

REHORNING TEXAS

Help the Horned Lizard Make a Comeback



Legend has it that on Saturday, December 14, 1957, Walt Disney came to smalltown Texas. The story goes that “Uncle Walt” himself held a special premiere of his new film *Old Yeller* at the already historic Odeon, West Texas’s longest continually operating theater, in the town square of Mason. The film was based on a book written by Mason native, Fred Gipson, and centered around a family of sodbuster settlers in post-Civil War Texas living near Mason in a log cabin along Birdsong Creek. Pertinent to *our* story, the film accurately featured a suite of native prairie wildlife that were still present in Central Texas in the 1860s — among them gray wolves, bobwhite quails and black bears. But featured more prominently in the film was a sight that only today’s older generations of Texans remember — a young child playing with horned lizards *in his yard*. The tritagonist Arliss Coates brings them into the house by the pocketful and trades one of them for the titular character of the film’s story.

At the time *Old Yeller* premiered, horned lizards (better known as “horny toads” or “horned frogs”) were still an ever-present sight in smalltown America in the western half of the country. Kids from Texas attending national scouting jamborees, jovially marketing them as “large cockleburrs” or “porcupine eggs,” swapped them by the shoebox-full for sequoia pinecones from kids in California and for seashells from kids in Florida. Some of those same youngsters would sell them to gas stations for the pet-and-curio resale trade the same way they would sell soda-pop bottles for extra spending money. Other films of the era, particularly westerns like *Red River*, and even other feature-length offerings from Disney (such as *The Living Desert*), included horned lizards. But hardly a decade after Walt Disney visited the town of Mason, the State of Texas would designate them as a threatened species.

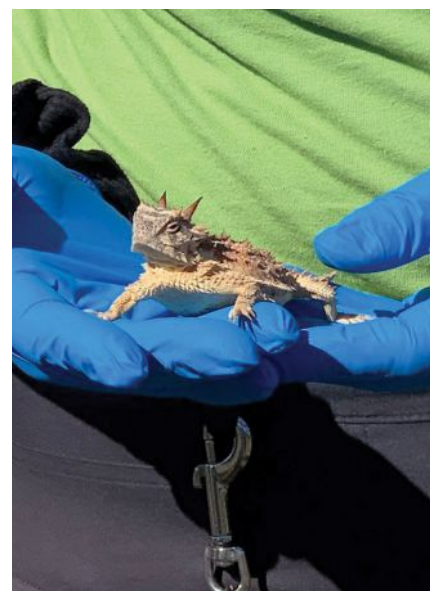
Today, there are no more bears in Mason, Texas. The last wild wolf in Texas was trapped and killed in December 1970. Gone too from Mason are other former residents, such as wild bison and prairie dogs. Ousted by so-called “improved” pasture grasses, quails — and tussocks of prairie grasses they nest in — are seemingly as rare as hen’s teeth. And, sure enough, horned lizards also have disappeared from folks’ yards in town.

But on the far outskirts beyond the city limits, a remnant of horned lizards has managed a toehold in some of the rural outstretches of the county. Naturalist-turned-ranchers who manage the White Ranch, the Double Helix and Rancho Cascabel with cattle on their Mason County ranches are all implementing land-management practices that would allow for horned lizards and other prairie wildlife to venture a return into portions of their former range. To boot, a nearby wildlife-management area is being repopulated artificially with zoo-bred horned lizards. Their habitat is being restored and managed by Texas Parks & Wildlife biologists, and those lizards and their habitat associations are being monitored and studied by Texas Christian University (TCU) students in the Dean Williams lab. Other Texas zoos, nature centers and even seed companies are joining in on the effort to “re-horn Texas.” In short, if you’re nostalgic and longing for simpler times when kids, the young and the young-at-heart can see horny toads again, things are happening in that direction.

