



TROPICAL
PLANT WALK

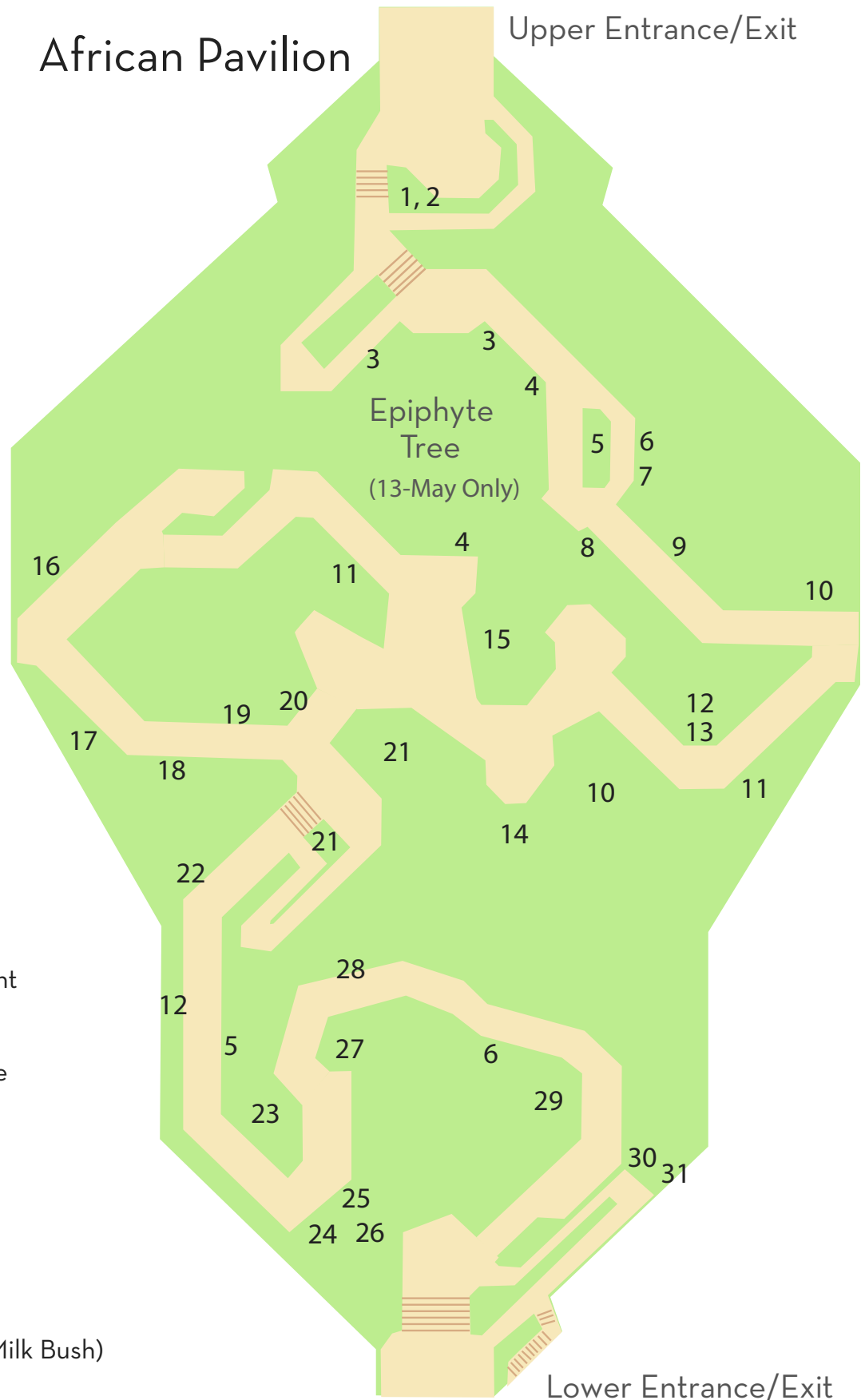
AFRICAN PAVILION



North Carolina Zoo

Asheboro • *Connect your life to wildlife*

1. Dracaena (Corn Plant)
2. Snake Plant
3. Bleeding Heart Vine
4. African Fern Pine
5. Yellow Bauhinia
6. Alligator Pepper
7. Coffee Tree
8. Cola Tree (Kola)
9. Calabash Nutmeg
10. Banana
11. Queen Sago Palm
12. African Violet
13. Orchids
14. Date Palm
15. African Oil Palm
16. Swizzle Stick Tree
17. Leea
18. African Voacanga
19. Egyptian Star Flower
20. African Hibiscus
21. Fig Tree
22. African Embossed Plant
23. Zululand Cycad
24. Madagascar Periwinkle
25. Sprenger Asparagus
26. Psychotria
27. Royal Poinciana
28. Ferns
29. Tamarind
30. Pencil Tree (African Milk Bush)
31. Bird of Paradise





1. DRACAENA, CORN PLANT *Dracaena* ssp.

Family: Liliaceae–Lily family

Origin: Africa

Dracaena plants normally live on the forest floor where they receive very little sunlight. You will find many of them in the African Pavilion. Their tolerance for low light makes these plants suitable for use under the roof canopy. Dracaena plants are popular indoors and the NASA Clean Air Study notes that they help remove indoor air pollutants.



2. SNAKE PLANT *Sansevieria trifasciata*

Family: Agavaceae–Agave family

Origin: West Africa

These plants are native to tropical West Africa and have rhizomes—or roots that grow sideways beneath the soil. The rhizomes spread out from the parent allowing new plants to sprout, forming dense stands of snake plants. Leaves of this species, like other *Sansevieria*, produce strong fibers called bowstring hemp that were once used for bowstrings, mats and nets. Snake plants are common houseplants, popular because they tolerate low light and need little water. They also help remove pollutants from indoor air.



