



WELCOME TO THE ARBORETUM

Self Guided Walking Tour

Occupying the heart of the historic Rancho Santa Anita, The Los Angeles County Arboretum & Botanic Garden is a unique 127 acre historical museum and botanic garden located in the city of Arcadia. Home to plant collections from all over the world, including many rare and endangered species, the Arboretum also houses outdoor historical landmarks representative of the major phases of California history.

The Arboretum is also an animal sanctuary. In addition to The Arboretum's famous peafowl, visitors will see species of resident and migratory birds, aquatic creatures, as well as numerous species of small reptiles and mammals.

The Arboretum peafowl roaming the grounds are descendants of a pair imported by "Lucky" Baldwin from India in the 1880's. Males (peacocks) have a bright blue neck, but only during the mating season do they display their long trains. Both peacocks and the brown-colored peahens (females) can fly short distances, often roosting in trees at night.

Please do not touch, chase, or feed any of the animals you see in the garden. When you feed Arboretum animals you are giving them the wildlife equivalent of junk food. Rather than eating a variety of natural foods, they become dependant on processed foods that are not a part of their natural diet.

The following numbered stops correspond to the numbers on the self guided tour map.

Note: These numbers are not posted on the grounds.

STOP 1: ENTRANCE ROTUNDA/CELEBRATION GARDENS. If you are leading a school or youth group, your group registration form should be turned in at the cashier's station in the entrance rotunda. As you pass through the Rotunda, look up at the two large murals on the walls, one depicting Baldwin Lake and the other the Queen Anne Cottage. Both murals were designed by Arboretum volunteers using all dried plant material to create the pictures. Over 1,000 hours of volunteer work went into each mural. (Exit the Rotunda through the doors to the north toward the mountains). On your right, just before the first intersection, is the Celebration Garden, a 1.5 acre exhibit space

developed in conjunction with Sunset Magazine as a living museum of sample “theme” gardens. The intention is to offer visitors design ideas they can take home for use in their own gardens, patios or walkways.

STOP 2: COAST LIVE OAK. (Proceed north, uphill, to the large oak tree). This large tree is over 200 years of age and was standing when the Gabrielino/ Tongva people lived on the site of today’s Arboretum. Acorns from a number of oak species were the staple of the native California diet until the arrival of the Spanish in the 1770’s. Currently the Oak is being treated for a fungal disease, so we ask that visitors please remain out from under the branches.

STOP 3. GARDEN FOR ALL SEASONS. (On both sides of the path north of the oak tree). This garden shows creative ways of growing flowers and vegetables throughout the year. The fences and wire around the Garden for All Seasons vegetable beds are peafowl barriers.

STOP 4. EPIPHYLLUM SHADE HOUSE. Before you get to the Carnivorous Plants Greenhouse, you will pass an area covered with shade cloth. Most of these plants you see in the hanging baskets are epiphyllum (commonly called orchid cactus). These members of the cactus family are native to the humid jungles of Central and South America. In Greek epiphyllum means "upon the leaf" because it appears that flowers grow directly from the leaf tip. Instead the “leaves” are actually flattened stems, as epiphyllum have no 'real' leaves. (*Follow the paved path north to the 1st of the greenhouses, the Carnivorous Plants Greenhouse. After exiting the 1st greenhouse continue north along the path to the entrance to the second greenhouse, the Tropical Greenhouse*).

STOP 5. CARNIVOROUS PLANTS GREENHOUSE. The Carnivorous Plants Greenhouse contains the Arboretum’s collection of carnivorous plants. Commonly called pitcher plants, the Arboretum houses many different species within the genus *Nepenthes*. Native to the steamy tropics of Southeast Asia and Africa, *Nepenthes* are vines with (usually) long leaves tipped with a tendril ending in a pitcher. Although the often colorful pitcher may look like a flower, it is actually a leaf that has been modified into a pitfall trap. In general, the pitchers of these plants lure insects with the odor of nectar. Once inside, the insect cannot escape because of the smooth walls coated with a slippery wax. Eventually, the insect falls into the water and its struggles to escape stimulate the release an enzyme that will digest the insect. The plant is then able to absorb the nutrients and distribute them to other parts of the plant.