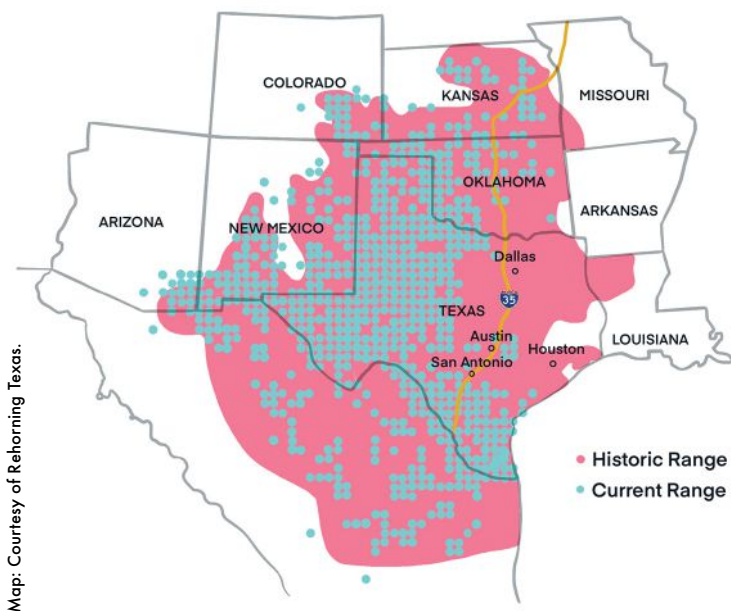
All this horny-toad hoopla begs the question: Why do Texans rally so for these diminutive dinosaurian-like reptiles? I believe it is because horned lizards are more than a mere symbol of this place. I believe horned lizards are an approachable, pocket-sized symbol of a type of beauty that lies outside of the whims and wishes of humans. They are an approachable and pocket-sized symbol of *wildness* — freedom incarnate itself that you can hold in your hand and even rub its belly. The community eco-citizenry that horned lizards co-existed with pre-settlement — wild bovines, wild canines and wild perennial grasses — were replaced with and (soon became proverbial islands) surrounded by a veritable sea of non-wild and exotic counterparts: domesticated cows, domesticated dogs and domesticated annual grasses like



Photos: Kate Antoun



BY DUSTY RHOADS, M.S.
Owner, Rehorning Texas



Map: Courtesy of Rehoming Texas.

Horned lizards are practically extinct everywhere east of the I-35 corridor between Fort Worth and Austin.

corn and wheat. As poet naturalist Dale F. Lott quipped about re-wilding the West with bison by overcoming the wide gulf of domestication: “We must not let them drown in that sea.” His analogy was sharply revelatory and succinctly epiphanogenic.

So, what can everyday Texans do to help the return of horned lizards and their habitat and food web? Quite a lot. In fact, with upwards of 93% of Texas lands being privately owned and managed, if we are to start rehoming Texas in earnest, it’s going to take everyone’s help. And that’s the exciting part. Whether you have a postage-stamp yard, manage a stately ranch, teach at or attend a school or church, or volunteer at a city park, what follows are actionable steps you can take to link, increase, improve and create habitat and populations to make a measurable difference to the prosperity and “comeback” of Texas horned lizards.

Re-horning your land starts with “re-prairie-ing” your land. Texas horned lizards are a prairie species. From the stripe down the middle of their back to the pigments in their skin, everything about their concealing color patterns reflects the prairie lands that made them. Additionally, they are purely insectivorous, and although they will generalize broadly as opportunities arise, they are designed bodily and behaviorally to use their cryptic coloration and toad-like, plump form to respectively hide from predators in plain sight while they sit and wait to stuff themselves with hundreds of grassland-dwelling, low-nutrient, trail-foraging, native social insects as they come marching by, lapping them up with their short, sticky tongue, one by one. Our task

therefore is to reset this ecological stage so that their evolutionary play can continue.

Seek out a high diversity of native plants that are typical for the historic grasslands of your ecoregion and emphasize the ones that attract horned-lizard food. In May 2023, I attended Plant Appreciation Day at the Rolling Plains Quail Research Ranch in Fisher County. It boasts one of the most robust horned-lizard populations within a three-hour’s drive of DFW. In a single hour, our bioblitz tallied 171 plant species, most of them native, with grasses and forbs leading the count. Encountered that day were plants that support the insects that horned lizards prefer, such as species with extrafloral nectaries (e.g., several species of sunflower), species with fatty caps on the seedcoats called elaiosomes (e.g., scrambled eggs and other *Corydalis* spp.) and species that attract the aphids that ants extract honeydew from (e.g., milkweeds). Overall, the consensus on native-plant/insect associations is thus: more native-plant diversity equals more native-insect diversity equals more food for native insectivores like horned lizards. Most adult populations of horned lizards eat trail-foraging social insects of the prairie, such as big seed-harvester ants (*Pogonomyrmex*) and grass-harvester termites (*Tenuirostritermes*). Newborn hatchling horned lizards are tiny (they can fit on a dime) and generally eat mostly smaller ant species like big-headed ants (*Pheidole*) or acrobat ants (*Crematogaster*). Research in South Texas shows that the more native-plant diversity and native-plant richness you have in an area, the more native-ant species you have there too. So, you can provide food for horned lizards of all ages and sizes by providing their habitat with a diverse assortment of wildflowers and grasses that drop seed at various times throughout the year. Trees should also be native and spaced about as far apart from each other as players in a baseball diamond.

