Photo by Todd Steele

Rob Sawyer sets a sandhill crane decoy in a Matagorda County field ahead of a recent hunt in which birds taken were shared with scientists working to provide information that will improve crane management.

Research targets crane species

Researchers seek information on sandhills to learn about whoopers

By Shannon Tompkins | January 16, 2013 | Updated: January 16, 2013 10:28pm

Secreted in layout blinds just inside the edge of a small, grassy, sienna bean-cluttered island in the bare-dirt sea of a grain field, we waited.

A handful of gray decoys stood 20 yards or so away, just about where Rob Sawyer had, the day before, spotted a flock of a couple-dozen sandhill cranes feeding in the Matagorda County field. The ground showed the evidence — disturbed soil where the big birds had used their considerable toes and long, spike-like bills to grub shoots of tender vegetation and the round, finger-size holes where the cranes had jammed those long bills deep into the soft soil to probe for tubers and other subterranean fodder.

Wintering sandhills can be creatures of habit, traveling the same aerial pathway from nighttime roosts on shallow flooded wetlands to feeding areas on coastal

prairie fields and then to freshwater to slake their thirst. Still, sandhills are wild and wary birds, arguably much more suspicious of anything seemingly out of place or potentially threatening than any migratory game bird other than an adult snow goose.

But do it correctly — set up in the right spot, use realistic decoys, play the wind, hide well, and don't give the birds reason to suspect an ambush — and you just may get the chance to take one of North America's most challenging, interesting and ambrosian migratory game birds.

That opportunity was reason enough for Sawyer, Todd Steele and me to be hunkered in cover on a cold January morning, waiting for sandhills. And it's what draws as many as 5,000 or more Texas wingshooters afield each year in pursuit of members of a thriving and expanding sandhill crane population.

Tale of two species

The big birds, which nest from the north-central United States through central, western and Arctic Canada and into Alaska, have seen their numbers steadily grow over the past few decades, with the mid-continent population of sandhills estimated to be almost 600,000 birds, well over the species' population objective, as gauged by professional wildlife managers, of 350,000-450,000 cranes.

But North America's only other crane species is not doing nearly so well. And those other cranes — the endangered, emblematic whooping cranes — played a significant role in why we waited for the morning flight of sandhills.

We didn't wait long. About sunrise, a flock of a dozen or so sandhills lifted off their roost to the south of our hide and made their way into the north wind. The group spied our decoys and beat wings steadily but slowly toward them, eyeing the area for any sign of a threat.

Seeing none, they set their broad wings, lowered those long, thin legs and sailed toward landings beside their fake brethren.

With the birds hanging over the decoys, Sawyer and I rose and fired, and a pair of sandhills tumbled to earth.

We were thrilled with the two birds, and so was Sarah Hamer when we carried the sandhills into a huge barn on farmer Steve Heard's property near Francitas.

"You got two! That's great!" Hamer said with obvious enthusiasm.

Hamer, an assistant professor in the Veterinary Integrative Biosciences Department of Texas A&M University's College of Veterinary Medicine and Biomedical Sciences, stood among what Todd Steele aptly described as "something right out of General Hospital."

Tables holding all manner of medical equipment — microscopes, jars of formalin solution, scalpels, forceps, latex gloves, petri dishes, scales, rulers, calipers and other gear — were arranged. At two tables, veterinarians Miranda Bertram, a grad student at A&M, and Carolyn Hodo, an anatomic pathology resident, were dressed in hospital scrubs, working methodically at conducting detailed necropsies of a pair of sandhill cranes, a process taking close to two hours.

The scientists are part of a research project aimed at improving the odds of survival of whooping cranes by learning as much as possible about the health threats posed by parasites, viruses and toxins. And much of that knowledge will come from sandhill cranes.

"We use sandhills as surrogates for whooping cranes," said Gabe Hamer, clinical assistant professor in the entomology department of A&M's College of Veterinary Medicine and Biomedical Sciences and, along with his wife Sarah, one of the principal investigators in the research project.

Tracking parasites

Closely related, mid-continent sandhill cranes and the 300 or so wild whooping cranes share much of the same physiology, travel the same migration routes and spend time in the same habitat. It follows that whatever parasites or other potential disease-causing or health-impacting diseases affect one species could mirror those found in the other.

Part of the two-year research project, funded by the U.S. Fish and Wildlife Service, involves cataloging parasites and other potentially problematic agents found in whooping cranes.

Doing complete, in-depth physical examinations of whooping cranes is impossible. The bird has to be dead for such examination.

But researchers are hoping to gain considerable insight into whooping crane parasites by a much less invasive, if not exactly pleasant, tactic.

"We collect whooping crane feces," Gabe Hamer explained.

Researchers collect the whooping crane feces around freshwater ponds the endangered cranes use on the Aransas National Wildlife Refuge, where almost all of the wild whooping cranes winter.

Those feces contain evidence of some of the internal parasites the cranes carry and, because the leavings also hold DNA from the birds, can be used to tie the feces to individual whoopers.

Sandhill cranes also drink at the same freshwater ponds as the whoopers, and researchers can collect sandhill droppings from the ponds and compare findings from both species.

But much of the project revolves around gaining comprehensive insight into types and prevalence of parasites cranes host and any health impacts those parasites might have.

Those impacts can, occasionally, be fatal. But more often, parasites can indirectly impact bird populations by affecting a bird's overall health to the point the bird is not healthy enough to endure the physical and physiological stress of reproduction.

While the wild whooping crane population has grown from a low of fewer than 20 birds to 300, the population currently isn't growing at a rate some scientists say it should.

Could parasites play a role? Are there parasites that can have a population-level impact? If so, what are they? How prevalent are they? Where and how are they being transmitted? What health impacts do they have?

"There are a lot of questions," Gabe Hamer said. "What we find will guide future research."

Much of those findings will come from examination of sandhill cranes.

Cooperating with hunters

The research project aims to collect information through necropsies of at least 100 sandhill cranes donated by hunters. To accomplish that, they need cooperation of hunters in what can be a very logistics-intensive effort.

The research team has conducted two sandhill crane collections in Texas this year. The first was in the Panhandle in November. The second was arranged by the private Thunderbird Hunting Club, which leases and manages land in Jackson,

Matagorda and Wharton counties.

Hunters brought seven sand-hills to the research team.

The hunters didn't have to part with the spectacularly tasty breast meat of the cranes; researchers deftly removed the breast muscle for the hunters.

"The goal is to learn as much as we can about these birds and use that to improve their population and their future," Sarah Hamer said. "Hunters are helping us do that. We couldn't do this without them."