This greenhouse is also home to many varieties of showy begonias, ferns, bromeliads, and strands of soft grey-green Spanish moss (*Tillandsia usneoides*). Spanish moss (not a true moss-it has flowers!), as well as many of the orchids, ferns, and bromeliads you will see in the Tropical Greenhouse, is an epiphytic plant. Epiphytes or “air plants” are not

rooted in the soil, but instead grow attached to other living plants. Epiphytes should not be confused with parasitic plants as they do not harm the host plant. Epiphytes have various adaptations that allow them to absorb moisture from the air and nutrients from organic debris on their support plant.

STOP 6. TROPICAL GREENHOUSE. As you enter the warm, humid Tropical Greenhouse you will see orchids and other tropical plants in a jungle-like setting. The orchid collection contains over 1,700 species making it one of the largest species collections of orchids in the world. Look closely at one of the orchids and you will notice a colored or spotted "lip" which tells pollinators where to enter.

At the north end of the Tropical Greenhouse, look to the ground on the left side of the east door to see the unusual turtle plant. As you leave through the west door, please note the vine crawling overhead on the wire. That is the vanilla orchid. The fruit (vanilla bean) is an elongate, seed pod about 5-10 inches long. About 8-9 months after flowering, the pod turns black and gives off a strong aroma. *Exit the west door and notice the orange bird of paradise (the official flower of the city of Los Angeles) and the much taller giant bird of paradise (not a banana tree). Now go across the road into the Australian section*

STOP 7. THE AUSTRALIAN SECTION. The vegetation along the walkway as you enter the 19 acre Australian section is characteristic of Australian Chaparral. Plants in this section do very well because the climate that produces Australian chaparral is very similar to the climate in Southern Californian. This section is also home to many species of Eucalyptus bottlebrush, and the interesting Bunya-Bunya tree or *Araucaria bidwillii*. *See if you can spot one of the huge cones.* As you visit the section, please stroll along The Rainbow Dream Snake path. The Dream Snake is an interpretation of the Aboriginal creation story, and was designed to incorporate children's mosaic tiles and art work. Please feel free to gently touch and smell the variety of plants in the Australian section.

Notice the display bulletin boards that tell you about some of the interesting plants and animals that come from Australia.

Return to the east entrance and walk south along the paved road to the entrance to the Madagascar Spiny Forest.

STOP 8. THE MADAGASCAR SPINY FOREST. Eighty percent of the plants found in Madagascar are found nowhere else in the world. The plants in this section have special adaptations that allow them to live in a harsh, drought-prone environment. These adaptations include extended root systems that take in water from a wide area, trunks and branches that are able to store water, as well as spines to protect it from water-seeking animals, small leaves or no leaves, and waxy or hairy coverings that prevent water loss.

See if you can find a Pachypodium. What are two adaptations that allow it to survive in a very dry area? If you guessed a water storing trunk and spines, you are correct, but there is another use for the spines other than protection. When dew or fog condenses on the spines, it drips to the ground where it is quickly absorbed by shallow roots!

Since the arrival of humans in Madagascar, more than 90 percent of the original forest has disappeared. Unfortunately, forest destruction on the island is continuing at alarming rates, causing many of the unique plants you see here to be considered rare and/or endangered. *Continue along the road toward the south, and enter the South African Section.*

STOP 9: SOUTH AFRICAN SECTION. Walk along the cement path and see the large collection of Aloes and other succulents. There are over 250 species of Aloes in the world, mostly native to Africa. Although most Aloes have some medicinal or commercial value, the most commonly known is the *Aloe barbadensis* (*Aloe vera*).

All Aloes are semitropical succulent plants, and may be grown outdoors in areas where there is no chance of freezing. Older specimens may bloom, producing a tall stem covered with bright colored flowers. Aloe flower nectar is a favorite of hummingbirds!

After exiting this section, you will go left (east) and go back to the intersection in front of the Peacock Café. Follow the road south past the gift shop and tram stop to the entrance to the tropical forest. When you reach the intersection where the road “T”s at the tropical forest, enter on the dirt path, and walk through the forest heading in a westerly (right) direction.

