

A Guide to Ginger Garden at Singapore Botanic Gardens



This walking trail will take you through the amazing world of gingers. The Ginger Garden was conceptualised in 1999 and officially launched on 18 October 2003. An area of one hectare showcases over 550 species, varieties and horticultural cultivars of the plants of the ginger order (Zingiberales).

Get up close and personal with a diverse collection of gingers, as you walk through major exhibits, organised according to geographical origin or plant uses. You will see edible gingers used in daily cooking as well as ornamental plants with spectacular flowers and foliage. Look out for rare gingers on display, some of which are endangered species.



The Torch Ginger

The Torch Ginger (*Etlingera elatior*), is one of the iconic ornamentals found all over the tropics. It is native to Southeast Asia, but its exact origin remains unknown. Its showy, waxy-looking inflorescence, of which the colour may range from pure white to vibrant bright red, has been the inspiration for the Ginger Garden logo. Locally the Torch Ginger is known as *Kantan*. The young flower buds and tender inner parts of the leafy shoot are used as a spice or vegetable in various Asian dishes, while the ripe fruits can be eaten raw or processed as sweets. The Torch Ginger also has numerous medicinal properties.

Opening hours:

5am – 12 midnight daily

Estimated walking time:

30 - 45 min

Since its inception in 1859, the Singapore Botanic Gardens has been a major centre for research into both local and introduced plants including gingers. Two key figures were H. N. Ridley, the first Director, and R. E. Holtum, the third Director. Both of them extensively studied plants in Southeast Asia, described numerous ginger species and published major accounts, which are still the standard works for the area.

Gingers and their relatives are an important part of tropical flora. Some species are more than 10m tall, while others may be tiny plants not exceeding a few centimetres in height. They prefer the warm and wet climate of the humid tropics and occur throughout the equatorial zone. However, a number of species also thrive in monsoonal parts of Africa and Asia. The Asia-Pacific region is the area with the greatest diversity of species. Of the eight families of the ginger order, only the true gingers (Zingiberaceae), prayer plants (Marantaceae) and spiral gingers (Costaceae) are found throughout the tropics.



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How to get to Singapore Botanic Gardens

By Foot:

Access to the Gardens is easy through its major entrances: Tanglin Gate, Nassim Gate, Cluny Park Gate and Bukit Timah Gate.

By MRT:

The nearest MRT station is Botanic Gardens MRT Station. From the station, you may enter the Gardens through Bukit Timah Gate.

By Car:

Car parking facilities are available at the Botany Centre, Visitor Centre, Bukit Timah Core, Jacob Ballas Children's Garden and along Tyersall Avenue.

By Bus:

Via Holland Road
SBS Transit 7, 105, 123, 174
SMRT 75, 77, 106
Via Bukit Timah Road
SBS Transit 48, 66, 151, 153, 154, 156, 170, 186
SMRT 67, 171

How to get to the Ginger Garden

At the Gardens' major entrances, look out for mapboards and directional signs to the Ginger Garden. The walk takes about 10 minutes from Nassim Gate, 15 minutes from Tanglin Gate and Cluny Park Gate, and 20 minutes from Bukit Timah Gate.

Highlights:

- Diverse collection of gingers, organised according to geographical origin or plant uses
- Pleasant walk on the lush, verdant grounds of the Singapore Botanic Gardens
- Popular photograph spots at the scenic waterfall

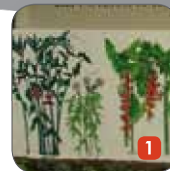
Tips for enjoying the Ginger Garden

At any time throughout the year, some gingers will flower, but the best period to visit the Ginger Garden is between June and August. If you want to see the whole spectrum, you must visit this garden regularly – you will always find something new.

Ginger flowers are very delicate and generally only last a single day. They look their best in the morning or early afternoon, wilting quickly towards the end of the day. Some gingers flower at the tops of their leafy shoots at about eye level. Many, however, flower directly from their rhizomes – look on the ground and under the leaf litter.

Few gingers flower during the night. Those that do, usually emit strong and pleasant scents to attract their pollinators. It is best to catch this scent during a late afternoon stroll.

Don't forget to look up! Some gingers are perched on the trees or grow in rock crevices.



What are Gingers?



