Important Reminders

Pets must be kept on a leash.

Do not attempt to hike on trails after dark.

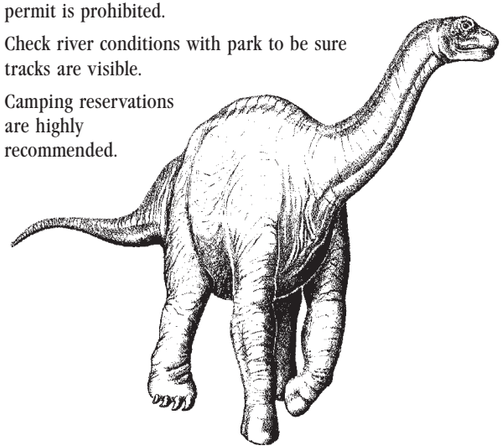
Stay on established marked trails; do not make short cuts.

Good hiking/wading boots are recommended for viewing tracks in the riverbed.

Casting of dinosaur tracks without scientific permit is prohibited.

Check river conditions with park to be sure tracks are visible.

Camping reservations are highly recommended.



Further Reading

The Dinosaurs of Dinosaur Valley State Park,
by James O. Farlow, Texas Parks & Wildlife Press, 1993.

Dinosaur Days in Texas,
by Tom and Jane D. Allen, Hendrick-Long Publishing Co., 1989.

Bones for Barnum Brown,
by Robert T. Bird, Texas Christian University Press, 1985.

Lone Star Dinosaurs,
by Louis Jacobs, Texas A&M University Press, 1995.

Rates and reservations, call 1-512-389-8900.
For information only, call 1-800-792-1112.
Web site: http://www.tpwd.state.tx.us

TEXAS PARKS & WILDLIFE

DINOSAUR VALLEY STATE PARK
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Dinosaur Valley

State Park

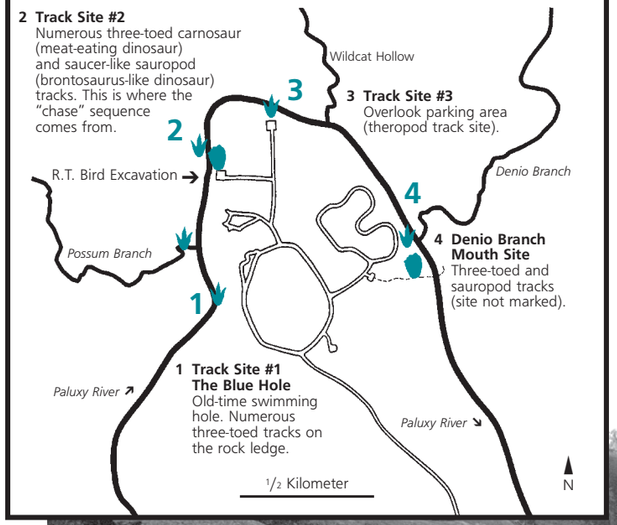
The Park

The Paluxy River is one of the more scenic tributaries of the Brazos River and widely known for the dinosaur tracks exposed at various places in its streambed.

Most of the park land and the large meandering bend of the Paluxy River within park boundaries was acquired in 1969, with subsequent purchases bringing the total to 1,523 acres. In recognition of its outstanding value as a natural feature, this 1,523-acre park is designated as a National Natural Landmark by the National Park Service.

In 1970, the Atlantic Richfield Company donated a 70-foot Brontosaurus (more correctly called Apatosaurus) and a 45-foot Tyrannosaurus rex to the park. These fiberglass models were from the Sinclair Oil Corporation's 1964-65 New York World's Fair Dinosaur Exhibit. The Apatosaurus head was reconstructed in 1985 to reflect more accurate paleontological information on this dinosaur. Tracks found in the park belong to relatives of these two dinosaurs.

Dinosaur Track Viewing Areas



Natural History

Eastward-dipping limestones, sandstones and mudstones, deposited from 113 million years ago along the shorelines of an ancient sea, form the geological setting for the park area. Over the last million years or so, these layered formations have been dissected and sculpted by the Paluxy River which, in many places, has cut down to resistant beds and planed off sizable exposures of rock in the river bottom.

Plants in the Paluxy River drainage are characteristic of the Cross Timbers and Prairie vegetational areas. The uplands show similarities with the plants of the Edwards Plateau to the south and west, supporting Ashe juniper, live oak, Texas red oak and Texas ash, with some post oak and mesquite and various grasses and shrubs. Trees in the bottomlands are mainly American elm, cedar elm, Texas sugarberry, bur oak and green ash. In well-watered zones along the river, the woodlands are made up of pecan, walnut, cottonwood, sycamore, black willow and several kinds of shrubs and vines.

