audubon and Bachman, 1854). Since then, it has continued a rapid range expansion to the north and east across the United States (Eichler and Gaudin, 2011; Taulman and Robbins, 2014).

Platt and Snyder (1995) speculated that armadillos first expanded their range into southwestern South Carolina by the mid-1980s and that viable populations existed by 1995. Taulman and Robbins (2014) estimated that the breeding range of armadillos reached the northern part of upstate South Carolina by 2013. They reported four sightings of armadillos in the Upstate from 2003 to mid-2013. Taulman and Robbins (2014) also predicted that armadillos will continue to move north until they reach the January mean minimum temperature isopleth of -8°C, although other factors will likely play a role. Although armadillo sightings are rare in the Upstate, there were three unverified sightings in January 2017 near the town of Six Mile in Pickens County (Strickland, 2017). Wilson et al. (2016) also reported armadillos in upstate South Carolina.

As part of a separate research project, we photographed an armadillo in Spartanburg County, SC on 30 May, 2017 (Fig. 1) with a wildlife camera (Bushnell Trophycam HD, Bushnell Outdoor Products, Overland Park, Kansas). The armadillo was photographed at night (00:53) in a bottomland mixed hardwood forest approximately 40 m from the Tyger

River. The site (34° 45'14.57"N, 81° 55'26.78"W) consisted of sweetgum (*Liquidambar styraciflua*), American beech (*Fagus grandifolia*), tuliptree (*Liriodendron tulipifera*), and eastern redcedar (*Juniperus virginiana*). The site had a mostly open understory, with patches of sparkleberry (*Vaccinium arboreum*), American holly (*Ilex opaca*), and eastern prickly pear (*Opuntia mesacantha*). The soil was sandy with large boulders of gneiss.

Using ArcGIS 10 (Esri, Redlands, CA) we quantified the habitat types within a 5 ha area centered on the location of the armadillo photograph (Fig. 2). Although armadillos are highly variable in home range size, 5 ha is within the range encountered in the southeastern United States (Loughry and McDonough, 2013). We found that habitats within the 5 ha area were predominantly mixed deciduous forest (78.2%) and freshwater (18.8%). Prior research has suggested that armadillos prefer bottomland hardwood forests (McDonough et al. 2000, McDonough and Loughry, 2005); however, some research suggests they exhibit little habitat preference (Gammons et al. 2009). Riparian habitats may serve as conduits for the range expansion of armadillos (Humphrey, 1974, Platt and Snyder, 1995), perhaps accounting for our observation of this individual along the Tyger River.

In the coming decades, armadillos will likely continue their northward range expansion across South Carolina and the surrounding states. We encourage others to report armadillo sightings so that researchers can effectively track their range expansion.



Figure 1. Nine-banded armadillo (*Dasypus novemcinctus*) photographed in Spartanburg County, South Carolina on 30 May, 2017.

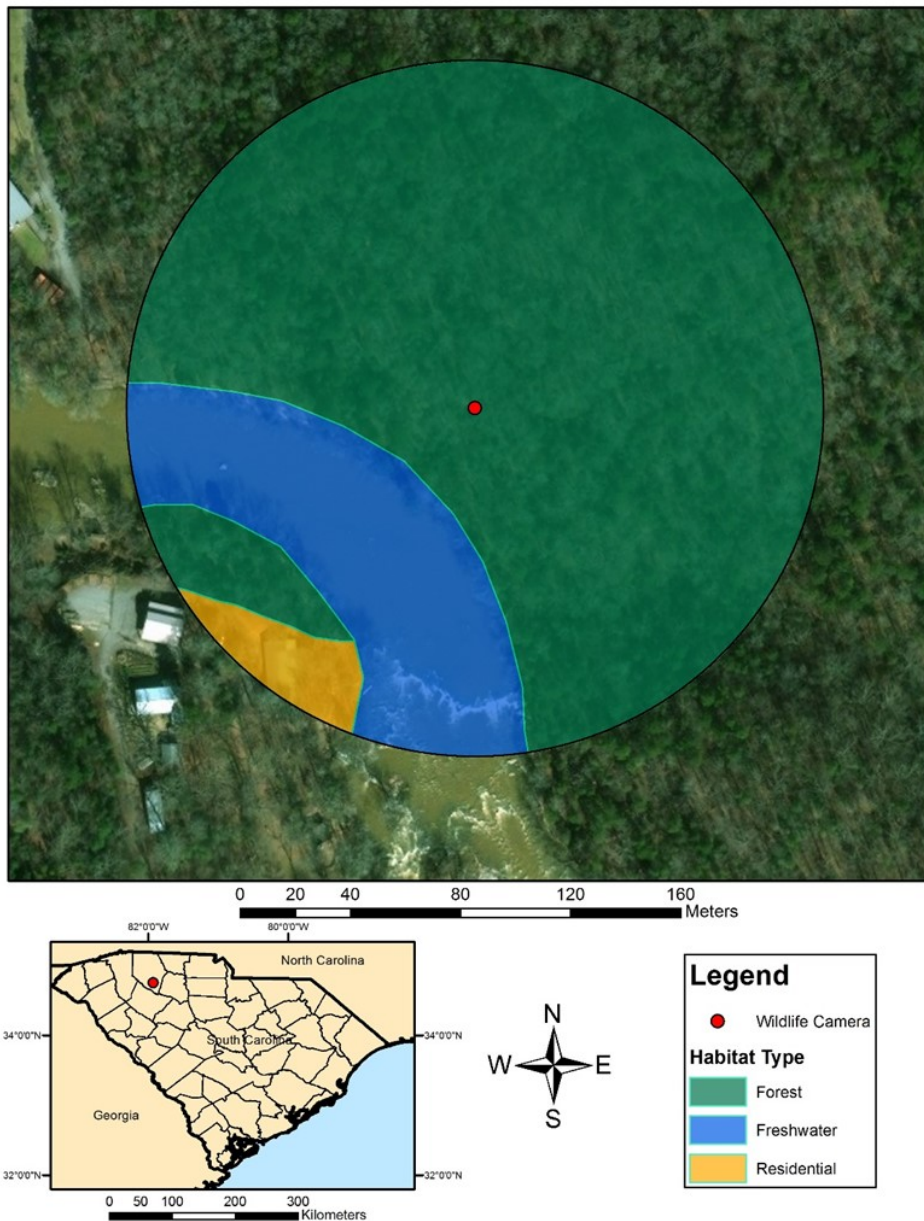


Figure 2. Habitat types within a 5 ha area surrounding the location of a nine-banded armadillo (*Dasyus novemcinctus*) photographed in Spartanburg County, South Carolina.

Notes and References

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