Beautiful Gingers



Pacific



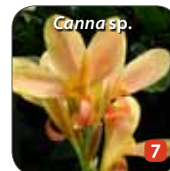
Asia



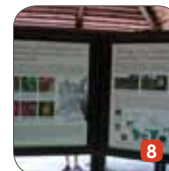
Africa



Ethnobotany



Tropical America



The Ginger Shelter



Waterfall



Banana Gallery



Gingers of Indochina



Native Gingers of Singapore

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What you can see on this trail

→ 1 What are Gingers? (Zingiberales mural)

This first stop gives you an introduction to more than 1,500 species of plants closely related to the common spice – ginger (*Zingiber officinale*). These plants belong to the ginger family (Zingiberaceae). Together with seven other closely related plant families – bananas (Musaceae), heliconias (Heliconiaceae), bird-of-paradise plants (Strelitziaceae), orchidanthas (Lowiaceae), spiral gingers (Costaceae), cannas (Cannaceae) and prayer plants (Marantaceae) – they are grouped into the ginger order (Zingiberales). The term “gingers” is thus often used in a broad sense for all these plants, amounting to nearly 3,000 species.

→ 2 Beautiful Gingers

Scattered throughout the Ginger Garden are some of the most attractive species of the Ginger Family, mostly those available in the horticultural market, be it for their brightly coloured inflorescences (e.g. heliconias) or beautifully ornamented leaves.

Halia Restaurant, named after the Malay name for ginger, is located in the middle of the Ginger Garden and offers fine dining in the midst of lush greenery. The various ginger species are creatively introduced into some dishes and beverage creations, providing accents of ginger aroma and taste from flowers, fruits and rhizomes.

→ 3 Pacific

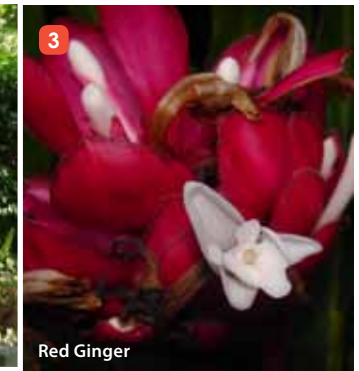
The Pacific region consists of thousands of islands and is still relatively unexplored botanically. This area is particularly rich in members of the ginger family.

Several common ornamental gingers, e.g. *Alpinia purpurata* (known as Red Ginger), *A. luteocarpa* (known as Bamboo Ginger) or *Tapeinochilos ananassae* are from there. If you are lucky, you may spot the bright orange flowers of *Riedelia*.

→ 4 Asia

The ginger family is most diverse in Asia with more than 1,200 species and therefore areas showcasing the Asian gingers are located in various parts of the Ginger Garden. Try to find delicate flowers of *Scaphochlamys kunstleri*, stunning epiphytic *Hedychium longicornutum* and young bronze-coloured leaves of *Plagiostachys* species. See if you can spot the bright orange-red flowers on the ground belonging to a spiral ginger *Cheilocostus globosus*.

A special treat is the small family of intriguing orchidanthas, which are only found in Asia. Their flowers appear near the ground, look like orchids and smell like rotten fungi or dung to please particular species of beetles which pollinate them.



Red Ginger



Heliconia stricta



Calathea warszewiczii



Bamboo Ginger



Scaphochlamys kunstleri



Hedychium longicornutum



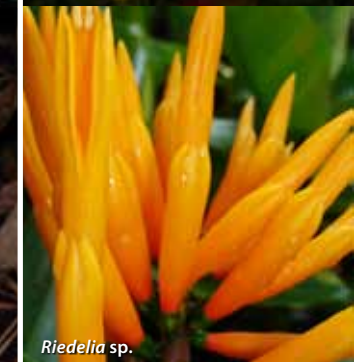
Tapeinochilos ananassae



Plagiostachys sp.



Cheilocostus globosus



Riedelia sp.

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→ 5

Africa

The African exhibit showcases members of the five families native to Africa, with the strongest representation of the prayer plant family, particularly the genus *Marantochloa*. These shrubby prayer plants flower whole year round and have small, but beautiful flowers. Can you find at least four different species? Traveller's Palm (*Ravenala madagascariensis*), *Strelitzia reginae* and *S. nicolai* all belong to the bird-of-paradise family, while *Costus lucanusianus* and *Costus dubius* are typical African spiral gingers.

→ 6

Ethnobotany*

Everyone knows Ginger (*Zingiber officinale*), Turmeric (*Curcuma longa*) and Cardamom (*Elettaria cardamomum*), but many may not have seen the plants from which these spices are derived. Other gingers commonly sold in Singapore markets and used in many local delights are Torch Ginger alias Kantan (*Etilingera elatior*), Greater Galanga (*Alpinia galanga*), Lesser Galanga (*Kaempferia galanga*) and Chinese Keys, known also as Krachai (*Boesenbergia rotunda*). Many other plants of the ginger order are sources of spices, medicines, vegetables, staples, dyes, fibre and many more.

*Ethnobotany is the study that documents how plants are used by various cultures, e.g. as foods, medicines, tools or raw materials, in textiles (fibres, dyes), in rituals and in various other ways.

