

花花世界 (二)

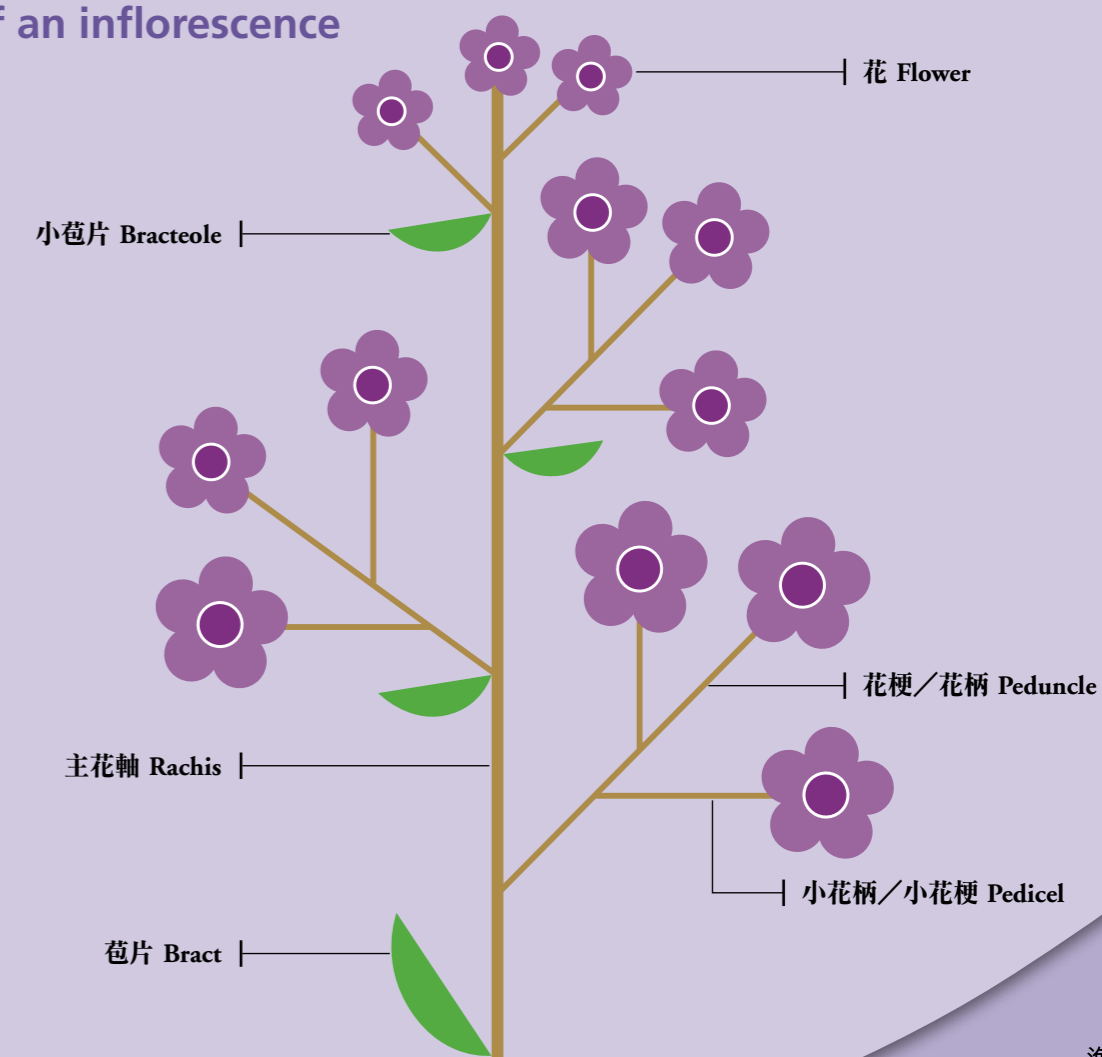
花序 Inflorescence

絢麗的花朵不但賞心悅目，亦能為環境增添姿彩。從植物學角度，花是被子植物（顯花植物）的繁殖器官，開花結果是要繁衍下一代。花朵之所以色彩繽紛、千嬌百媚，主要是希望能吸引動物來傳播花粉。又大又美艷的花朵當然可輕易吸引到昆蟲或其他動物前來傳播花粉，但那些細小的花朵要得到昆蟲的垂青便不能單獨行事。正所謂團結就是力量，那些細小的花兒會以不同方式結集，排列成奪目的隊形，以增加吸引力。這些變化多端，花朵在花軸上的不同排列方式，稱為花序，並可分為有限花序和無限花序兩大類。

Gorgeous flowers are not only appealing and enjoyable, but could also enhance the attractiveness of our environment. From the botanical viewpoint, flowers are reproductive organs of Angiosperms (flowering plants) and the purpose of flowering and fruiting is to produce offspring. The main reason why flowers are so colourful and enchanting is to attract insects or other animals for disseminating their pollens. Large and glamorous flowers are always able to attract insects for their pollen dispersal. However, tiny little flowers cannot easily attract insects on their own and they have to work as a group. As "unity is strength", these tiny flowers gather and arrange in appealing forms to increase their attractiveness. The different ways of arrangements of flowers on the flowering axis is known as inflorescence. Inflorescence could be categorized into two main groups: determinate and indeterminate.

