自然科學之外的植物園

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“In natural science the principles of truth ought to be confirmed by observation.”

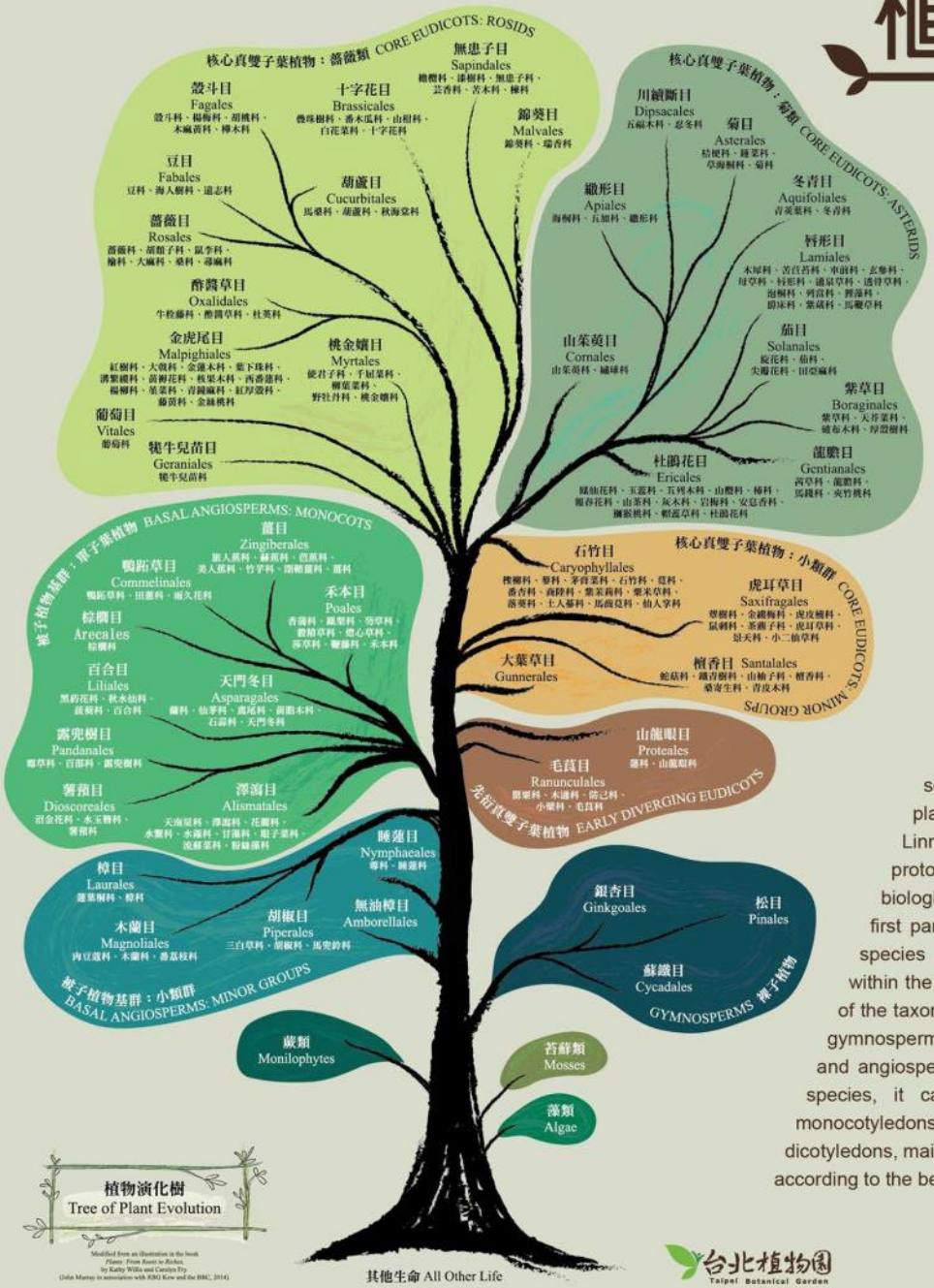
自然科學的真理，應該透過觀察來證實。

— Carl Linnaeus 林奈

Stambomen
Hortus
botanicus
Systeemtuin

植物分類園

Systematic Beds

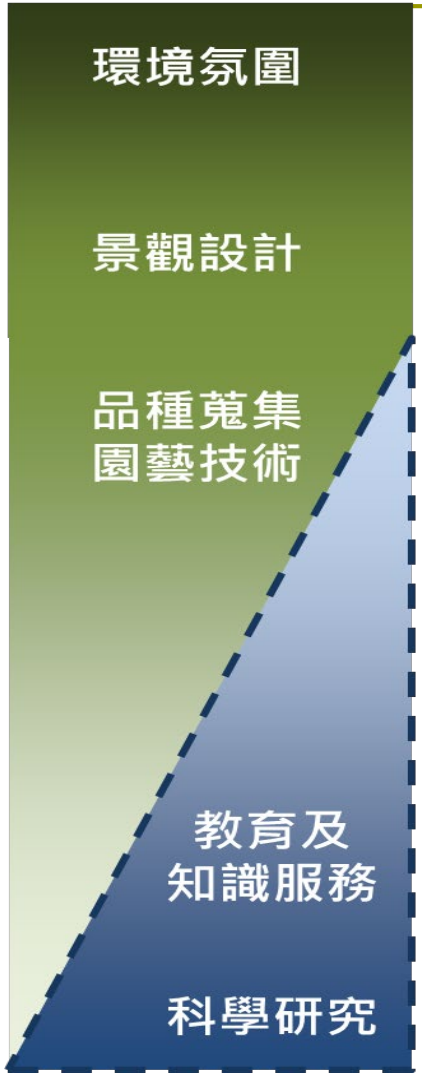


人類為有效利用植物資源、區別不同植物，因此透過給植物取名字方式，避免資源誤用及達到溝通目的。然而，由於風俗民情的差異，同一物種常有不同的俗名。植物學之父林奈氏採用二名法，即以植物屬名及種名之拉丁化名字為植物命名，避免地區俗名雜亂現象。植物分類園結合植物系統分類概念，將高等植物（又稱維管束植物）分成三大類：蕨類植物、裸子植物和被子植物。被子植物組成複雜，又可區分成雙子葉植物和單子葉植物。本展示區選擇台灣常見的雙子葉植物，以草本和灌木植物為主，依分類系統科別栽植展示，提供民眾學習植物分類系統之用。

In order to use plant resources efficiently, people name the plants to communicate and prevent misuse. However, as a result of cultural differences, different common names actually sometimes refer to the same species. Confusion of plant common names led the Swedish botanist, Carl Linnaeus, to develop a systematical naming protocols, which became foundations for the modern biological naming system of binomial nomenclature. The first part of the name identifies the genus to which the species belongs; the second part identifies the species within the genus. This garden is designed with the concept of the taxonomical system, dividing embryophytes into ferns, gymnosperms, and angiosperms. Because angiosperms include complicated species, it can be further divided into dicotyledons and monocotyledons. In this area, common Taiwanese dicotyledons, mainly shrubs and herbs, are displayed according to the belonging groups (families).