3. BLEEDING HEART VINE *Clerodendrum thomsoniae*

Family: Verbenaceae–Verbena family

Origin: West tropical Africa

Look up! Bleeding heart is a twining vine which flowers most of the year in the African Pavilion. The common name of this plant, “bleeding heart vine,” comes from the appearance of a drop of blood coming from the heart-shaped calyx part of the flower.



4. AFRICAN FERN PINE *Afrocarpus gracilior*

Family: Podocarpaceae—Podocarp family

Origin: East Africa

African fern pines are important timber trees. Wood from this tree is used for building lumber, paneling, flooring and furniture. In Florida, African fern pines grow as ornamental landscape trees.



5. YELLOW BAUHINIA *Bauhinia tomentosa*

Family: Fabaceae—Pea family
Origin: Tropical Africa

Yellow bauhinia produces beautiful yellow flowers with maroon centers. The flowers are rich in pollen and nectar which attract many butterflies and bees in its native habitat. Bauhinia is a host plant for many butterfly species in Africa. The wood is used for rafters in huts and the leaves are used to make yellow dye.



6. COFFEE TREE *Coffea arabica*

Family: Rubiaceae—Coffee family
Origin: Tropical Africa

The dried seeds or “beans” of this tropical African native are roasted and brewed to make one of the most important beverages in the western world. Coffee is now grown extensively in South American and coffee grown under the natural shade of canopy trees preserves forest and animal (particularly bird) habitat. Hummingbirds, swallows, warblers, orioles, tanagers and other migratory and native birds find a safe haven in the remaining forests of shade coffee plantations.



