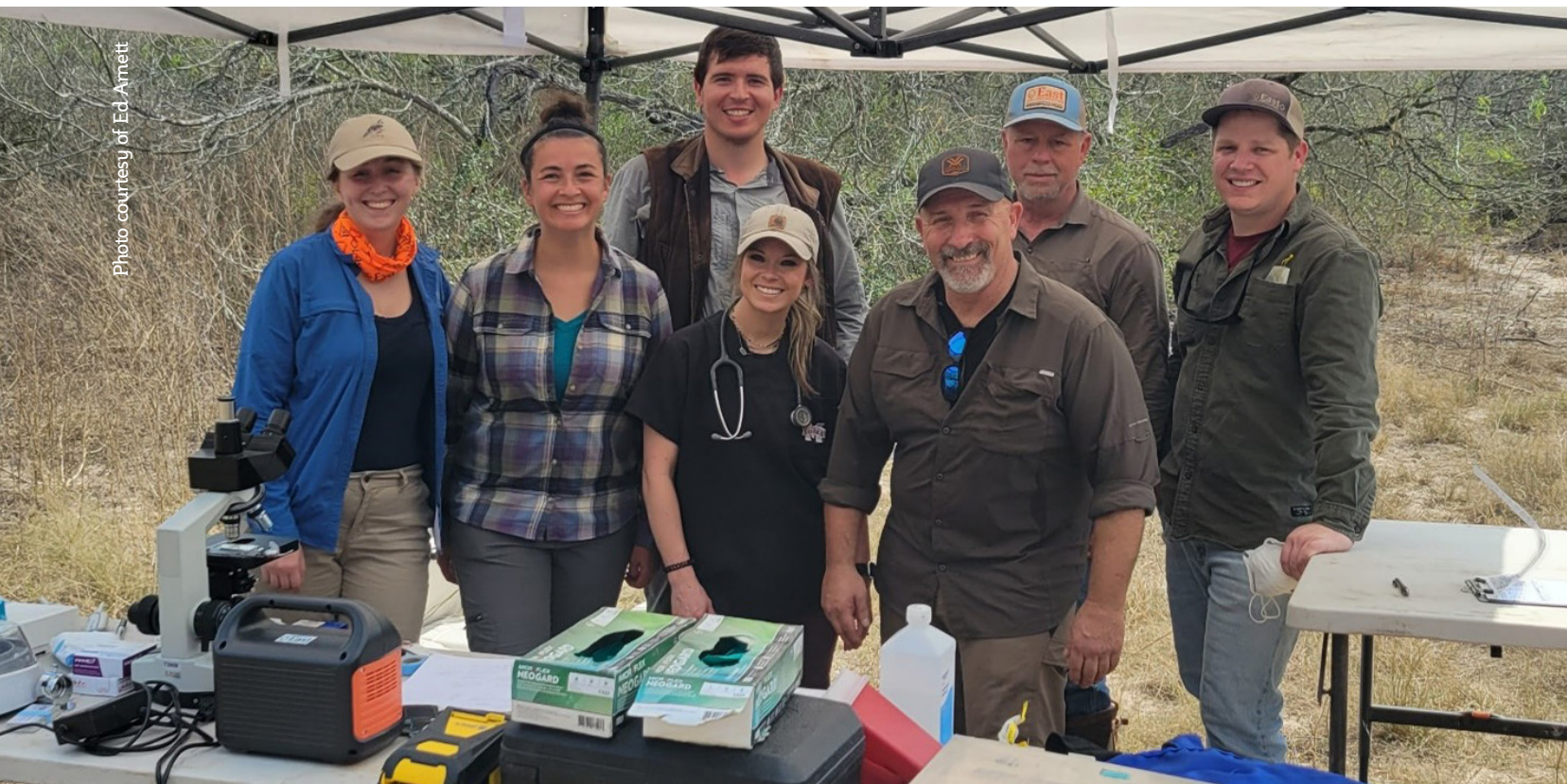

The ocelot capture team was thrilled to be joined by Dr. Ed Arnett, CEO of The Wildlife Society, on one capture day. Pictured (left to right) are CKWRI master's student Tyler Bostwick; Dr. Lisanne Petracca, assistant professor of carnivore ecology at CKWRI; Aidan Branney, East Foundation technician and CKWRI master's graduate; Dr. Ashley Reeves, research veterinarian at East Foundation; Dr. Ed Arnett, CEO of The Wildlife Society; Dr. Neal Wilkins, CEO of East Foundation; Landon Schofield, range and wildlife biologist at East Foundation.