台北植物園 Taipei Botanical Garden

園區內涵



公園與社區庭園
Parks and yard gardens

花園
Flower gardens

園藝園
Horticultural gardens

植物園
Botanical gardens

學術型植物園
Academic botanical gardens

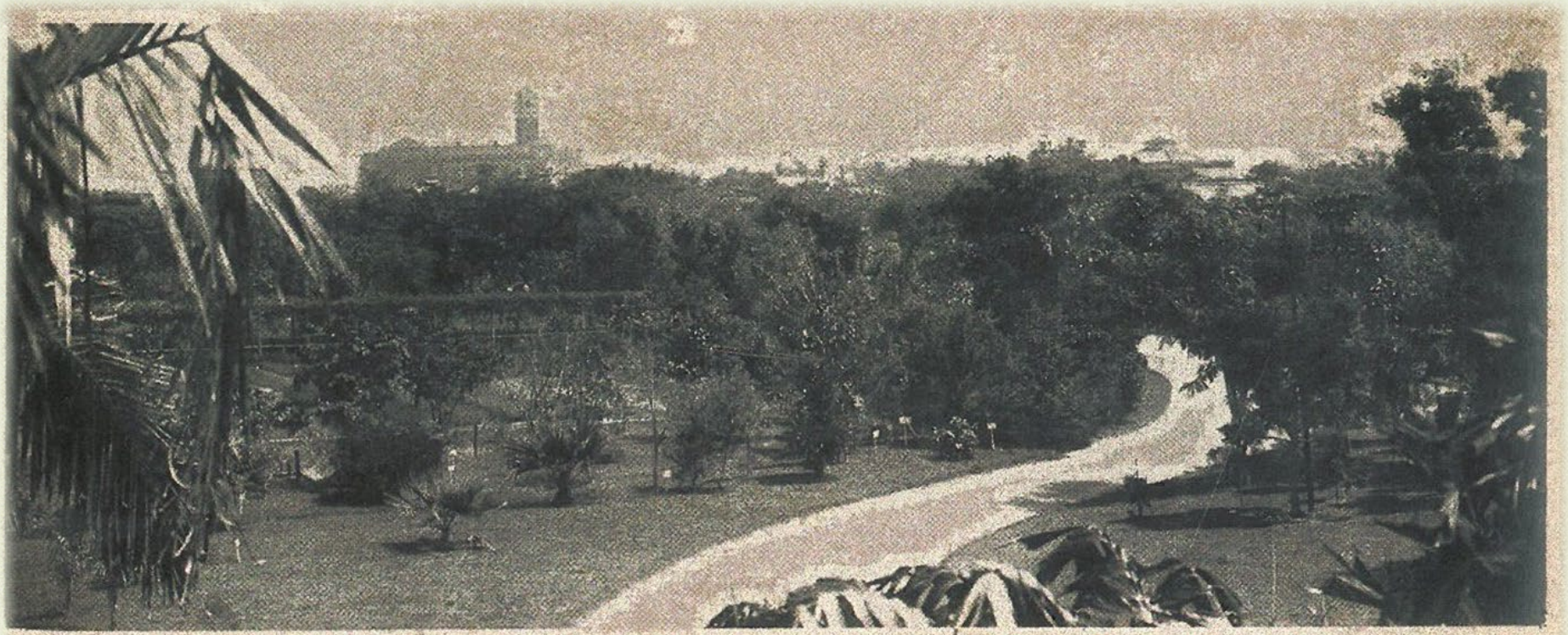
牧野植物園 小山鐵夫（Tetsuo Koyama）提出之植物園功能層級概念(2015)

記錄並監測植物


20062303
松科 臺灣油杉
Keteleeria davidiana var. formosana
20062303


臺灣油杉
松科 Pinaceae
Keteleeria davidiana (Franchet)
Beissner var. formosana Hayata
20062303