7. ALLIGATOR PEPPER *Aframomum* ssp.

Family: Zingiberaceae—Ginger family
Origin: Tropical Africa

Alligator pepper is one of West Africa’s most frequently used medicinal plants. Leaves, stems, roots and fruit are used to treat many illnesses and are also added to magnify the effects of other medicinal plants. The leaves are used to wrap food before cooking and also in soups and stews to impart flavor. All parts of this plant have a sweet pepper smell. *Seeds for this plant came from the Limbe Botanical Garden in Cameroon as part of the N.C. Zoo’s international field programs.*



8. COLA TREE (KOLA) *Cola acuminata*

Family: Sterculiaceae—Cacao family
Origin: Tropical Africa

Cola nuts have been part of West African culture for centuries, where it is used ceremonially, presented to tribal chiefs or guests. Cola nuts are chewed for their stimulating effect and to ease hunger. The nuts and bark are used medicinally. Cola nuts were originally used to flavor cola soft drinks, though most mass produced beverages today use artificial flavoring.



9. CALABASH NUTMEG *Mondodora myristica*

Family: Annonaceae—Custard-apple family

Origin: West Africa

Calabash nutmeg is an English name given to this West African tree. The unusual flowers are fragrant and produce large fruits with edible seeds. Once roasted, the aromatic seeds are ground as a condiment with flavor resembling nutmeg. The powdered seed is used as a medicine for digestive ailments and headaches and can treat external sores. Chewing the root eases the pain of toothaches. Wood from this tree is good for carpentry and for crafting walking sticks. Seeds for this plant came from the Limbe Botanical Garden in Cameroon as part of the N.C. Zoo's international field programs.



10. BANANA *Musa acuminata*

Family: Musaceae—Banana family

Origin: Africa, Asia, Australia

Edible bananas are derived from this species and have a complicated origin involving hybridization and mutation. Bananas are grown worldwide in every humid tropical region making them the world's fourth largest fruit crop. While bananas are often called trees, they are actually large herbaceous plants with fleshy, not woody, upright stems. Each mature stem begins to die after it sets fruit and a new stem arises from the plant's base to replace it. Banana leaves are widely used for serving food, lining cooking pits and wrapping food for cooking.



11. QUEEN SAGO PALM *Cycas circinalis*

Family: Cycadaceae—Cycad family

Origin: Old World Tropics

Cycads are among the most primitive of living seed plants, and are remnants of ancient flora abundant in the Mesozoic Era, when dinosaurs roamed the earth. The seeds of the Queen sago palm float, which accounts for its widespread distribution.



12. AFRICAN VIOLET *Saintpaulia* ssp.

Family: Gesneriaceae—Gesneriad family

Origin: East Africa

African violets are part of a group of plants that come from the tropics. Other relatives are gloxinia, cape primrose, lipstick and goldfish plants. These small, colorful plants are easy to care for and are quite popular indoors.



13. ORCHIDS *Orchidaceae* ssp.

Family: Orchidaceae—Orchid family

Origin: North and South America, Asia, Africa, Oceania, Europe and temperate Asia

The beautiful shapes of orchids that make them so attractive for houseplants come from their unique type of reproduction. Orchids developed specialized scents and shapes to attract specific animal partners needed for pollination. For example, the Darwin orchid of Madagascar has very long spurs that contain pollen. The plant relies on the hawk moth for pollination. This moth has a tongue over 14 inches long and is the only pollinator that can reach the nectar at the base of the orchid's spur. Look for this orchid to bloom in the winter months in the African Pavilion.



14. DATE PALM *Phoenix dactylifera*

Family: Palmae—Palm family

Origin: West Asia and North Africa

Female date palms produce fruit known as dates, valued for their high sugar and potassium content. Dates are often the only staple food available for the people of desert and arid lands, and as such are vital to millions throughout North Africa and the Middle East. Evidence of cultivation of this plant dates back to 4000 B.C. Date palm leaves are made into mats, screens, baskets and used in religious ceremonies.