Renewed Hope for South Texas Ocelots

Article by **LISANNE PETRACCA,** *Ph.D., Assistant Professor of Carnivore Ecology, Caesar Kleberg Wildlife Research Institute*

It's 8:28 am when the text message comes in from Aidan Branney, MSc and technician for East Foundation: "Double ocelot." For me, a new assistant professor of carnivore ecology at the Caesar Kleberg Wildlife Research Institute (CKWRI), this is my first-ever "double ocelot day."

From this moment, the ocelot trapping team, comprising researchers and students from CKWRI and East Foundation, has less than 30 minutes to mobilize and head out of Kingsville for El Sauz Ranch. El Sauz is a 27,000-acre property owned by the East Foundation and serves as one of the last strongholds for the American ocelot.

Our 75-minute drive to El Sauz is punctuated with excitement. Ashley Reeves, DVM, Ph.D., research veterinarian at the East Foundation, knows this is going to be a long day.

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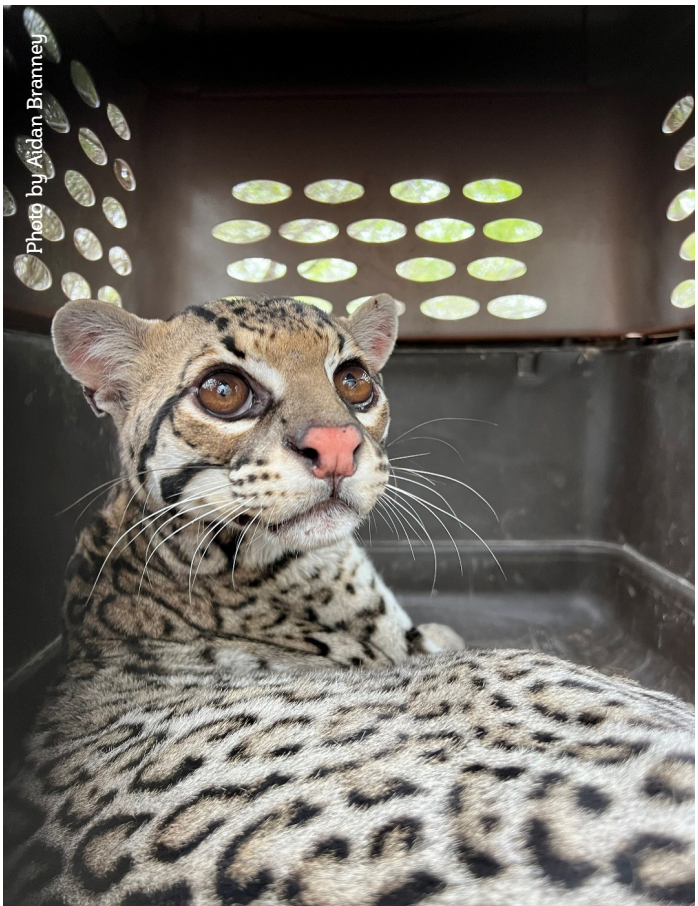
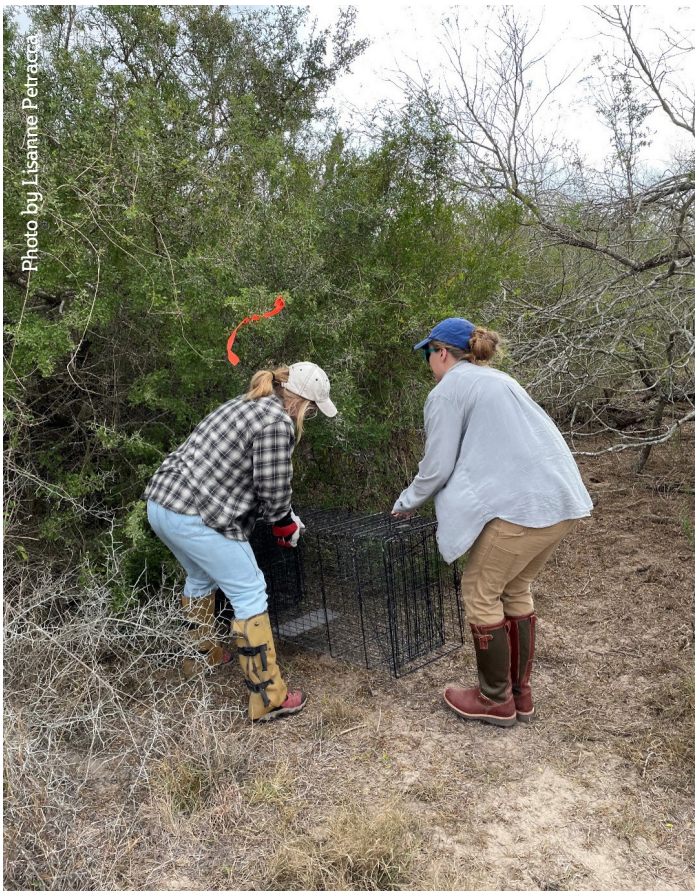


Louis the Ocelot, a young male captured on the East Foundation's El Sauz Ranch on March 20, 2023. This male was processed by the capture team and released back into the wild.



