

Presenting ... Dallas Zoos for Families and Children
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**Discovery House
 and Nature
 Exchange**

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Located at 650 South R.L., Thornton
 Freeway in Dallas, Texas these unique
 zoos provide education, healthy
 exercise and recreation for youngsters
 and their family. See it on the
 internet: <http://www.dallas-zoo.org>

Fish, frogs, toads, bearded dragons,
 Rough Green snakes, Virginia
 Opossum, box turtle, red-eared slider,
 Hedgehog, Ahole, Blue-tongued skink
 are the star attractions.

In September 2000, the Lacerte Family
 Children's Zoo completed a 5-year, \$23
 million renovation to the Dallas Zoo.
 The children's zoo features educational,
 interactive and entertaining exhibits for
 toddlers to pre-teenage children, with
 the concept of 'Connecting Kids to
 Nature'. Its purpose is to educate
 about the diversity of life on Earth; the
 importance of respecting animals and
 the environment; the need to conserve
 nature for future generations.

The Lacerte Family Children's Zoo is
 divided into five areas including The
 Plaza, Travis & Zach's Birds Landing,
 The Underzone, The Farm and the
 Discovery House. Each area provides a
 different experience for the young
 visitor. Visitors enter a winding path
 through a rock formation featuring
 small bronze animal sculptures. These
 encourage tactile behavior and provide
 children with an opportunity for
 exploration. The rock-walled entry
 widens into the Plaza which serves as
 the main central area. A water-filled
 stream and three large, colorful shade
 structures at the amphitheater are the
 main aesthetic features here.

The other four areas surround the
 central plaza. Each environment seeks
 to encourage discovery through visual
 and tactile interactives while creating a
 safe environment for children.



An animal in the Discovery House

The Discovery House resembles a small
 country building. Visitors have the
 opportunity to have a hands-on
 encounter with animals under the
 supervision of trained zoo volunteers
 and Conservation Guides. The building
 contains numerous opportunities for
 learning about science and zoo
 keeping.

The Nature Exchange is an educational
 area. Visitors are encouraged to bring
 in natural articles they have found
 outside of the zoo grounds. Visitors can
 then collect points from their own
 items and exchange them for others
 items in the store. Points may be saved
 up for a special, more 'expensive'
 purchase.

A 'Tot Spot' play area and Snack Shop
 are found on the Plaza at the center of
 the children's zoo. Children's Zoo total:
 8100 m². The Discovery House main
 building total: 107 m². Outdoor areas
 include covered porch and yard. The
 Discovery House offers practical and
 educational pet care information, as
 well as the opportunity to explore the
 Butterfly Garden. An aquarium
 containing fish can be observed by
 visitors, as can a paludarium featuring
 frogs, toads and anoles.

Multiple seating and viewing
 opportunities are offered on rocks near
 the water and benches throughout the
 site.

The designing architects were
 Beginning: Architecture: The Portico Group, 1500 4th Avenue, 3rd Floor Seattle, Washington 98101-1670
 Landscape Architecture: The Portico Group, 1500 4th Avenue, 3rd Floor Seattle, Washington 98101-1670
 Architecture: Urban Architecture, Dallas, Texas, USA
 Interpretive Planning and Design: Aldrich Pears Associates, Vancouver, Canada

Features for visitors

Water features, such as the fountain 'Raccoon Springs' and a wandering stream though The Plaza offer children the opportunity to play in the water. Large, colorful shade structures in the shape of flowers and a butterfly provide shade at the amphitheatre. Natural play structures have been added to the Plaza which encourage exploration. Nature Play in the Discovery House encourages empathy with animals: children can dress up as animals or build tents in the Serengeti area. The Discovery House offers practical and educational pet care information, as well as the opportunity to explore the Butterfly Garden.

