

Tracking Bobcats on Kiawah Island

A personal look at 12 years of bobcat research

by Jim Jordan

I first set foot on Kiawah Island in September 1996, fresh out of college and pursuing a Master of Science degree through the University of Georgia (UGA). Even though I grew up only two and a half hours up the interstate in Columbia, I had never visited Kiawah. My first few days here were eye-opening to say the least. We walked and drove the Island for several days and nights and saw deer, raccoons, foxes, and even a bobcat. Growing up in a family of avid outdoorsmen, these types of sightings were not unusual for me when I was out in the woods, but I was amazed to find these same animals literally living in people's backyards.

My first hands-on experiences with capturing and tracking bobcats began in 2000, when the Town of Kiawah Island (TOKI) and UGA initiated our first bobcat telemetry study. J.C. Griffin, a UGA graduate student, and I learned a lot about trapping bobcats that winter and were able to capture and radiocollar 14 different bobcats. We replicated the 2000 study in 2004 with the help of a new graduate student, Shane Roberts, and were able to capture and collar 16 bobcats that year.

In each of these first two studies, we relied on VHF (very high frequency) triangulation to locate individual cats three to four times per week. VHF triangulation is very labor intensive, and it often takes 30 minutes or more to obtain a single estimated location for one bobcat. Each of the first two studies involved tracking animals for one full year, and we were typically able to obtain approximately 155 locations per bobcat during that time.

In late 2006, I approached the Conservancy about funding for a pilot project to investigate the feasibility of using GPS (global positioning system) collars to more intensively track bobcats on the Island. Though GPS technology has been around for



many years, collar companies had only just begun to design collars small enough for bobcats. The details were quickly worked out, and we were once again trapping bobcats, this time with help from a new assistant, Eric Rice. Eric and I deployed five GPS collars during early 2007, and the data quickly started pouring in. Each collar we deployed obtained more than 2,000 locations during the three-month pilot study, all without Eric or myself having to leave the office. It quickly became apparent that GPS was the future.

In 2008, Eric and I put GPS collars (from a new manufacturer) on eight additional bobcats. As with any new technology, we did have some collar problems and have continued to work through those issues to develop the ideal collar for our needs. In 2009, with the help of a new assistant, Aaron Given, we have fitted ten additional bobcats with GPS collars, including two from a new collar company (the third company we have used to date). Data continues to pour in and we have collected more than 25,000 individual GPS locations of bobcats over the last three years.

Let's back up a minute and talk about exactly how one goes about trapping a bobcat. It's actually quite a challenging and time-consuming



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endeavor. We employ two different strategies. The first utilizes a cage trap with two compartments. The rear compartment holds a small rooster whose job is to entice a bobcat to enter the outer cage. The rooster is fed and watered daily and kept safe from the bobcat in its compartment. The trap is placed in a likely area, the bottom of the trap is covered in dirt, vegetation is placed around the trap to camouflage it, and then the door is opened and the trap is set. Cage traps are checked daily, but it may be weeks before a bobcat ventures into the trap, if at all. Often, we employ a second trapping technique, the foothold trap, adjacent to or near a cage trap. Bobcats are often attracted to the crowing of the rooster but simply refuse to walk into the trap. The footholds are custom-designed for bobcats with a number of special modifications that allow them to work effectively but minimize strain and potential injury to the bobcat. These special traps are considered humane, rarely inflict injury, and are approved for use on endangered species.

Deploying footholds to capture bobcats is an art in itself and requires considerable experience to do so. The bobcat must be enticed to step directly on a buried

pan that is roughly two square inches in size to set off the trap. To put it in perspective, the home range size of a typical bobcat is almost ten billion square inches. Talk about a challenge. One of my favorite and most effective trapping setups is called the “dirt hole”. The first step is to locate a dirt mound or fallen log in an area frequently traveled by bobcats. The next step is to dig a hole into the ground at the base of the log or mound to simulate a rodent burrow. The foothold is buried with the pan situated so that a bobcat will step on the pan with its right front foot as it looks at or sniffs the hole. To further increase the chances of a bobcat stepping on the pan, small sticks and leaves are placed around the hole leaving an inconspicuous bare spot directly above the pan. This encourages the bobcat to step in the bare spot in their desire to minimize noise as they approach the hole. Bobcats are extremely cautious animals, are very aware of their surroundings, and can be extremely difficult to capture. I consider bobcat trapping a great challenge, and it forces me to “think like a bobcat” each and every time I set a trap. When it all works out perfectly, and a bobcat is captured, it is a very rewarding experience.

Over the last nine years, we have captured and monitored more than 50 bobcats on Kiawah Island.



Town of Kiawah Island

Each of them has been unique in its own way, but some truly stand out and are worthy of mentioning specifically. One of my favorite bobcats of all time was simply known as 933. We first captured him in 2000 near Oyster Rake Drive and recaptured him again in 2004 near Town Hall. He was a very social bobcat and was often seen around Town Hall. Some afternoons, he would suddenly appear in the parking lot, sitting on his haunches, watching us unload the truck after a day of work. He would often watch us for several minutes before casually sauntering into the woods. Other days, he would walk up the steps of Town Hall and look in the front doors. One of my fondest memories of 933 involved a call that a bobcat was eating Koi (expensive goldfish) out of an ornamental pond near the front doors of the Kiawah Island Inn. When Shane and I arrived on the scene, there were 30 or so folks watching 933 as he lay on the side of the pond, in broad daylight, scooping up one fish after another. He finally finished his fish lunch and slowly eased off into the underbrush,

providing a great story for many Island visitors to tell when they got back home. He was a truly unique cat that we were fortunate to track for more than five years before he was killed by an automobile in 2005.

Capturing and tracking bobcats over the last ten years has been an incredible experience for me. I have had, and continue to have, great support from all Island entities in my endeavors and am particularly grateful to the Town of Kiawah Island for allowing me the time and resources to do this valuable work and to the Conservancy for providing funding over the last five-to-six years. The more I learn about bobcats here on Kiawah and around the country, the more I understand how incredibly unique and special it is that bobcats are still present in healthy numbers on Kiawah Island. I look forward to continuing to increase the knowledge about bobcats on our Island and to develop and implement strategies to keep them here for many years to come. 🌿



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