花序的部分

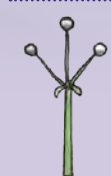
Parts of an inflorescence



馬利筋 Blood-flower ▶



八角楓 Chinese Alangium ▶



聚傘花序：花軸頂端先開花，兩側分枝各從頂端再長出一朵花。例如八角楓、雞蛋花、馬利筋等。

Cyme: The central flower terminating the main axis (rachis) blooms first. Side branches then develop a single flower at their tips. Examples: Chinese Alangium (*Alangium chinense*), Frangipani (*Plumeria rubra*), Blood-flower (*Asclepias curassavica*).



角花烏薺莓 Corniculate Cayratia



二歧聚傘花序：複合的聚傘花序，位於花軸頂端的花先開，接着是兩側的花梗開花，然後是從花梗再分枝出的小花梗再開花，形成起初有較少花朵開花，後來有較多花朵同時開花。例如角花烏薺莓。

Dichasium: Compounded Cyme. Terminal flower on the top of the rachis bloom first and then flowers on peduncles branching from rachis follow. After that, flowers on pedicels developed from peduncles bloom. As a result, a few flowers bloom at the beginning but more flowers blossom together afterwards. Example: Corniculate Cayratia (*Cayratia corniculata*).



▲ 萱草 Day-lily



螺旋狀聚傘花序：屬單歧聚傘花序，花軸只向單一方向相繼長出側枝，花朵生長在每一分枝頂端，使形成一的旋轉的螺旋狀花序。例如萱草、線紋香茶菜、鶴望蘭等。

Helicoid cyme: A type of Monochasium. Rachis grows in one direction only, with side branches develop on each new axis. Flowers blossoming on the top of each branch, forming a coil-like structure, similar to a spiral or helix. Examples: Day-lily (*Hemerocallis fulva*), Striped Plectranthus (*Isodon lophanthoides*), Bird-of-paradise (*Strelitzia reginae*).

◀ 鶴望蘭 Bird-of-paradise



蝎尾狀聚傘花序：另一種單歧聚傘花序，花軸長出的新枝的方向與之前的相反，形成「之」字形彎曲花軸。例如紫丹、大尾搖。

Scorpioid cyme: Another type of Monochasium. Newly developed branch on rachis growing in the opposite direction to the previous one, forming a zigzag floral axis. Example: Mountain Tournefortia (*Tournefortia Montana*), Wild Heliotropium (*Heliotropium indicum*).



紫丹 Mountain Tournefortia



大尾搖 Wild Heliotropium

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無限花序 Indeterminate Inflorescence

花朵由下而上或由外而內生長，即位於下方或外圍的花會首先開放，花軸可以無限延伸，不斷長出新的花朵。

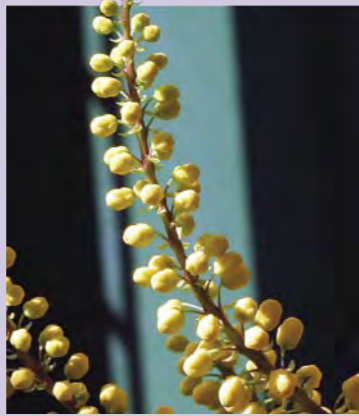
Flowers grow from lower part of rachis to the top or from periphery to centre, i.e. the flowers at the lower part or at the periphery bloom first. Rachis can elongate indefinitely and produce new flowers continuously.



總狀花序：花沿一不分枝的花軸由基向上漸次成熟，花軸不斷向上生長，每朵花有明顯較長的花柄。例如海島十大功勞、草豆蔻、翅莢決明等。

Raceme : Flowers maturing from the bottom of an unbranched and elongating rachis (the main axis of an inflorescence) upwards. Flowers with long pedicel. Examples: Island Mahonia (*Mahonia oiwakensis*), Hainan Galangal (*Alpinia hainanensis*), Winged Cassia (*Cassia alata*).

海島十大功勞 Island Mahonia ▶



穗狀花序：與總狀花序相似，花或小穗沿長而不分枝的花軸，由基向上漸次成熟，但花朵沒有花柄或花柄甚短。例如青葙、車前草、老鼠簕等。

Spike : Similar to Raceme, flowers or spikelets maturing from the base of an elongated and unbranched rachis upward. But with sessile or subsessile flowers or spikelets. Examples: Wild Coxcomb (*Celosia argentea*), Plantain (*Plantago major*), Spiny Bears Breech (*Acanthus ilicifolius*).