STOP 10: TROPICAL FOREST. The tropical forest stretches four acres along the north side of Baldwin Lake. The Arboretum tropical forest contains a large collection of tropical and sub-tropical plants. Plants found in warm areas with abundant rain fall are often large (to capture as much sunlight as possible), waxy, and may have “drip tips” to quickly shed water (so that bacteria and fungi do not grow). *How do these leaves compare with the ones from plants that live in desert areas? Can you find a leaf longer than your arm?*

Some of the plants that look like small palm trees are actually part of the Arboretum cycad collection. Cycads are cone-bearing plants (gymnosperms) related to conifers. Cycads are either male or female, thus producing either pollen bearing cones or seed bearing cones. *Can you find a cycad cone?* Gymnosperms were the first seed-bearing plants on earth, evolving long before plants with fruits and flowers. Other gymnosperms you will see in the Tropical Forest are redwoods and cypresses. As you walk, you will find many interesting plants. *Can you find a plant with red or purple leaves? Can you find a tree with a green (photosynthetic) trunk?* You will also see the world’s fastest growing plant: bamboo. Even though bamboo grows very tall and may have a very hard stem, it is actually a grass (can you find joints that all grasses have?) and not a tree. By the lake you will see many ducks, coots, Canada geese, perhaps a heron or egret, and living in the pond, carp, koi, and several species of turtles.

*Exit the forest at the west end and go immediately to the Children's Node (garden). It is located near the fenced "roots and shoots" garden. Please note that there are **restrooms** immediately north of the "roots and shoots" garden.*

STOP 11: THE CHILDREN'S NODE (GARDEN). In this specialty garden you will see a giant turtle, a rosemary maze, a couple of low-arching tunnels and a bamboo blind where you can spot wildlife in the upper lagoon. Notice the footprints of some local wildlife.

Leave the Children's Node and visit the tule pond.

STOP 12: THE TULE POND. The Tule (pronounced too-lee) Pond is the home to various birds, fish, and turtles. Tule Pond and Baldwin Lake (across the paved road) are the only natural water features in the arboretum, and were formed by the same tectonic events that created Tallac Knoll. Tule Pond was named for the tule (giant sedge) growing along its banks. These were used by the Tonga people for construction of their thatched homes. Near the pond are several willows which were important for food and shelter. Also, the Indians found that by chewing on the inner willow bark or leaves, they could relieve themselves of aches and pains. Later, the chemical that made these people feel better was isolated and we know it today as the active ingredient in aspirin!

Across the road, just south of Tule Pond, is the 7-acre Meadowbrook Section. Enter the dirt path just past the bridge, adjacent to a small turtle pond.

STOP 13: MEADOWBROOK Enjoy the walk along the Meadowbrook path as it meanders along through some interesting vegetation. Look for several species of maple, including the red maple (*Acer rubrum*) and Japanese maple (*Acer palmatum*). Continue on that path until you come to the koi pond (to the left). Cross the bridge and visit Catawampus.

STOP 14: CATAWAMPUS. Constructed by artist Patrick Dougherty with the help of volunteers in February 2009, this sculpture is formed entirely of woven willow! Catawampus is located near our grove of Magnolia trees. If you are lucky enough to visit when they are in bloom, take a look at the flowers. *Magnolia* is an ancient genus. Having evolved before bees appeared, the open, primitive flowers developed to encourage pollination by beetles.

After a visit to Catawampus, you may cross the bridge and visit the Grace Kallam Perennial Garden or stay on the grass and head south to the Meyberg Waterfall.

STOP 15: THE MEYBERG WATERFALL This is a nice spot to take a break. Listen to the water tumbling over the rocks below. Every hour 48,000 gallons of water cascade over the falls

into the pool where it is recycled to the top of the falls. The large colorful fish in the pool are koi, members of the carp family and related to goldfish. The steps to the right of the waterfall lead to Tallac Knoll. There you will find some of the most spectacular views of the Arboretum and the San Gabriel mountains

At this point you have an option of going up the steps to Tallac Knoll or walking east to the Herb Garden.

STOP 16: TALLAC KNOLL (OPTIONAL) Take steps to the right of the falls up to the top. Tallac Knoll was formed by movement of the Raymond Hill Fault over a period of millions of years. In this area you will find a pond with black catfish and *Gambusia* (mosquito fish) that eat mosquito larva. On the south side of the pond is a large stand of native Engelmann oaks (*Quercus engelmannii*) looking very much as it would have 200 years ago.

On the west side of Tallac Knoll, you will find a sunken bowl surrounded by many interesting varieties of plants such as a carob tree, coffee plants (*Coffea arabica*), a banyan fig, with extremely interesting aerial roots, Abyssinian bananas, and many flowering tropical and subtropical plants.