Education and Interpretation

The Discovery House and Yard aims to educate visitors about making gardens and parks suitable habitats for native Texan wild animals. There is a microscope for children to view slides of insects, an audio-electronic game about animal communication and many other interactive features. The Nature Exchange is a unique, interactive 'store' where children can bring in and exchange natural items, such as fossils, leaves or rocks and discuss them with zoo



A play area with colourful shade structures of butterflies and flowers



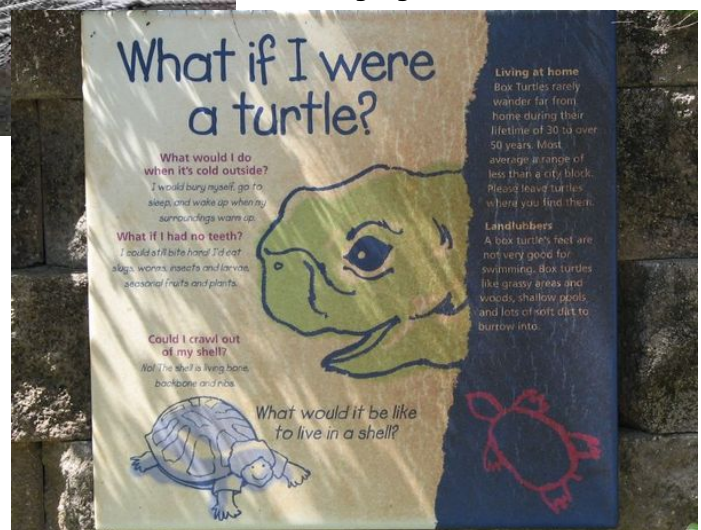
Rope play structures for children to climb and natural shade from trees

Attractive and winning educational signage for curious kids.

volunteers. Colorful and informative signs featuring stylized animal images are aimed for children. The play elements within the Plaza help children relate and empathize with animals. Zoo volunteers and Conservation Guides answer questions and supervise animal encounters.

Conservation

Zoo volunteers and conservation guides, signage and interpretive elements educate visitors about the importance of embracing conservation efforts in daily life.



The Farm

Directly opposite the main entrance to the Plaza, visitors may experience life at The Farm. A modified cattle guard allows easy access for all visitors on entry into the large red barn. Inside, visitors may view a range of farmyard animals, including rabbits, pot-bellied pigs, chickens and ponies that are used for the Pony Trek.

A smaller barn, used as a petting zoo, houses goats and sheep. Outside, a koi tank and vegetable garden are found at The Farm. During spring and summer, the raised vegetable and herb beds are filled with a variety of food

plants that can be grown in Texas, such as tomatoes, rosemary and sunflowers. Cost 7 million US dollars. Design and construction were funded from private donations to the Dallas Zoological Society.

Designers included: Landscape Architecture, Dallas Texas; The Portico Group, Seattle, Washington, Aldrich Pears Associates, Vancouver, Canada

Animals consisted of common (in USA) farm animals ... Ducks, goats, donkey, pony, rabbits, chicken, pigs.

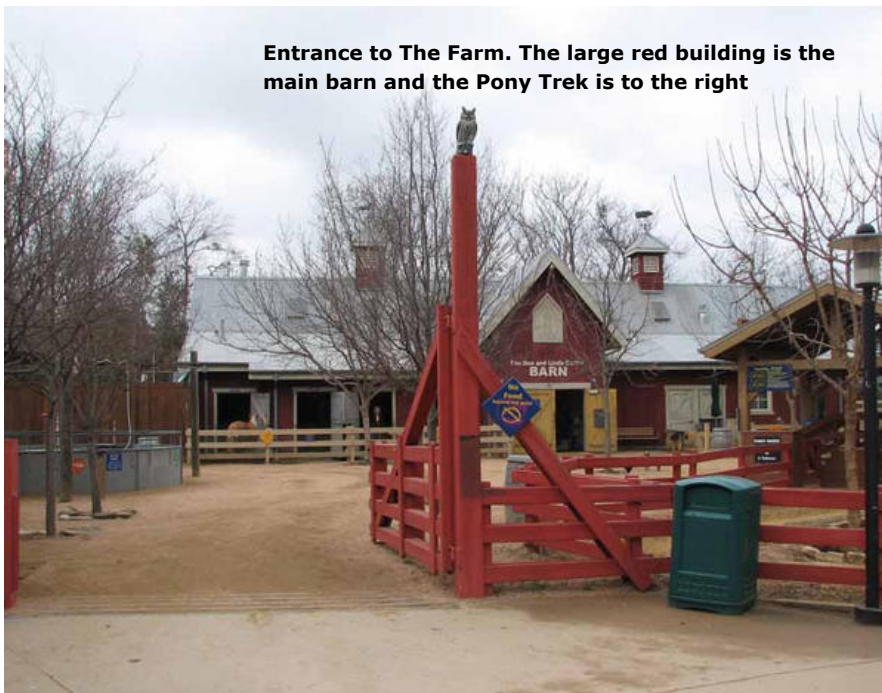
Zookeepers appreciate a large stainless steel grain silo that provides extra

storage. The Barn has a Keeper office and a kitchen with sinks, a washer and dryer, a refrigerator, and floor drains.