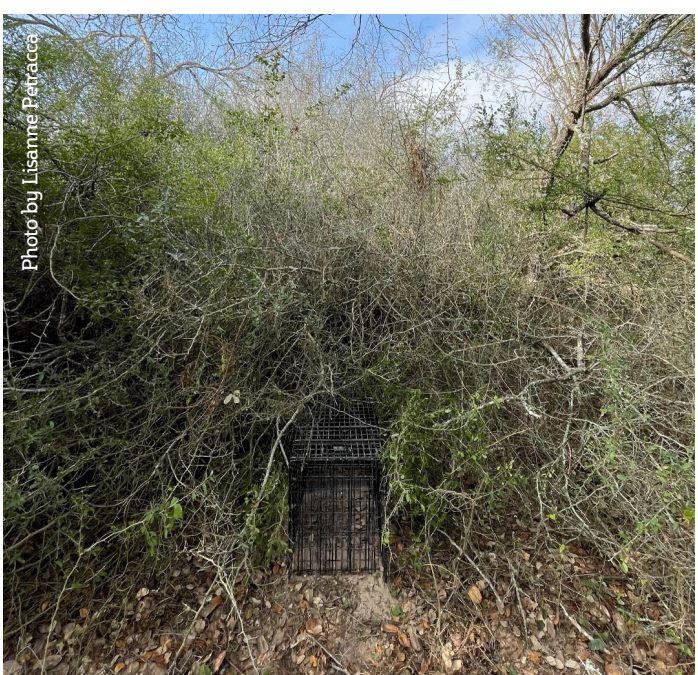
CKWRI intern Georgia Harris (left) and master's student Tyler Bostwick (right) prepare to place a box trap in thick thornscrub. These traps are intended to capture ocelots and bobcats, though they also capture raccoons, opossum, coyotes, rabbits, and even birds of prey.

Dr. Reeves leads the capture team at El Sauz and is equipped with everything we need to safely immobilize and process an ocelot: immobilization drugs, needles, syringes, subcutaneous fluids, and monitors for vital signs. Most importantly is perhaps her equipment to extract semen from male ocelots, which is part of ongoing work in captive breeding of American ocelots.

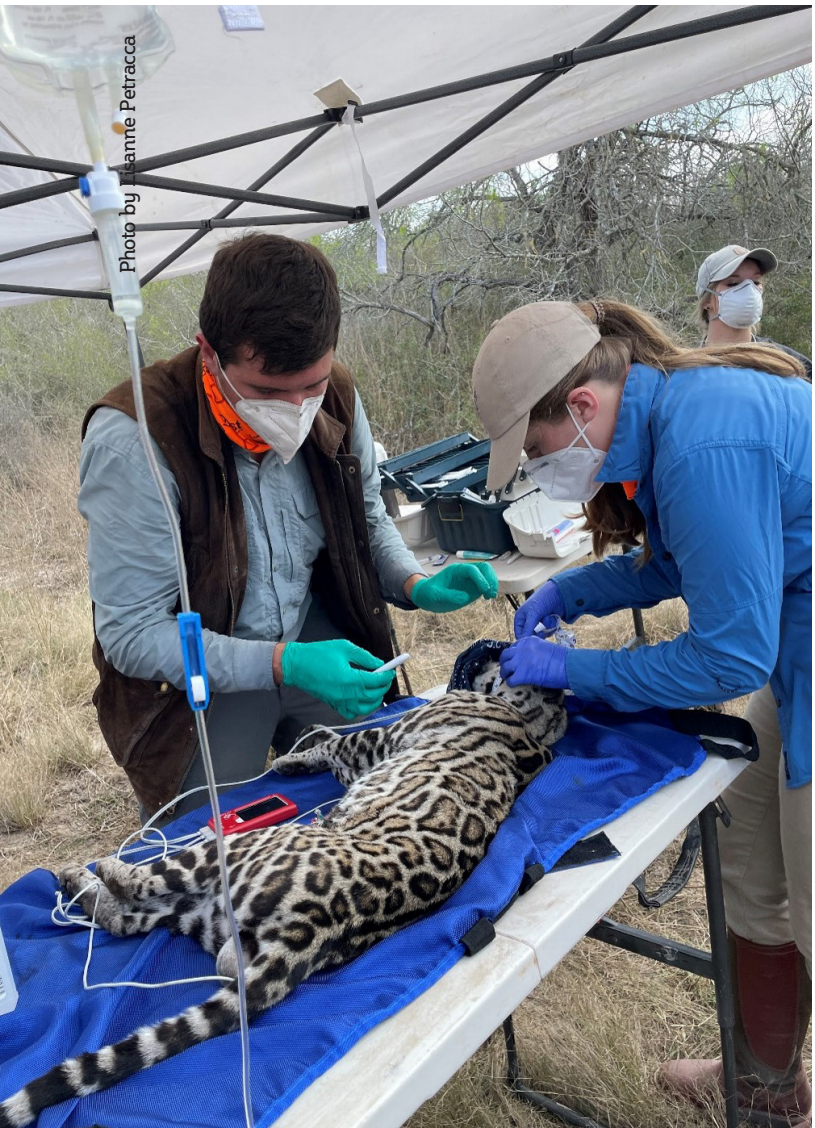
Capturing and processing ocelots is a task that no one on the team takes lightly. The process requires swiftness, attention to detail, and caution. In addition to Reeves, Branney, and myself, we are assisted by CKWRI master's student Tyler Bostwick and intern Georgia Harris.