15. AFRICAN OIL PALM *Elaeis guineensis*

Family: Palmae—Palm family

Origin: Tropical Africa

Oil palms originated in the tropical rain forests of West Africa. Palm oil, derived from the seeds, is used in the manufacture of cooking fats, soaps, candles and as a lubricant in other industries. In Africa, palm oil is widely used for cooking and to mix and apply medicines to the skin. Palm wine is made from the sap and the huge leaves are used to decorate for holidays and ceremonies. Leaflets are woven into baskets and the center stems are stripped and bundled into brooms.



16. SWIZZLE STICK TREE *Rauvolfia vomitoria*

Family: Apocynaceae—Dogbane family

Origin: Tropical Africa

This tree is used medicinally in many African countries. The bark has purgative properties, hence the species name *vomitoria*, and the tree is also used by some traditional healers to treat psychiatric patients. Various *Rauvolfia* species are used world wide by the pharmaceutical industry to treat hypertension. Seeds for this plant came from the Limbe Botanical Garden in Cameroon as part of the N.C. Zoo's international field programs.



17. LEEA *Leea guineensis*

Family: Vitaceae—Grape family

Origin: Tropical Africa

New growth on the leea plant is much lighter in color than the dark green foliage, and flower clusters appear throughout the year. Research verifies some anti-inflammatory effects of this plant. An extract from the leaves can treat enlarged spleen in children. *Seeds for this plant came from the Limbe Botanical Garden in Cameroon as part of the N.C. Zoo's international field programs.*



18. AFRICAN VOACANGA *Voacanga africana*

Family: Apocynaceae—Dogbane family

Origin: Tropical Africa

Voacanga, one of western Africa's popular medicinal trees, treats various ailments and is used in healing rituals. Non-medical uses for this tree include using the wood ash as a salt substitute and using the fruit in hunting to attract animals. *Seeds for this plant came from the Limbe Botanical Garden in Cameroon as part of the N.C. Zoo's international field programs.*



19. EGYPTIAN STAR FLOWER *Pentas lanceolata*

Family: Rubiaceae—Coffee family

Origin: Tropical Africa to southern Arabia

This annual plant grows readily in North Carolina during warmer months. The clusters of tubular red, pink, lilac or white flowers provide nectar for hummingbirds and butterflies.



20. AFRICAN HIBISCUS *Hibiscus schizopetalus*

Family: Malvaceae—Mallow family

Origin: Tropical East Africa

“Japanese Lantern” is the name occasionally give to this African species of *Hibiscus*. Although not native to Japan, its flowers droop on long stalks in a manner reminiscent of Japanese lanterns.



21. FIG TREE *Ficus* ssp.

Family: Moraceae—Mulberry family

Origin: Tropical Africa

Fruit bats and primates are among the animals that depend on figs. Some birds are almost entirely fig eaters when the fruits are plentiful. Because these resources are important to so many animals, the health of an entire rainforest can depend upon fig trees. Any plant—like the fig tree—or animal species this important to an ecosystem is called a **keystone species**. In architecture a keystone is a critical piece at the top of an arch or vault. Removing a keystone will result in the structure collapsing. If a **keystone species** disappears from its natural habitat, food webs can experience a similar collapse.



22. AFRICAN EMBOSSED PLANT *Cerestis mirable*

Family: Araceae—Arum family

Origin: Nigeria to Congo

Like many members of the huge Arum family, *Cerestis* has different stages of leaf development. In the juvenile stage, leaves have a particular pattern. Stems “run” or grow across the forest floor until the plant begins to climb a host tree. Once *Cerestis* climbs, the leaves mature—they grow larger and the juvenile pattern fades. Some botanists think this change in coloration is a method of fooling animals that might eat the leaves. The pattern mimics plants less appealing to grazing animals.



23. ZULULAND CYCAD *Encephalartos ferox*

Family: Cycadaceae—Cycad family

Origin: Mozambique, South Africa

Though common names may infer a kinship between cycads and palms, the two are not closely related. The cycad’s distinctive appearance includes a crown of large compound leaves atop stout trunks. Cycads are ancient plants that were common millions of years ago. Today only a few species exist—many are facing extinction in the wild but are protected by international agreements.