The area hosts many species of both resident and migrant birds including wild turkey. Waterfowl are occasionally seen near ponds and slackwater pools. Mammals known to live in this environment include white-tailed deer, coyote, bobcat, raccoon, beaver, skunk, opossum, armadillo, fox squirrel, rabbit and small rodents. There are also several kinds of lizards and snakes, and a variety of fishes live in suitable portions of the river. A bird checklist is available at Park Headquarters.

Dinosaur Tracks

Layered rocks in the park belong to the Glen Rose formation, deposited from about 113 million years ago as Cretaceous seas began an oscillating advance across central and north-central Texas. Away from the shore, lush subtropical vegetation supported plant-eating dinosaurs which, in turn, fell prey to fierce carnivorous dinosaurs. Occasionally, severe storms drove some of these giant reptiles from the marshes and upland forests down to the wide tidal flats bordering what was then the Gulf of Mexico. There, they left deeply impressed tracks in the soft, limy mud. When filled with new sediments washed in from bordering lagoons, and upon hardening into rock, the ancient footprints became the preserved molds we find today.

Dinosaur tracks from Glen Rose limestone outcrops in Texas are present at more than fifteen different localities extending from near Del Rio to north of Dallas. The first tracks were found near Glen Rose, at what is now Dinosaur Valley State Park, in 1909, but they were not widely acclaimed until 1938 when Roland T. Bird of the American Museum of Natural History visited the site. Among the many tracks he found were a remarkable double set of tracks left by a giant sauropod (brontosaurus-like) dinosaur followed by a large carnivorous dinosaur. This impressive record of an ancient hunt was collected and placed on exhibit at the American Museum of Natural History in New York; other tracks collected nearby were put on exhibit at the Texas Memorial Museum in Austin. The park's Interpretive Center features a section of these sauropod and carnosaur (meat-eating dinosaur) tracks.

Three kinds of dinosaur tracks occur in the Glen Rose formation. The most common are three-toed, giant bird-like imprints, measuring from 12 to 24 inches in length and from 9 to 17 inches in width, with a stride length ranging from 45 to 65 inches. The only dinosaur known from nearby contemporaneous deposits whose foot structure matches these tracks is *Acrocanthosaurus* – a 20-to- 30-foot-long, two-legged carnosaur, belonging to the same group as the later, and even larger, *Tyrannosaurus rex*.
The second category of prints consists of saucer-like depressions, ranging to over 3 feet in length and 2 feet in width, with stride lengths from 7 to 10 feet. Only one group of dinosaurs contained representatives capable of leaving such enormous tracks. These were the sauropods, plant-eating forms with serpentine necks, massive bodies on pillar-like legs, and long tails. (Their best-known member was 70-foot-long *Apatosaurus* (formerly *Brontosaurus)* of Jurassic times, the geologic period preceding the Cretaceous.) Glen Rose deposits contain only one kind of sauropod, a dinosaur, 30 to 50 feet long, with a relatively short neck and tail, called *Pleurocoelus.* When walking, *Pleurocoelus* not only made saucer-like depressions with its four-toed, clawed hind feet, it also left odd, vaguely horseshoe-shaped tracks as its sheathed front feet sank into the mud.

Besides being rare, the third category of prints is also something of a mystery, although these tracks are generally attributed to an early ornithopod – one of the two-legged plant-eaters whose later descendants included the duck-billed dinosaurs. Like the first kind of tracks mentioned, the impressions are large, three-toed and bird-like, but the toes are not as elongated, and the "heel" tends to be more rounded in outline. The fossil remains of a 15-to-20-foot-long ornithopod called *Tenontosaurus* have been found in adjacent areas, but this dinosaur's size and four-toed foot structure do not match the stubby-toed prints too well. A 1985 Texas discovery of *Iguanodon* bones – belonging to a 30-foot-long ornithopod previously known only from Europe – may finally account for the originator of the mystery prints, since this dinosaur has the proper kind of stubby, three-toed foot structure.

The various dinosaur tracks at the park and surrounding areas have furnished scientists with fascinating evidence about the habits of creatures long extinct. Unlike bones, footprints are irrefutable proof of an animal's activities in a specific locality. Tracks at the park have been used to determine how fast these dinosaurs moved – for instance, *Acrocanthosaurus* was traveling at about 5 miles per hour as it pursued more ponderous *Pleurocoelus* moving at 2.7 miles per hour. Trackways in adjacent areas also show that sauropods were herd animals and moved in groups numbering some two dozen individuals, with the larger adults flanking juveniles in the middle.


carnosaur track, probably *Acrocanthosaurus*


ornithopod track, probably *Iguanodon*