台北植物園 1923



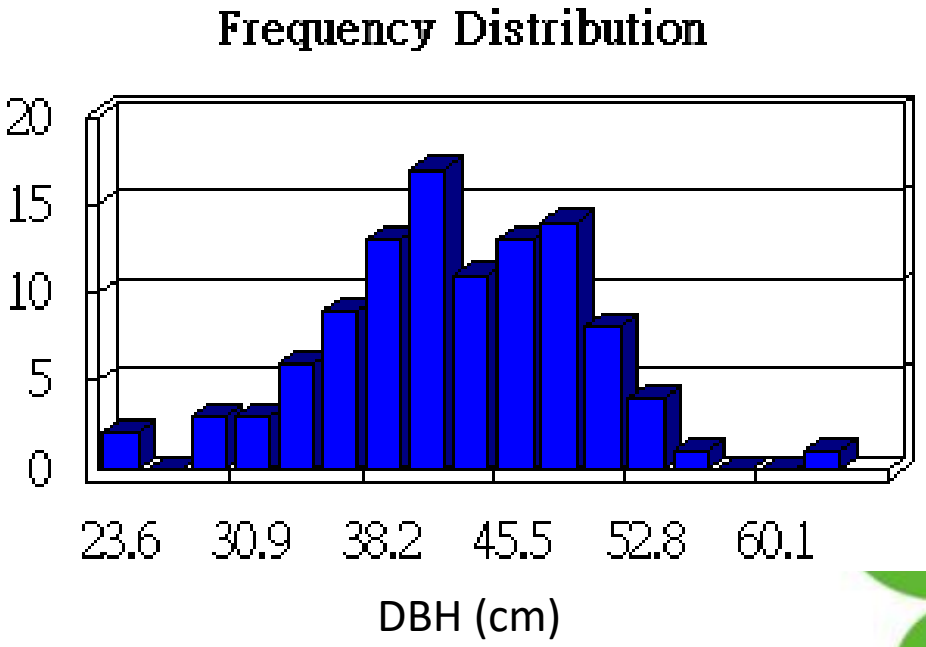
臺北苗圃植物園

NURSERY OF PIANTS, TAIHOKU, FORMOSA.


腊葉館 1924

Roystonea regia
大王椰子

- 105 individuals, DBH=43 ± 6.8 cm.
- Planted along the main trail.
- Being introduced from Hawaii by 今井兼次 in 1902 and grown in TPBG and HCTBG 恆春熱帶植物園.




2012


1930s

BGCI（國際植物園保育聯盟)

The Global Trees Campaign

In 1998 over 8,000 tree species, 10% of the world's total, were threatened with extinction according to The World List of Threatened Trees.

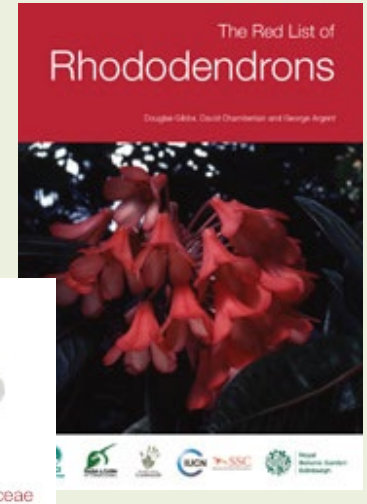
It is likely this figure has risen considerably since then. Destruction of woodland and forest and unsustainable felling of valuable timbers are causing the loss of many important species. Very few of these endangered trees are being conserved in the wild.

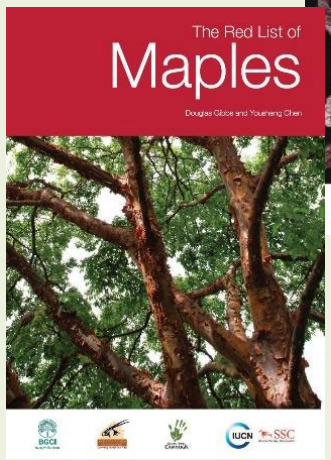
The Global Trees Campaign, a joint initiative between BGCI and Fauna & Flora International (FFI) in association with other partners around the world, is drawing attention to this global problem and finding solutions.

We aim to save the world's most threatened tree species and their habitats through provision of information, conservation action and support for sustainable use. The campaign focuses on trees as flagship species for conservation of ecosystems and landscapes, and enables local people to carry out rescue and sustainable use operations.