After exploring the Tallac Knoll area, head back down the steps, turn right (east) and go straight to the herb garden.

STOP 17: HERB GARDEN. The herb garden is laid out in many sections, including medicinal plants, plants for cooking, and dyes. As you walk through the garden, gently touch and smell some of the plants. *Can you find leaves that smell like lemons? Roses? Mint?*

Note: *Touching and smelling of the plants should always be done under adult supervision.*

In the herb garden look for our state flower, the California Golden Poppy (spring only).

At the east end of the garden find the fossil fish imbedded in the pavement.

After exiting the herb garden, cross the road and enter the red and white coach barn.

STOP 18: COACH BARN. Elias Jackson "Lucky" Baldwin (April 3, 1828 – March 1, 1909) was a prominent California businessman and investor. Having generated most of his wealth through both savvy and lucky mining investments (for which he received his nickname), Baldwin accumulated large landholdings of 63,000 acres in southern California, where the communities of Arcadia and Monrovia are now located. He developed the showcase Santa Anita Ranch and promoted the area for settlement.

Lucky Baldwin housed his private carriages plus those of his guests in this opulent barn. Baldwin's stylish "Tally Ho" carriage, purchased at the Philadelphia Centennial Exposition in 1876, is today on display in the west room.

Generous stall space was provided for carriage horses, and convenient hay and grain chutes were fed directly from the loft above. The Victorian dog house just outside the Coach Barn once sheltered bull mastiffs, Lucky Baldwin's ranch guard dogs.

Look for pictures of Lucky Baldwin and his horses. Also, look for the wine press, used for crushing grapes.

After leaving the Coach Barn, head northeast toward the Queen Anne Cottage.

STOP 19: QUEEN ANNE COTTAGE. Lucky Baldwin's Queen Anne Cottage was built in 1885-86 as a honeymoon gift for his fourth wife, 16-year-old Lillie Bennett. This marriage did not last and it was soon converted by Baldwin into a memorial to his third wife, Jennie Dexter, who had died in 1881. A stained glass portrait of Jennie can be seen on the front door.

The Baldwin cottage (the designation "Queen Anne" was added in later years in reference to its architectural style) was the Santa Anita Ranch guest house. Friends, relatives, and business associates of Lucky Baldwin, including stars from the Baldwin Theater in San Francisco, partook of ranch hospitality until E.J.'s death in 1909. Cooking, dining facilities, and Baldwin's personal quarters were located in a modernized eight-room version of the old adobe house found on the property at the time of purchase (1875).

The stained glass windows, marble fireplaces, and black walnut doors are all original features of the cottage as are the bathroom fixtures and the exterior marble walkway. Both the Coach Barn and the Queen Anne Cottage are listed on the National Register of Historic Places.

Look inside at the parlor and find two paintings of Jennie Dexter and also the music room with numerous musical instruments. Notice the toys and dolls of the period found in the bedroom.

From the Queen Anne Cottage go south around the lake to the Hugo Reid Adobe area.

STOP 20. TONGVA HOMES. The earliest known residents of what is now The Arboretum were the Native American group known as the Tongva. The village known as Aleupkigna or "the place of many waters" was located near the ponds to take advantage of the abundant water, food, and materials for clothing and shelter. The Tongva slept in brush shelters such as these, constructed of willow poles and thatched with layers of tule reeds. Rabbit skin mats provided bedding and small fires kept the occupants warm. Note the openings at the peaks of the shelters to vent the hearth fires inside.

One of the most populous and powerful groups in Southern California, the Tongva were skilled hunters and gatherers surviving off of small animals, acorns, and other seeds and fruit. They had no pottery, but were very skilled basket weavers. Although they did not plant crops, use iron tools, and had no cattle or horses until the arrival of the Spanish,

the Tongva were among the few New World peoples who regularly navigated the ocean in plank canoes.