Whatever you do plant, emphasize native species that are known to support native ants, termites, bees, beetles and aphids. It goes without saying that using pesticides would be counterproductive. The Xerces Society has been busying itself teaching the public “conservation biocontrol” ways to eliminate the need for outdoor pesticides.

Create a grassland mosaic of habitat types. Recent research from TCU shows that alleyways can mimic the kinds of wild spaces that horned lizards need — patches of short, trodden plants in the center flanked by patches of taller plants — in a word, *mosaics*. Horned lizards need open shortgrass spaces with lots of bare ground between clumps to forage for insect prey, camouflage against the bare soil, see predators and bask in the sun to digest their meals. They also need some taller

“weeds” nearby to quickly hide from predators and escape midday heat.

You can mimic wild mosaics easily. Start by planting patches with basketball-sized native bunchgrasses, cacti and wildflower clumps for shade and cover, and plant them openly or along fence and property lines to create “no mow” cover for horned lizards. Then, plant another native plant mix to mimic the grazed shortgrass areas that wildfires, bison and prairie dogs created for horned lizards, utilizing bunchgrass and wildflower species under 12-inches high. In both areas, aim for varying amounts of bare ground ranging between 25–75%.

For shadier areas of the native yard, use a mixture of short, shade-tolerant natives like horse herb (aka straggler daisy) and others that don’t form a dense carpet. I’ve seen yards with almost entirely horse herb support dozens of horned lizards, while yards next door with carpets of St. Augustine or Bermuda grass had zero horned lizards. Even native turfs are generally too thick for horned lizards to traverse on a regular basis, especially adults.

Create a nursery mound for mother and baby horned lizards. When I’ve done horned-lizard surveys in small Texas towns, I almost always find newly hatched babies near a pile of loosened soil, where mothers deposited their eggs. These included compost piles of discarded potted plants in alleyways and sandheaps used as infield dirt for little-league baseball diamonds. You can mimic this habitat feature by creating a beautifully planted “nursery mound” of soil. Hatchling lizards will spend the first few months of their lives near these structures.

Support engineers who are rewinding prairie ecosystems. Some species and natural processes actually build horned-lizard prairie habitat free of charge. Dung beetles, prairie dogs, wolves, wild grazers (bison, elk), beavers, pocket gophers and wildfires (or prescribed burns) all create horned-lizard habitat around the clock wherever they are allowed to exist. Of course, they do. Because, like characters in a Richard Scarry picture book, they are members of the same community as horned lizards. Get involved with organizations that promote these native species and natural phenomena. The Native Prairies Association of Texas, the Texas Lobo Coalition, Texas Prescribed Fire Council, the Prairie Dog Coalition and the Texas Tribal Buffalo Project are all examples of such organizations. Support them and similar initiatives and efforts.

At the time of writing this (October 2023), I was able to send the Double Helix Ranch in Mason some of the new Horned Lizard Habitat Mix from Native American Seed. It’s, to my knowledge, the first commercially available native-plant seed mix for a reptile. I think about folks like them who are following these and other basic principles of horned-lizard habitat management and seeing horned lizards from neighboring lands return to theirs. I think about kids in Mason today who participate in the annual dog parade of Old Yeller Day every final Saturday in September. Will the kids there ever be able to get scolded for bringing a horned toad into the house from their front yard, I wonder? Will kids in Houston, Fort Worth, San Antonio, Austin and El Paso one day experience the same? I think it’s up to all of us how this story ends. 🦎

Horned lizards need open, short-grass spaces with bare ground to forage for insects and for prey-thwarting camouflage.



Photo: Dusty Rhoads