During the 30 or so minutes it takes us to process an ocelot, we are conducting multiple tasks simultaneously: after injecting immobilization drugs via hand syringe, we must monitor vital signs, draw blood, remove ticks and fleas for disease analysis, inject subcutaneous fluids to prevent dehydration, and (if male) extract semen for the ongoing assisted reproduction project headed by Dr. Reeves.

When processing is complete, we inject a reversal drug and wait for the ocelot to regain mobility, at which point we release it back into the wild. It is always such a sight to see these magnificent cats vanish into the thornscrub, disappearing almost instantly.



One of 30 box traps set to capture ocelots and bobcats on El Sauz Ranch, managed by the East Foundation.



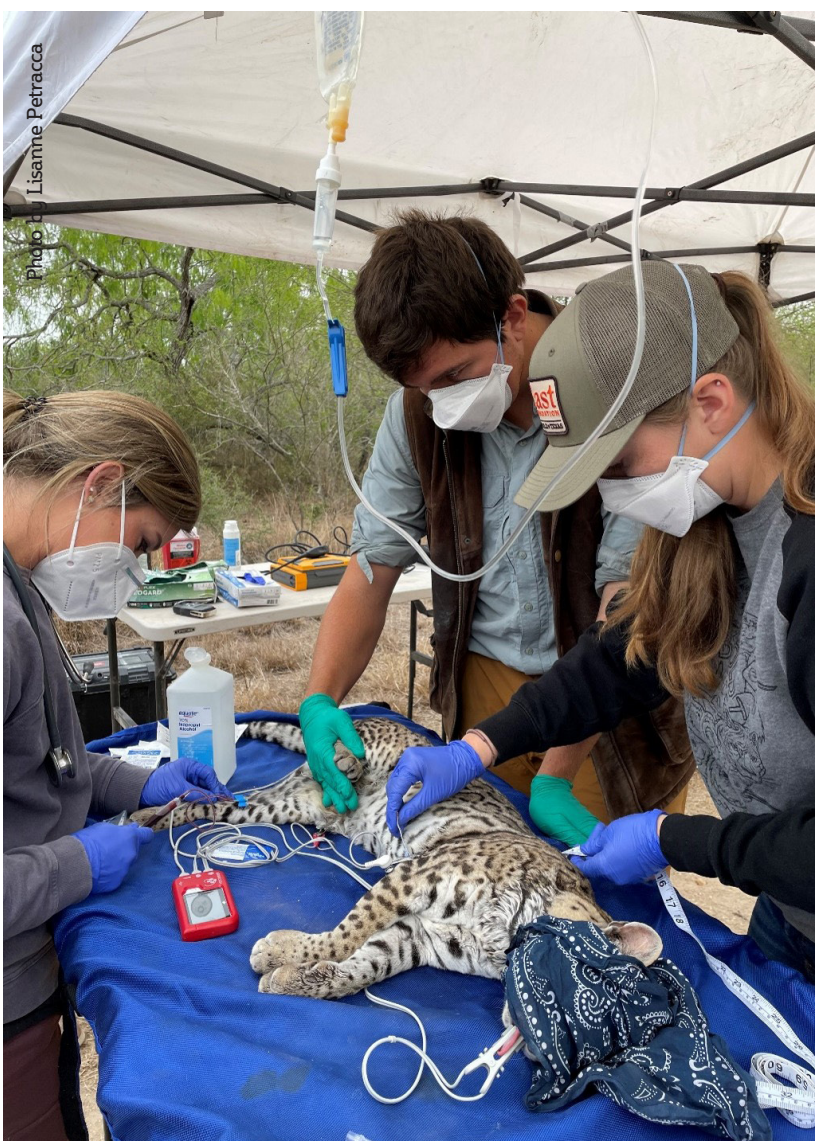
East Foundation technician and CKWRI master's graduate Aidan Branney (left) and CKWRI master's student Tyler Bostwick (right) take measurements from a male ocelot.

