

MEDIA FACTSHEET

The Singapore Botanic Gardens Learning Forest



Topography of the Singapore Botanic Gardens Learning Forest

Approximately 10 hectares in size, the Learning Forest is located at the new Tyersall-Gallop Core of the Singapore Botanic Gardens. The Learning Forest is home to more than 100 species of birds, 20 species of amphibians and reptiles, 19 species of butterflies, and 7 species of mammals and over 500 species of plants.

The Learning Forest is designed to integrate with the Gardens' existing 6-hectare Rain Forest to form an enlarged forest habitat. Together, it forms a contiguous swathe of forest through the heart of the Gardens, creating more opportunities for the pollination and seed dispersal of native forest trees. The Learning Forest will strengthen *ex situ* conservation of plants native to the region and create additional habitats for native wildlife. It will also buffer the Rain Forest and its surroundings from changes in the microclimate due to the urban environment. The Learning Forest is an extensive restoration project of the wetlands and forests that formerly surrounded the Gardens. Taking reference from maps dating back as far as the early 19th century, plans were developed from detailed analyses of the soils, topography and hydrology of the site. Through extensive surveys, these former habitats were restored to conserve a wide variety of native flora and fauna.

In recognition of its ecological significance, NParks announced in 2015 that the Learning Forest comprising 10 hectares of secondary forest, and 4 hectares of surrounding forest area, had been designated as a Nature Area. This brings the entire Nature Area within the Singapore Botanic Gardens to 20 hectares (including the 6-hectare Rain Forest). Critically endangered native species like *Memecylon cantleyi*, are found in both the Rain Forest and Learning Forest, evident of an existing ecological connection across the two tracts of forest. Both these areas are habitats for representative biodiversity found in Singapore and the region, and are also important reference for the ongoing research work of restorative ecology around the region.

Highlights of the Learning Forest

The Learning Forest features a network of boardwalks and elevated walkways that allow visitors to explore various habitats, from the wetlands to the rainforests. Highlights of the Learning Forest include a bambusetum featuring 30 species of bamboo found in Asia; over 50 species of wild fruit trees with familiar relatives, such as species from the soursop (Annonaceae), jackfruit (Moraceae), lychee (Sapindaceae) and mango (Anacardiaceae) families; a collection of trees that exhibit the phenomena of cauliflory and ramiflory; and trees with interesting forms and barks.

Visitors can also learn about swamp forest ecosystems at the Keppel Discovery Wetlands, and walk amongst a collection of some of the tallest tree species in Southeast Asia at the SPH Walk of Giants. *For more information about the Keppel Discovery Wetlands, please refer to [Annex B](#). For more information about the SPH Walk of Giants, please refer to [Annex C](#).*

The Learning Forest is next to the 8-hectare Gallop extension, which will be opened to the public by 2018. When ready, visitors can look forward to exploring a Dipterocarp arboretum, the Forest Conservation Interpretive Centre and Natural History Art Gallery. *For more information about the Gallop extension, please refer to [Annex D](#).*

Variety of flora found in the Learning Forest


1. Bamboo

No.	Name/Picture	Description
1	Buluh betung (<i>Dendrocalamus giganteus</i>) 	Grows to huge sizes, among the largest known for bamboos. Culms used in construction and internodes for buckets.
2	Wadan (<i>Dinochloa scabrada</i>) 	Twining and clambering bamboo forming veritable thickets around trees. Endemic to Borneo (Sabah and E Kalimantan).

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3	<p>Timorese black bamboo (<i>Bambusa lako</i>)</p> 	<p>Medium-size bamboo with dark green culms which typically turn purplish black with age. Used in ornamental planting.</p>
4	<p>Buluh lemang (<i>Schizostachyum brachycladum</i>)</p> 	<p>Medium-size bamboo yielding thin-walled tubes lined with banana leaf and used for cooking <i>lemang</i>, a Malay glutinous rice preparation.</p>

Natives of Singapore


5	<p><i>Vietnamosasa darlacensis</i></p> 	<p>Medium-size bamboo with tight clumps of slender stems and bushy, elegant fine foliage. Of ornamental value.</p>
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Credit for photos of bamboo: Wong Khoon Meng, National Parks Board

