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1. Introduction to Green Wave

Green Wave is an ongoing global biodiversity education project that empowers children and youths to make a difference – one school, one project, and one step at a time. The programme brings together children and youths from around the world to raise awareness about biodiversity, and the importance of protecting our natural environment. As part of the campaign, students around the world will plant locally important trees in their school compound annually at 10 am on 22 May, the International Day for Biological Diversity. In Singapore, this programme is organised by NParks as part of the Community in Nature (CIN) initiative.



Find out more about Green Wave at greenwave.cbd.int

Through the programme, students can learn about the importance of trees. Trees provide a range of goods and ecosystem services, such as producing oxygen, improving air quality, providing habitats for wildlife, reducing soil erosion and serving as a carbon sink by absorbing carbon dioxide from the atmosphere. They also provide shade for smaller plants and support the growth of climbers and epiphytes, thus creating habitats for a rich variety of fauna. Hence, trees greatly increase biological diversity in urban environments and promote our city's ecological resilience.

In line with the aim to restore nature back into our city, students can also discover how trees and plants are able to counter the urban heat island effect to offer a cooler and more comfortable environment for all. Green Wave also serves as a platform for students to engage in active stewardship of the environment through the "One Million Trees" movement, in which a million trees will be planted across Singapore over the next 10 years in partnership with the community. These greening efforts will ensure that Singapore continues to be a highly liveable city, in the face of future challenges like increased urbanisation and climate change, as we move towards becoming a City in Nature.

Green Wave 2020 is supported by HSBC through our registered charity, the Garden City Fund, as part of our continual efforts to raise awareness and appreciation of Singapore's natural heritage.

2. Green Wave 2020 Plant Species

As part of Green Wave 2020, NParks will be providing the following tree or plant to participating schools on a first come, first served basis. Each school can indicate which species they would like to plant. Schools that do not have space to accommodate a tree can request for a potted plant instead.

<u>Legend for plant care instructions</u>





Shrub



Prefers full sun



Prefers semi-shade



Requires little water



Requires moderate watering



Ornamental foliage



Caterpillar food plant



Roadside tree / palm



Bee-attracting



Fruit or vegetable



Birdattracting



Native to Singapore



Ornamental flowers



Suitable for seaside planting

For more information about trees and other plants in Singapore, you can check out NParks Flora&FaunaWeb at florafaunaweb.nparks.gov.sg and trees.sg

a. Tree species

Ardisia elliptica

Common names: Seashore Ardisia, Mata Pelandok, Mempenai, Rempenai, Shoebutton Ardisia, Mata Pelanduk, Penah, Periah, Buah Letus, Cempenai, Daun Bisa Hati, Mata Ayam, Mata Itek

Height: Up to 8 m tall





























NParks Flora&FaunaWeb link: https://www.nparks.gov.sg/florafaunaweb/flora/2/7/2727

Ardisia elliptica is a native shrub or small tree that is naturally found along the banks of estuaries and sandy or muddy shores. It produces flowers which grow in clusters, and possesses drooping waxy, pink flower buds. Its fruits are berries with a flattened tip that turn from reddish-purple to black when ripe, with each berry containing a single seed. A. elliptica is also the preferred food plant for caterpillars of the Malayan Plum Judy (Abisara saturate), Dark Malayan Sixline Blue (Nacaduba calauria) and the Bagworm Moth (Chalioides sumatrensis).

The essence of its leaves or roots can be used to treat heart pains, and its leaves and shoots can also be consumed as food.



The pink flowers of *A. elliptica* grow in clusters. (Photo credit: Mervyn Tan, NParks Flora&FaunaWeb)



The reddish-purple fruits of *A. elliptica* turn black when ripe. (Photo credit: Robert Teo Chee Hin, NParks Flora&FaunaWeb)



A. elliptica has alternate, stalked leaves shaped like an ellipse. Its new leaves are reddish in colour. (Photo credit: Mervyn Tan, NParks Flora&FaunaWeb)

b. Potted plant species

Rhodomyrtus tomentosa

Common names: Kemunting, Rose Myrtle

Height: Up to 3 m tall



















NParks Flora&FaunaWeb link: https://www.nparks.gov.sg/florafaunaweb/flora/2/3/2388

Rhodomyrtus tomentosa is an evergreen shrub that grows up to 3 m tall. It naturally grows along sandy river banks and seashores, as well as in secondary forests. Its flowers have magenta pink petals which fade to white, and it also has numerous stamens at its centre, resembling a cherry blossom. Its oblong fruits contain many seeds, are velvety to the touch and are purple when ripe. The sepals of the flowers remain intact even after fruiting.

The leaves of *R. tomentosa* are arranged opposite to each other in stalks, with oblong leaf blades that appear white. The leaves also possess three distinct, longitudinal veins. The fruits of R. tomentosa are dispersed by many bird species, and the plant itself is a food source for the caterpillars of the moth species Carea varipes and Trabala vishnou. Its fruits can be used to treat diarrhoea and dysentery, while its crushed leaves are used to bandage wounds. A decoction of its roots and leaves has traditionally been used to treat stomach aches, or as a form of restorative medicine after childbirth.



The velvety, oblong fruits of R. tomentosa turn from green to purple when ripe. Its sepals can be seen at the tip of the fruit. (Photo credit: Vicky Lim Yen Ngoh, NParks Flora&FaunaWeb)



The bright pink flowers of R. tomentosa are reminiscent of cherry blossoms, which makes it a popular ornamental plant. (Photo credit: Joyce Foo Ming Yen, NParks Flora&FaunaWeb)



R. tomentosa grows to up to 3 m tall, and is suitable for planting along streetscapes, parks and gardens as it can adapt to hot and dry conditions. (Photo credit: Jane Li, NParks Flora&FaunaWeb)

3. Timeline of Events

Step 1

Deadline to register for Green Wave: 3 June 2020

• Register your school at the <u>Biodiversity Week for Schools website</u> to plant trees or obtain a potted plant provided by NParks.

Step 2

• Briefing slides for Biodiversity Week for Schools activities will be made available for download to registered schools that wish to learn more about the individual activities.

Step 3

Mid to end-June 2020 (weekdays only)

- Choose a tree or potted plant.
- Engage an NParks' contractor to deliver the tree or potted plant to your school. (Cost: \$15 for potted plant; \$20 for tree to be reimbursed after the programme)

Step 4 By 17 July 2020

- Plant your selected tree or place the potted plant in a suitable area within the school during Biodiversity Week.
- Share on the importance of plants and/or carry out the related activities with your students.
- Complete the post-activity survey and submit your photos to us at cin@nparks.gov.sg.
- Share your school's story at www.facebook.com/nparksbuzz (tag us @nparksbuzz and use #OneMillionTreesSG in the post) and/or www.greenwave.cbd.int.