

## ***ANWR Lamar Unit Small Mammal Survey***

According to Donna McKinney, Hollis went to ANWR biologists Darrin Welchert and Chad Stinson and told them he was interested in doing field work at ANWR. He was told ANWR wanted a small-mammal study done at the Lamar Unit, so Hollis volunteered to do it. Hollis, Darrin, and Chad developed the protocol and the rest is history. The Aransas National Wildlife Refuge Lamar Unit Small Mammal Survey was inaugurated, and thus was born:

## ***Rat Patrol!***

By T J Fox, Certified Texas Master Naturalist

Photos by Donna McKinney, Certified Texas Master Naturalist

In early February 2005, Hollis McKinney asked me if I would be interested in assisting with a “small mammal survey” on ANWR’s Lamar unit, located just north of Rockport. It sounded interesting, so I said yes. After almost a year, I can truthfully declare, “There’s nothing quite like the smell of an excited rat in the morning.” Norway Rats tend to get excited when caught in a live trap. When they’re excited, their intestinal processes are affected and they defecate as extensively as possible. Not a pleasant experience. Thank goodness it only happens occasionally. The survey began with Hollis and Donna working with Darrin Welchert from ANWR. I joined in late February, Ron Outen assisted several times during the summer, and Ray Kirkwood joined the effort in mid-summer. Hollis led the effort until late 2005. Since then, Ray and I have kept the survey going.

That, however, is just part of the experience. As Ron Outen observed, “You bring me out into a place where I can step on a rattlesnake or cottonmouth, be swarmed by mosquitoes, and come in contact with black widow spiders. Most of the trees, bushes, and vines have thorns. AND you want me to fight my way through the marsh grass to catch rats?” Hollis and I agreed that seemed to sum it up. At some point, our project became “Rat Patrol.”

Let me describe the operation. Supplies needed include live-animal traps, surveyor’s flags, marking pins, and bait. Pick a likely area where small mammals should live. Measure off 300 meters in a reasonably straight line. Every 15 meters, plant a surveyor’s flag marked with a station number (1-20). At each station, place two of the traps.



Now you're ready to begin. The survey requires two consecutive days every 2 weeks. Take about 2 hours in the evening of the first day to bait the 80 traps on two of the four transects. Place the bait at the back of the trap and set the trap door. On the morning of the second day, inspect each trap. Transfer critters caught in the traps to a clear plastic jar so they can be identified. After identification, release the critters and leave all traps open and unbaited. At the next 2-day session 2 weeks later, bait and inspect the traps on the other two transects.

When we began the survey, bait consisted of 4x1-inch pieces of wax paper wrapped around a mixture of peanut butter and seeds. We have since changed the bait to seed only—the peanut butter was a fire-ant magnet! The survey has been expanded to include a 100-meter long "drift fence," a solid barrier consisting of an aluminum strip about a foot high. The fence has plastic buckets at either end and two traps on either side about mid-fence. The buckets are intended to trap critters moving along the fence. We've also added motion-sensitive cameras in several locations.



Anticipation is always high when you see a closed door. Weight (and smell) can give a clue to the contents. With Hollis in charge, identification was no problem. Ray and I have to consult the reference book on mammals of Texas quite often. Most commonly, we see White-footed mice, Northern pygmy mice, and Fulvous harvest mice. Occasionally we will find a Marsh rice rat, a Hispid cotton rat, a Southern plains woodrat, or the really smelly Norway rat. Our most unexpected capture was an immature Virginia Opossum. Our rarest find was a Least shrew, caught in the drift fence. On several occasions our survey has netted a big fat zero. Monday, January 31, 2006 was our most productive day—our traps contained 20 critters!



This is my first experience with a wildlife survey. My snake leggings remind me of the need for caution—we've caught and inspected two cottonmouths—and despite mosquito swarms, black widow spiders, and thorns, it has been a good experience.