2. Wild Fruit Trees

No.	Name/Picture	Description
1	<p>Penarahan Gajah Tree (<i>Horsfieldia sucosa</i>)</p>  <p><i>Credit: Cerlin Ng</i></p>	<p>A relative of the nutmeg tree, it bears succulent, bird-attracting fruits that are the size of ping pong balls.</p>
2	<p>Keppel Tree (<i>Stelechocarpus burahol</i>)</p>	<p>The light brown fruits of this tree are said to have been a favourite of Javanese princesses in the past. Ants, butterflies and bees are attracted to the fruits of this tree.</p>

	 <p><i>Credit: Patricia Yap</i></p>	
3	<p>Green Tampang (<i>Artocarpus lacucha</i>)</p>  <p><i>Credit: Cerlin Ng</i></p>	<p>This endangered native tree is valued for its edible fruit.</p>
4	<p>Asam Gelugor (<i>Garcinia atroviridis</i>)</p>	<p>This native fruit tree can grow up to 30m in height and is critically endangered in Singapore. Its fruits are round and up to 10cm in diameter.</p>

	 <p data-bbox="331 869 889 905"><i>Credit: Ang Wee Foong, National Parks Board</i></p>	
5	Redan (<i>Nephelium maingayi</i>)	This is a small, hairless relative of the Rambutan (<i>Nephelium lappaceum</i>). It grows in the rainforests of Malaysia and Indonesia.

3. Trees with interesting forms and barks


No.	Name/Picture	Description
1	Indian Prune (<i>Flacourtia rukam</i>)	The Indian Prune has strong woody spines that take a variety of forms, from simple needle-like spines to multiple-branched ones.



	 <p><i>Credit: Flora Fauna Web, National Parks Board</i></p>	
2	<p>Pelawan (<i>Tristaniopsis whiteana</i>)</p>  <p><i>Credit: Shee Zhi Qiang, National Parks Board</i></p>	<p>The Pelawan has colourful, smooth bark that peels off like paper. Pelawan trees form a distinct belt of vegetation along river systems in the Malay Peninsula.</p>
3	<p>Gelam (<i>Melaleuca cajuputi</i>)</p>	<p>This tree has white, flaky bark and its trunk is spongy to the touch. Kampong Glam is named after this tree.</p>



		
4	<p>Dammar Minyak (<i>Agathis borneensis</i>)</p>  <p><i>Credit: Julius Fu</i></p>	<p>This tree has dimpled bark that flakes off in patches to create a jigsaw-puzzle pattern on the trunk. It can grow to about 50 m tall.</p>

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Biodiversity found in the Learning Forest

No.	Name/Picture	Description
1	Greater Racket-Tailed Drongo (<i>Dicrurus paradiseus</i>)  <i>Credit: Francis Yap</i>	This bird is recognised by its two distinctive tail streamers, and is able to mimic the sounds made by other birds and animals in the forest.
2	Stork-billed Kingfisher (<i>Pelargopsis capensis</i>)  <i>Credit: Francis Yap</i>	Singapore's largest kingfisher, measuring about 35cm in length, can be found at the edges of inland waterbodies. It is easily recognised by its red bill and feet.
3	Greater Bamboo Bat (<i>Tylonycteris robustula</i>)	One of the smallest bats in Singapore, it has a flattened skull which allows it to squeeze through tiny openings (about 5mm) in bamboos.

	 <p><i>Credit: Robert Teo, National Parks Board</i></p>	
4	<p>Paradise Tree Snake (<i>Chrysopelea paradisi</i>)</p>  <p><i>Credit: Myron Tay</i></p>	<p>This snake is capable of gliding from tree to tree. By flattening its body, it forms a concave surface to trap air underneath, allowing it to glide up to 100m.</p>
5	<p>Many-lined Sun Skink (<i>Eutropis multifasciata</i>)</p>	<p>Sporting black stripes down its brown body, this lizard is active during the day and often found among the leaf litter and undergrowth of forest floors. Unlike other lizards, the females give birth to live young instead of laying eggs.</p>

	 <p><i>Credit: Cyrena Lin, National Parks Board</i></p>	
6	<p>Crab-eating Frog (<i>Fejervarya cancrivora</i>)</p>  <p><i>Credit: Noel Thomas, National Parks Board</i></p>	<p>This frog feeds on crabs and other small animals. It is able to tolerate salty water and is one of few species of frogs that can be found in mangroves.</p>
7	<p>Malayan Box Terrapin (<i>Cuora amboinensis</i>)</p>	<p>This native terrapin can be found in streams, ponds and reservoirs in forested areas such as the Central Catchment Nature Reserve and the Singapore Botanic Gardens. It is easily recognisable from the two yellow stripes on the side of its head.</p>