- The Red List of Rhododendrons
- The Red List of the Magnoliaceae
- The Red List of Oaks
- The Red List of Trees of Central Asia
- The Red List of Maples
- Red Listing Hydrangeas
- Trees at the top of the world
- Action plan for conserving *Zelkova* species
- Camellia conservation in China







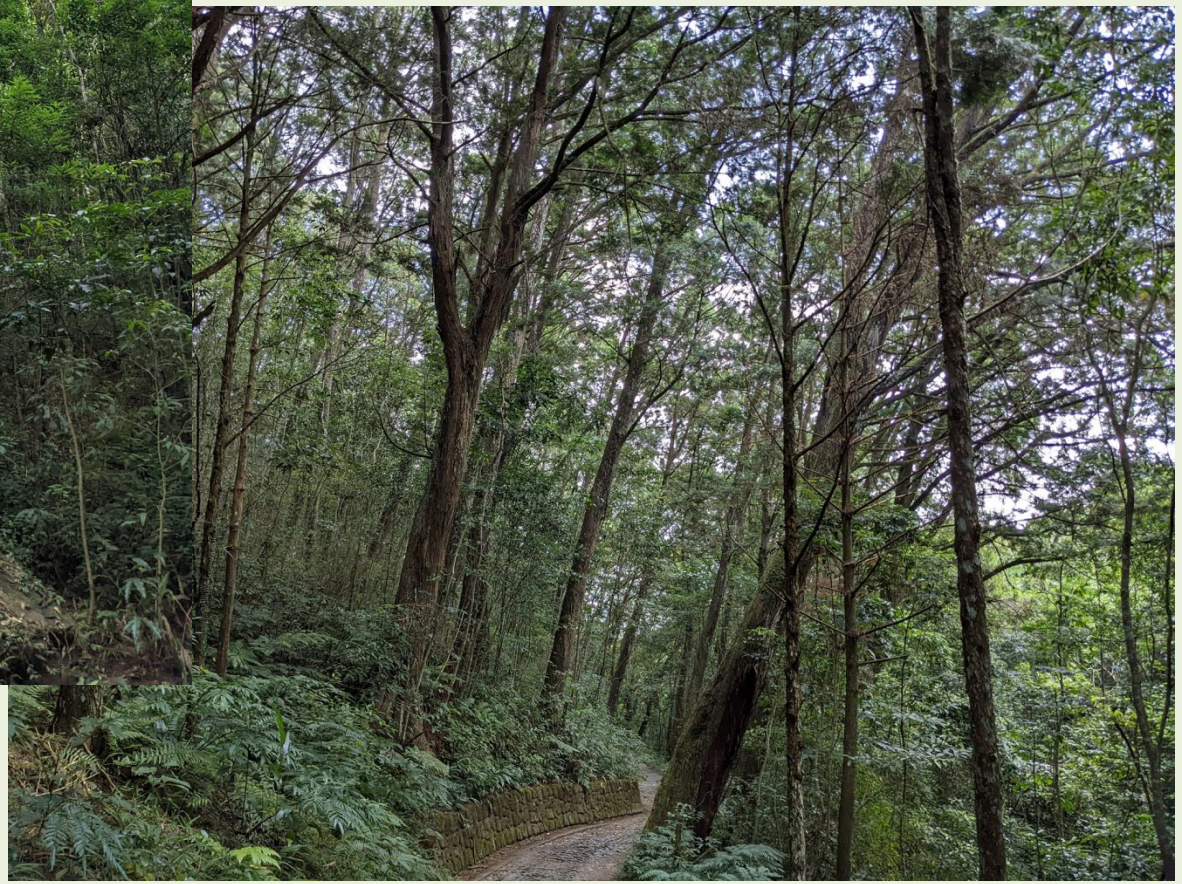
AUSTRÁLIA

“But if remedies were to be sought in the kitchen-garden, or a plant or a shrub were to be procured thence, none of the arts would become cheaper than medicine.” 若在花園的植物與灌木中找藥方，世間再沒有哪一門技藝會比醫藥更便宜。