24. MADAGASCAR PERIWINKLE *Catharanthus roseus*

Family: Apocynaceae—Dogbane family

Origin: Madagascar

This common tropical plant is native to the island of Madagascar located off the coast of Africa. Extracts from this plant contain chemical compounds (called alkaloids) that are useful in medicine. The principle alkaloids are vinblastine and vincristine. One inhibits growth of certain tumors and the other treats leukemia in children. When combined with chemotherapy, these compounds produce 80% remission rates in Hodgkin’s disease and 99% remission rates in acute lymphocytic leukemia. These naturally derived alkaloids are far more effective than the synthetic compounds.



25. SPRENGER ASPARAGUS *Asparagus densiflorus* ‘Sprengerii’

Family: Asparagaceae—Asparagus family

Origin: South Africa

Calling Sprenger asparagus an “asparagus fern” is common, though it is not accurate. These plants are not ferns and produce seeds rather than spores. Members of the genus *Asparagus* have flowers and berries, and one species has edible shoots harvested as an important vegetable. This African plant has become widely used for houseplants and landscapes.



26. PSYCHOTRIA *Psychotria camptopus*

Family: Rubiaceae—Coffee family

Origin: Tropical Africa

Flowers of the psychotria have unique long, red peduncles (a stem-like structure) that grow until the cluster of flowers at the end reach the ground. Seeds for this plant came from the Limbe Botanical Garden in Cameroon as part of the N.C. Zoo’s international field programs.



27. ROYAL POINCIANA *Delonix regia*

Family: Fabaceae—Pea family

Origin: Madagascar

Royal poinciana, or flamboyant tree, has been described as one of the most conspicuous, colorful flowering trees seen in the tropics. This large tree naturally assumes a spreading umbrella shape with wide spreading roots and provides wonderful shade from the sun.



28. FERNS *Polypodium, Platycerium* ssp.

Family: Polypodiaceae—Fern family

Origin: Tropics

Many of the ferns you see throughout the Pavilion are epiphytes and native to the tropical areas including Africa. Epiphytes are plants that grow above the ground on trees, vines or rocks to take advantage of brighter sunlight. They are not parasites—only using the host for support. These plants have special roots that attach to the host. Epiphyte roots are uniquely suited to gather and store water and nutrients with no contact between the plant and soil. Staghorn ferns and rabbit’s foot ferns are examples of epiphytes. Some types of ferns may even form colonies—if conditions are right the spores will germinate in surrounding areas.



29. TAMARIND *Tamarindis indica*

Family: Fabaceae—Pea family

Origin: Tropical Africa

Native to tropical Africa, the tamarind tree grows wild throughout the Sudan. The fruit was well known to Egyptians and Greeks in the 4th Century B.C. The pulp from the fruit is an important ingredient in chutneys, curries and sauces, including some brands of Worcestershire and barbeque sauces. Sugared tamarind pulp is often prepared as a confection and tamarind ade has long been a popular drink in the tropics.



30. PENCIL TREE,
AFRICAN MILK BUSH *Euphorbia* ssp.

Family: Euphorbiaceae—Spurge family

Origin: Africa, Madagascar, India

There are over 2,000 species of euphorbias. Most are from Africa and the island of Madagascar. All of these plants produce a milky sap that thickens on exposure to air. Many are succulents which means that they can store water in their roots, stalks and leaves. These plants have a unique flower structure, demonstrated by the genus *Poinsettia*, a leafy herbaceous species native of Mexico that is widely used as a greenhouse-grown Christmas plant.



31. BIRD OF PARADISE *Strelitzia reginae*

Family: Strelitziaceae—Strelitzia family

Origin: Africa

This plant is famous for unique, brightly colored flowers that resemble birds. In South Africa, it is known as the crane flower. These beautiful blooms are sold by the millions as cut flowers.