*After leaving this area, please take an **optional** trip south across the paved road to the Depot via a paved path going south. Look for the sign.*

STOP 21: HUGO REID ADOBE. Hugo Reid, a Scottish adventurer and naturalized Mexican citizen, was the first private owner of the 13,319 acre Rancho Santa Anita. Reid, married to a Tongva/Gabrielino woman Bartolomea de Comcrabit (also known as Victoria), constructed the first permanent building on Rancho Santa Anita. This California Landmark was constructed in 1840 with the help of Tongva/Gabrielino laborers and was representative of a building style then common in Southern California. It was built of sun-dried adobe blocks made by mixing clay soil, water, and a straw binder. The roof was made of rawhide-lashed carrizo cane smeared with brea (tar) and the walls were white-washed. Open fire pits (braziers) provided heat for each room. Lighting sources included candles and whale oil lamps. Most of the cooking for the Reid family was done in the outdoor courtyard at the adobe stove and oven. Much of what is known today about the Tongva people is because of Hugo Reid's writings. Reid documented the Tongva/Gabrielino lifestyle utilizing what he learned from his wife and her family. Just before his death in 1852, Reid produced a series of 22 "Letters" each telling a chapter in the story of the native people. These "Letters" would be printed by the local *Los Angeles Star* newspaper at the time, and they are used even today as the Tongva attempt to reestablish their cultural identity.

NOTE: The adobe and its courtyard are currently undergoing renovation.

STOP 22: THE DEPOT (OPTIONAL). This train depot was originally located on today's Colorado Blvd. near Baldwin Ave. (the site of the present 210 Freeway). It was moved to The Arboretum in 1968 in a "Save the Depot" effort spearheaded by the local Arcadia businesses and residents. The depot, built in 1890 to serve Rancho Santa Anita and the nearby community of Sierra Madre was an active passenger and freight depot for 50 years. At its peak, five passenger and numerous freight trains stopped daily. Local residents picked up mail in the waiting room post office. The depot, including upstairs living quarters, has been refurnished with turn-of-the-century house wares and period railroad equipment to recreate the ambiance of the bustling station stop it once was. *Why would a train depot be so important?*

The depot, costing an estimated \$5000 to build, was described by a local newspaper in 1890 as "an elaborate two-story depot built with one hundred thousand bricks from the nearby Lucky Baldwin brick yard".

*After visiting the **depot**, head back to the paved road and head north towards the entrance. If you have time, stop and study the huge bamboo and palm collection. Be certain to stop at the lake and gaze across at the Queen Anne Cottage.*

STOP 23: LAKESIDE VIEW OF THE QUEEN ANNE COTTAGE. As you stop and gaze out over Baldwin Lake, you might want to take time to review your trip to The Arboretum and get your last look at the lake. The lake has been the site of many movies, including the first movie shot here (*Tarzan*). Other recent movies filmed at The Arboretum include *Anaconda*, *Dave*, and *Meet the Fockers*. Notice the rocks lining the edge of the lake; these were placed there in the 1800's when Lucky Baldwin had the lake dredged. This is also a good spot to view and identify some of the waterfowl. *Can you spot a wood duck? A mallard duck? A heron? A Canada goose?*

Walk past the lake a few steps until you come to the cycad collection and a topiary of a Tyrannosaurus Rex.

STOP 24: THE CYCADS AND THE TYRANNASAURUS REX. Notice the small (about 6 feet tall) plants that look like palms (sometimes known as sago palms). The “Age of Dinosaurs” has also been termed “the Age of Cycads.” To imagine what earth looked like during that time, imagine ferns, towering fern trees, cycads, and low growing mosses. Noticeably absent would have been any Angiosperms, the plant group characterized by fruit and flowers, as these did not evolve until about the time the last of the dinosaurs disappeared. Interestingly enough, cycads were some of the first plants to develop adaptations to protect themselves from large herbivores (dinosaurs). These defense mechanisms include tough spiny leaves and toxins within the body of the plant.

Today, these slow growing cycads persist looking much like they did when the dinosaurs roamed. Although cycads are protected by international law, many species are considered rare and endangered.

Can you spot the dinosaur? If you were going to make a movie and create an area that looked just like what it looked like during the “Age of Dinosaurs”, what plants would you include? Which plants would you leave out? Why?

When you leave the area, take the paved road north back to the entrance. There you will find water fountains, restrooms, and a gift shop. Students are allowed into the gift shop 10 at a time with a supervising adult.

Thank you for coming to The Arboretum. We hope you found your trip to be fun and educational.

*Please take a moment to complete the evaluation below.
We encourage students to re-visit The Arboretum with their parents.*