— Pliny the Elder 《Natural History》老普林尼，古羅馬時期博物學家

L’ Orto BG, Padova

1545年世界首座植物園，義大利



森林療癒

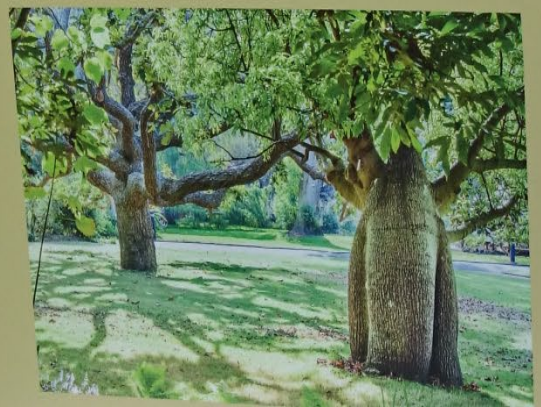
It's time to say goodbye

Like people, all living things have a life span. In a natural environment trees fall and collapse every day and their natural decline is a critical part of a healthy living ecosystem. Death in the forest provides opportunities for life. Decay organisms can complete their life cycle; valuable nutrients can be returned to the soil for other trees to use; new trees can grow in the space created — this is the natural cycle. In cultivation we manage this process differently.

These trees were planted at the end of the 19th century and are very close to the end of their life. Both trees are listed as highly significant on the Conservation Management Plan for the Royal Botanic Garden, and both are mentioned in 'A Guide to the Botanic Gardens, Sydney' written by director, JH Maiden in 1903.

Both trees are planned for removal in early 2015. We have not made this decision lightly. Our team of Arborists, headed by David Bidwell, have been managing the health of these trees for the last few years. David and his team have tried everything in their power to extend their lives, but their health has steadily declined and it is time to say goodbye. To ensure your safety while we honour these two Garden Centenarians we ask that you stay outside the boundary fence.

Please pay your respects as it is time to say goodbye to two of our beloved trees.



“In all things of nature there is something of the marvelous.” 自然中的一切事物都充滿奧秘。

— Aristotle 亞里斯多德，古希臘哲學家

Photo from Kew

Photo from the Huntington

When we try to pick out anything by itself, we find it is bound fast by a thousand invisible cords that cannot be broken, to everything in the universe.

當我們試圖單獨取出世間萬物之一，便發現它被上千條隱形的絲線，緊緊繫連著整個宇宙，任誰也無法將之割離。

—John Muir 穆爾，美國國家公園之父

植物與昆蟲

Plant-insect Interactions

昆蟲的授粉機制可能早在第一朵花出現前就存在，但授粉昆蟲和顯花植物的多樣性要到白堊紀晚期才隨著彼此間的交互作用開始大發生。許多植物與昆蟲強烈地依賴著對方。舉例來說，許多昆蟲藉由嚼食、潛蛀、吸食和造癭等方式自植物獲取養分，並幫助植物傳播種子與花粉。而植物可以藉由化學物質來抵禦植食性昆蟲，或是以養分吸引昆蟲授粉甚至捕食昆蟲以獲取養分。本園區展示包括蝴蝶食草的馬兜鈴科植物、擬態蝴蝶卵的西番蓮科植物、蜜源植物的澤蘭和薔薇屬植物以及造癭寄主植物，呈現多個經典的昆蟲和植物的共演化關係。

Although insect pollination was probably well-established before the first flower, the association between pollinating insects and angiosperms during the early Cretaceous period led to parallel radiations of angiosperms and insects into the late Cretaceous. Many plants and insects depend on each other. For example, insects consume plants by various ways such as chewing, tunneling, sucking and galling, but also help plants to transport seeds and pollens. On the other hand, plants produce chemicals to defend attacks from herbivorous insects or lure insects for pollination or nutrients. This garden exhibits selected plants that demonstrate the extraordinary evolutionary correlations with insects: pipe vines (the host plants of toxic swallow butterflies), passion fruit (egg-mimicry with butterfly eggs), *Eupatorium* and *Rosa* (nectar sources) and hostplants for gallers.