The first ocelot from that day was a female that we named Valentina. It is rare to catch a female, as she was one of only two that we would capture in the whole capture season (to the contrary, we caught eight males). The second, a male and perhaps the most handsome ocelot I'd ever seen, was named Louis after my ailing father.

At the time, my father was intubated in the ICU after suffering a severe stroke. My brother held up the phone as I told my dad about the ocelot capture and the ocelot's new name. I tried so hard to send the ferocity and strength of this incredible animal to my father to help him heal. I'm not much for superstition, but my father was removed from life support the next day and started breathing on his own.

The American ocelot has received much attention lately thanks to two documentaries partially filmed and directed on El Sauz Ranch by Texas native Ben Masters: "American Ocelot" on PBS and "Deep in the Heart" on Amazon Prime, the latter narrated by actor Matthew McConaughey. In Masters' footage, Dr. Michael Tewes, regents professor and the Frank Daniel Yturria Endowed Chair for Wild Cat Studies at CKWRI, related how he has personally witnessed the decline of ocelots in South Texas since he began his research in the 1980s.

The ocelots of South Texas are the only ocelots present in the United States, and are listed as endangered under the Endangered Species Act. There are two populations: the "Ranch" population, largely on El Sauz Ranch and managed by the East Foundation, and the "Refuge" population, found at Laguna Atascosa National Wildlife Refuge and managed by the United States Fish and Wildlife Service (USFWS). We don't exactly know how many ocelots are left in South Texas, but there may be fewer than 20 in the Refuge population and fewer than 120 in all of South Texas.



Dr. Ashley Reeves (left), research veterinarian at East Foundation, draws blood from a young ocelot while Aidan Branney and Tyler Bostwick (right) assist.

Threats to ocelots have been well documented. A burgeoning human population in the Lower Rio Grande Valley, with corresponding development of roads and infrastructure, has caused the two ocelot populations to become isolated from one another. In addition, vehicle collisions serve as a major source of ocelot mortality, as dispersing cats often don't make it very far before being struck by traffic. CKWRI is currently working with the Texas Department of Transportation to better understand ocelot movements across roads and how to mitigate adverse impacts via crossing structures.

Despite the multitude of threats facing the ocelots of South Texas, there is currently a swell of momentum to help recover the species. First, the East Foundation, led by CEO Dr. Neal Wilkins, has led critical work in laying the foundation for collaboration and partnership with private landowners in South Texas.

Second, CKWRI and partners, including the East Foundation, USFWS, and the Texas A&M Natural Resources Institute, are committed to ocelot recovery and conservation, as evidenced by the creation of my position and the support of ongoing research into ocelot genetics, movement ecology, assisted reproduction, and habitat restoration.

Lastly, and perhaps most importantly, there is an exciting opportunity to construct a captive breeding facility at Texas A&M – Kingsville and reintroduce ocelots into South Texas.

Reintroducing ocelots to South Texas is still in its early stages, but has incredible potential to change the trajectory for the American ocelot. A possible reintroduction site has already been identified and, contingent on funding, we may be able to release young ocelots from a captive breeding facility or translocated ocelots from a source population, such as that in Tamaulipas, Mexico.

The work in my lab over the next decade will be dedicated to recovery of ocelots in South Texas. We will monitor information on key vital rates, such as survival and reproduction, and movement behaviors, such as den site selection and dispersal, so that we can better understand ocelot population dynamics and ultimately achieve species recovery in the United States.

I, for one, am hopeful for the American ocelot. In my field work in South Texas so far, I have found ocelots to not only be visually striking, but also tenacious and resilient. Ocelots are able to thrive in some of the toughest conditions on earth, making dens in thick thornscrub and regularly enduring temperatures over 100 degrees, as well as frequent drought.

Ocelots have been a part of the Texan landscape for thousands of years, and I hope that we can continue to make space for them in our world.

Editor's Note: *To learn more about Dr. Petracca's research, go to* https://lisannepetracca.weebly.com/