→ 7

Tropical America

Six families of the ginger order can be found in tropical America. The colourful heliconias and cannas as well as numerous prayer plants with their beautifully designed leaves are signature plants of this region. Watch out for incredibly hairy *Heliconia velegeria* and often-flowering *H. longiflora* as well as prayer plants *Calathea warszewiczii* and *C. lanata*. You can also spot several fabulous spiral gingers including the tiny *Monocostus uniflorus* and ever flowering *Costus woodsonii*.

→ 8

The Ginger Shelter

Take a breather and rest at the Ginger Shelter which offers a shady spot. Eight colourful panels provide more information about gingers and will reveal some of the amazing facts about pollination and seed dispersal, ecology and distribution as well as history of ginger research in Singapore Botanic Gardens.

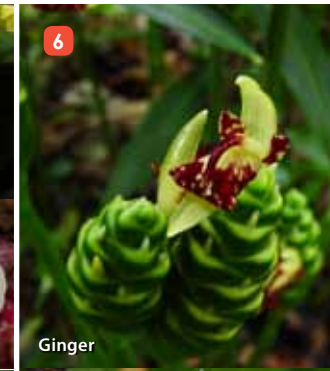
→ 9

Waterfall

The waterfall is one of the favourite wedding photograph spots among couples in the Gardens. Above the waterfall, there is a large patch of white-flowered, sweet-scented *Hedychium coronarium* (pictured on page 2). In front of the waterfall is *Thalia geniculata*, a prayer plant with drooping violet flowers happily growing in the water.



Marantochloa spp.



Ginger



Thalia geniculata



Strelitzia reginae



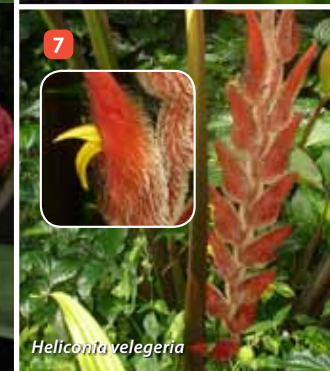
Lesser Galanga



Turmeric



Costus lucanusianus



Heliconia velegeria



Calathea warszewiczii



Costus dubius



Monocostus uniflorus



Costus woodsonii

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→ 10 Banana Gallery

Take a break, enjoy the beautiful mural by Michele Piccoli and explore the very special role of bananas in the tropics. Every bit of the banana plant can be eaten or used.

Small, big, fat, long, yellow, green or red – scoring as favourites amongst fruits, dozens of local banana varieties are available in markets across Asia. Boiled or fried plantains are valuable staples. When thinly sliced and fried, they are delicious chips-like snacks. Young stems and inflorescences can also be turned into delicious vegetable dishes. The leaf sheaths of some species are a source of fibre, while banana leaves are used for serving food in various parts of Asia. The 'trunks' of banana plants are formed by overlapping leaf sheaths and are called pseudostems. There is no wood in them, so even plants of several metres tall can be chopped down with a mere machete. Bananas are, in fact, just huge herbs. Watch out for pink and hairy fruits of *Musa velutina*, yellow lotus-like inflorescence of *Ensete lasiocarpum*, and small and rare Malaysian banana *Musa gracilis*. Check out if the Thousand Fingers Banana has indeed a thousand fruits!

→ 11 Gingers of Indochina

The flora of Cambodia, Laos and Vietnam is one of Singapore Botanic Gardens' prime research

focus areas. This region is among the richest yet botanically least explored parts of Asia. The beautiful Scarlet Banana (*Musa coccinea*) is now widely cultivated, but very rare in the wild as its original habitat is quickly disappearing.

Look for large yellow flowers on the ground, which belong to a spiral ginger *Cheilocostus tonkinensis*. *Alpinia conchigera* with small but beautiful flowers which turn into bright red and round fruits and *Alpinia oxymitra* (pictured on page 2) with cream-white cones of waxy-looking flowers are found in all three countries.

→ 12 Native Gingers of Singapore

Just about 100 years back, gingers and its allies were common in Singapore's forests. Unfortunately, out of 26 native species, 11 are now considered nationally extinct. Eight species, including *Hornstedtia conica* and *Alpinia aquatica* are critically endangered. Among five endangered species, the two prayer plants *Phrynium parvum* (pictured on page 2) and *Stachyphrynium latifolium* are currently known to grow only at one and three locations respectively. Several native ginger species including the four mentioned above are now being successfully propagated as part of a project which aims to re-introduce our native gingers to parks and nature reserves.



We hope you have enjoyed your walk at the Ginger Garden. To obtain another DIY trail-guide on a walking trail in one of Singapore's parks, visit www.nparks.gov.sg/eguides.

All photos featured in this guide are by Jana Skornickova and Cai Yixiong.



Gain an even deeper appreciation of gingers with this pocket-sized guide book, available at the Library Shop and the Garden Shop for S\$9.50.