台北植物園
Taipei Botanical Garden

Aboriginal trial project, Royal Sydney Botanic Garden

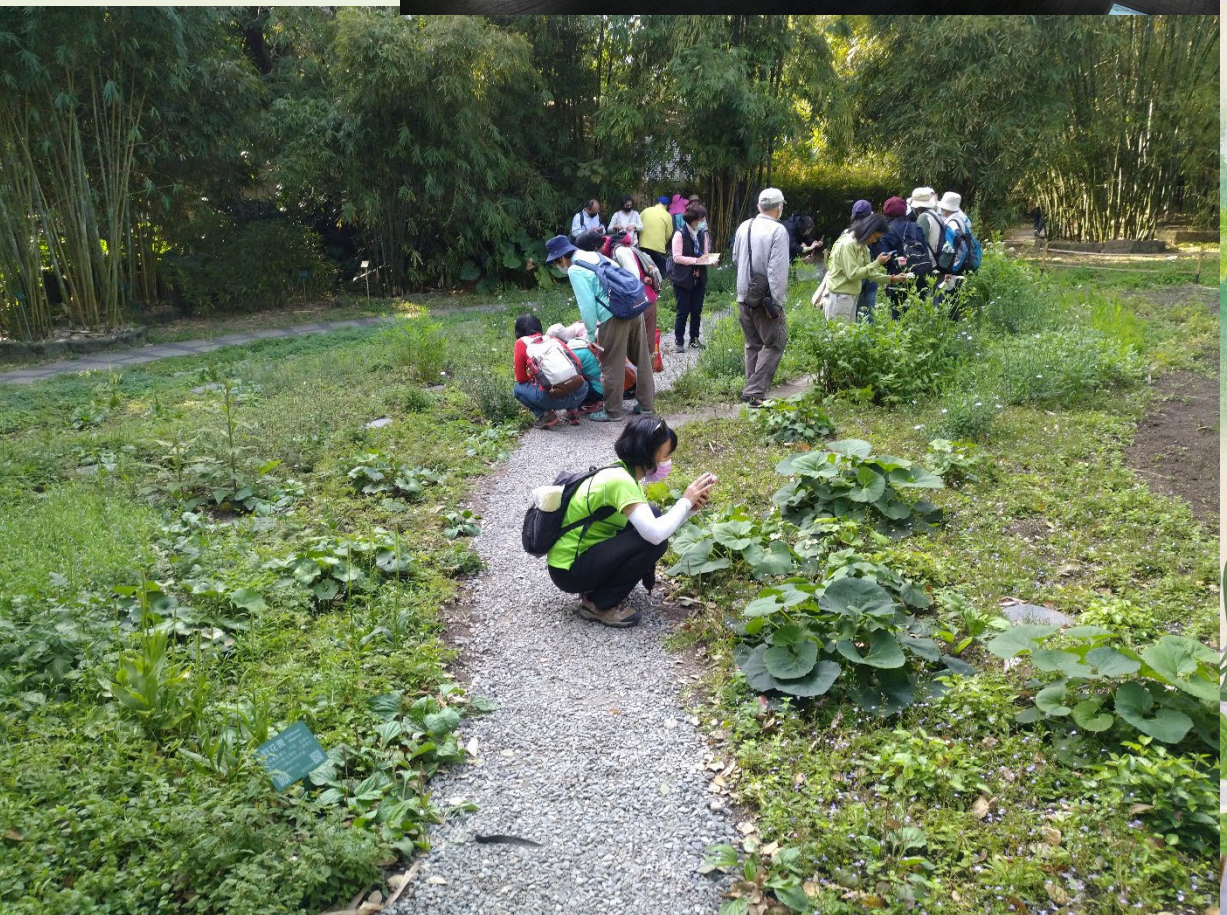

KIREL
KIRUM
ORGANIC
PALM
VINEGAR
ORIGINAL
JAYA
KHMER PALM SUGAR
palma

Art lies hidden in nature, and is waiting to be found. 藝術隱藏在自然之中，等待被發現

—Albrecht Dürer 杜勒，文藝復興時期德國畫家

Christchurch Botanic Garden, NZ


博愛路
施工封閉中
植物名人廣場




野花園－你甘知影阮的名
春天裡千姿百態的野草野花，
在山野間及都會一隅恣意的綻放，
你可曾為它佇足片刻？
博愛路
野花園
野花園
野花園
台北植物園
Taipei Botanical Garden

Thank You