Visitors may feed some of the farm animals. Hand washing facilities are located in the red barn and on exiting The Farm to encourage sanitization following animal encounters. Hand sanitizer is also located in the sheep and goat petting zoo. The Pony Trek is available for children to ride the ponies along a designated course. A sunken seating area is located around half of the large circular koi tank so that visitors can view the koi through large viewing windows.

Educational features include a chance to see chicks in incubators, horses, pigs, rabbits, guinea pigs, chickens and goats. A wormery is on display and there is information about how and why to use compost heaps. A raised organic garden encourages people to commit to using their natural environment responsibly and eating organically. Colorful and informative signs featuring stylized animal images are aimed for children. Zoo volunteers and Conservation Guides are available to answer questions and supervise animal encounters and feedings.

Conservation : Zoo volunteers and conservation guides, signage and interpretive elements educate visitors about the importance of embracing conservation efforts in daily life. The composting area and organic garden beds encourage awareness about the benefits of green living. Attempts to protect mature existing trees have been made in the Children's Zoo.



Entrance to The Farm. The large red building is the main barn and the Pony Trek is to the right



Asian miniature donkeys



Children and parents love to feed the ducks on the pond

Travis and Zach's Bird Landing

Travis & Zach's Bird Landing is located near the main entry of The Plaza. It was originally a walk-through wallaby exhibit but was later redesigned as a walk-through aviary. During the redesign, a second animal holding building was constructed and was made to match the style of the original wallaby house. Both buildings were modified to serve as bird holding facilities. Bird Landing offers the visitor close animal interaction: during feeding times, the birds may even perch on visitors' shoulders. The large mesh aviary allows the birds ample free-flight opportunities and provides enough space for a wide range of plant materials.

Each indoor building contains six separate stalls for a total of 12 large individual holding areas. Each of the stalls contain small windows leading into the free-flight aviary.

Some window openings are elevated for flying birds and some are low for ground-dwelling birds. The window openings can be secured with wire mesh if the birds are required to stay indoors. The mesh allows natural air flow and allows the birds to look into the aviary. Solid panels can also be inserted during winter months to keep the cold air out.

The indoor aviary has a radiant heater in the ceiling as well as a standard AC / heater system to regulate temperatures.

Dense planting within the aviary provides cover for the birds while the soil within the planting beds provides a natural substrate. Two large boulders with shallow troughs that hold water allow the birds varied drinking and bathing opportunities.

Keepers love their vestibule with a double-door system is located between the aviary and the back-of-house. A mirror is installed near the vestibule ceiling and faces the aviary door. This helps keepers prevent bird escapes: during the winter months when keepers may wear heavy jackets into the aviary some of the birds may sit on their jacket without being noticed. The mirror allows the keepers to check their backs prior to leaving the aviary.

Sliding doors between off-exhibit cages allow separating and shifting birds without releasing them into the aviary. The pulleys are located in the keeper corridor. Concrete floors are sloped for efficient drainage and cleaning. Concrete walkways within the aviary slope toward area drains. The holding buildings have vaulted ceilings and netting under the rafters to prevent escaped birds from flying up there. Netting is also installed at the doors. Plywood covers the highest rafters in the newer holding building to prevent escaped birds from perching out of reach of the keepers if they somehow get beyond the bird netting.

Visitors enjoy the large natural boulders are located throughout the aviary to provide seating opportunities. Dense planting and a fabric sheet on the top of the aviary provide shade from the Texas sun. The birds can be fed at set times, three times per day in the summer. A handwash station with two sinks is located in the entry vestibule to encourage sanitation following animal encounters. A 'Tot Spot' playground and Snack Shop are found within the Children's Zoo.



Bluejay



A bird in the aviary



Grosbeak starling



Golden-breasted starling

Two animal buildings each contain six indoor off-exhibit holding areas. A sliding door separates each holding stall to ease bird transfers between two stalls.

Generally, the birds are allowed into the aviary year-round. However, temperatures are monitored during the winter months and a chart listing bird temperature tolerances is monitored so that cold-sensitive bird species can be brought indoors.

All holding areas have raised entrances into the aviary for flying birds. Alternate stalls have a low-level opening for ground-dwelling birds. The aviary openings can be shut using either a solid or wire mesh panel. The solid panel limits winter drafts that may chill temperature-sensitive birds. The indoor aviary has a radiant heater in the ceiling as well as a standard AC / heater system to regulate temperatures. Cold-sensitive bird species are brought indoors in winter when the outside temperature drops too low.

The aviary netting, made of stainless steel coiled mesh, provides a secure barrier under which the birds may fly and allows them access to natural outdoor conditions. Nesting opportunities (nest boxes and wire baskets) are fixed into the aviary during nesting season. The aviary has a double-door entry porch to minimize bird escapes. Heavy-duty mesh strips limit bird access into the porch area.



Panels hung at the visitor entry and exit vestibule prevent bird escapes



The keepers monitor new birds for the exhibit in one of the off-show holding areas. The birds are introduced to human activity and evaluated prior to their release into the aviary.

The large aviary in Birds Landing has seating areas, plentiful vegetation and high ropes for perches

The Underzone

The Underzone, found within the Woods, is located adjacent to Bird Landing. This section houses a range of animals that live on the surface or under the ground.

Shield-tailed agama, Naked mole rat, Royal pytho, Jackson's hornbill, Scorpion, Dwarf mongoose, Costa Rican Zebra Tarantula

The Dwarf mongoose and Jackson's hornbill exhibit can be viewed from inside The Underzone, though the animals have an outdoor enclosure. A double perimeter fence surrounds the outdoor enclosure and there is steel mesh on the interior fence below ground so that animals cannot dig out. A glass separation between the mongoose and hornbill areas is approximately one meter in height. This prevents the mongooses from entering the hornbill nest site where they would disturb nesting activities. Different methods to present food allow natural behavioral opportunities like foraging and burrowing in mongooses and catching and pecking in birds.

The Naked mole rat exhibit has a network of PVC tunnels that connect numerous chambers. These simulate the tunnels in a mole rat's natural underground environment. The PVC tunnels are both level and at an angle: angled tunnels are ribbed to ease climbing. The individual chambers (behind the scenes) are rectangular cases made of acrylic and Plexiglass. They are lined with stainless steel mesh coated with Hydro-stone cement, a harder substance than concrete. Hydro-stone is necessary as mole rats are able to chew through standard concrete. Naked mole rat tunnel sections can be removed and replaced for easy cleaning and maintenance. Concrete floors are sloped for efficient drainage and cleaning.

Visitors may view the animals in a variety of ways, including a series of small windows for underground animals and an artificial termite tunnel leading under the mongoose and hornbill exhibit. Three domed Plexiglass bubbles located within the tunnel provide close-up viewing opportunities. The hornbill nest box can accommodate a video camera for when the birds are nesting. The camera is linked to the television in The Underzone for visitors (and keepers) to view inside the nest.

In The Underzone, children can climb through a simulated termite tunnel.



An animal found in The Underzone



Dwarf Mongoose

Children may view mongooses on exhibit through Plexiglass bubbles. Children love the colorful and informative signs featuring stylized animal images.

The mongoose exhibit contains artificial, hollow boulders with cut-out holes in which to hide food. The substrate promotes digging behavior and holes are filled when the animals are off-exhibit. Live foods, such as worms and crickets, are hidden in dirt piles or in plastic egg-shaped containers to encourage foraging behavior in mongooses and hornbills.

As naked mole rats are sensitive to noises, music is played behind the scenes to help reduce the impact of the noises made by visitors and keepers. The mole rats' chambers are maintained at 75% humidity to simulate their natural environment. A humidifier and additional heater are situated behind the scenes.

Zoo volunteers and conservation guides, signage and interpretive elements educate visitors about the importance of embracing conservation efforts in daily life.