青葙 Wild Coxcomb

複穗狀花序：主花軸多分枝，每條分枝由一個穗狀花序組成。例如五節芒。

Compound Spike : Highly branched rachis with each branch formed from a spike. Example: Many-flowered Silvergrass (*Miscanthus floridulus*).

五節芒 Many-flowered Silvergrass ▶



肉穗狀花序 (佛焰花序)：與穗狀花序相似，但花軸脹大變成肉質狀，整個花序被一大苞片 (佛焰苞) 包裹。例如海芋、廣東萬年青、露兜樹等。

Spadix : Similar to Spike, but with flowers crowded on a thickened rachis. Inflorescence enclosed by a large bract (spathe). Examples: Giant Alocasia (*Alocasia macrorrhizos*), Chinese Evergreen (*Aglaonema modestum*), Screw Pine (*Pandanus tectorius*).

廣東萬年青 Chinese Evergreen

海芋 Giant Alocasia ▶



葇荑花序：與穗狀花序相似，但花軸細長柔軟並向下垂，花序由密集的單性花排列而成。例如木薑葉青岡、蠟蕪錐等。

Catkin : Similar to Spike, but with soft and slender rachis hanging downwards. A dense spike with unisexual flowers. Examples: Litsea Oak (*Cyclobalanopsis litseoides*), Castanopsis (*Castanopsis fissa*).

蠟蕪錐 Castanopsis



圓錐花序：又稱複總狀花序，由分支的總狀花序組成錐形的排列，即主軸分支出總狀花序。例如小葉米仔蘭、藍花楹等。

Panicle : Also known as Compound Raceme. A branched racemose inflorescence (i.e. rachis with Raceme branches) arranging in a conical shape. Examples: Small-leaved Mock Lime (*Aglaia odorata* var. *microphyllina*), Jacaranda (*Jacaranda mimosifolia*).

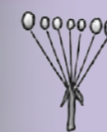
小葉米仔蘭 Small-leaved Mock Lime



頭狀花序：花軸頂端脹大形成盤狀或球狀的花托，上面密生著無柄或近無柄的花，形成圓球狀。例如向日葵、水團花、四藥門花等。

Capitulum : The top of rachis swollen, forming a disc or ball shaped receptacle on which dense cluster of sessile or sub-sessile flowers are borne, appearing as a globe or sphere. Examples: Sunflower (*Helianthus annuus*), Chinese Buttonbush (*Adina pilulifera*), Hong Kong Witch-hazel (*Tetrathyrum subcordatum*).

向日葵 Sunflower ▶



傘形花序：小花柄等長，從花軸頂端同一點向外放射排列，如雨傘狀，花序平頂或凸頂。例如球蘭、菝葜等。

Umbel : Pedicels of similar length spreading out from a common point at the top of rachis like an umbrella, forming a flat or convex inflorescence. Examples: Wax Plant (*Hoya carnosa*), Greenbrier (*Smilax china*).

球蘭 Wax Plant



複傘形花序：主花軸頂端分枝，每個分枝頂端呈現一個傘形花序。例如芫荽、水芹等。

Compound Umbel : Branches form from the top of rachis and each branch bear an umbel at its tip. Examples: Coriander (*Coriandrum sativum*), Water Celery (*Oenanthe javanica*).



水芹 Water Celery



樹頭菜 Spider Tree



傘房花序：與總狀花序相似，但小花柄長度由下而上漸短，花朵的位置等高，形成一平頭或微圓花序。例如樹頭菜、雙莢決明、吊鐘等。

Corymb : Similar to Raceme, but with the lower pedicels longer than the upper ones, forming a flat or slightly rounded top, with flowers at similar height. Examples: Spider Tree (*Crateva unilocularis*), Double-fruited Cassia (*Cassia bicapsularis*), Chinese New Year Flower (*Enkianthus quinqueflorus*).



隱頭花序：小花聚生於肉質中空的花軸內壁，並被包圍於花軸中，外形猶如一果實。例如所有榕屬植物。

Hypanthodium : Little flowers borne on inner walls of capitulum, enclosed within rachis, like a fruit. Examples: All Figs (*Ficus* species).



粗葉榕 Hairy Fig

有限花序 Determinate Inflorescence

花軸中央頂端首先開花，阻止主花軸不能進一步延長。花朵由頂點向下或由中央向外圍生長，即位於上方或中央的花會首先開花，主軸花朵數目不會無限增加。

Terminal flower at the top of rachis blooms first, halting further elongation of the main floral axis. Flowers grow from the top to bottom or from centre to periphery, (i.e. flowers at the top or at the centre bloom first). The number of flowers on rachis does not increase unlimitedly.



華重樓 Love Apple

單生花：只有單一朵花生於花軸頂端，而非一簇或一群。例如洋金花、華重樓、紅皮糙果茶等。

Solitary : Flowers occurring singly on the top of rachis, instead of being borne in a cluster or group. Examples: Hindu Datura (*Datura metel*), Love Apple (*Paris polyphylla* var. *chinensis*), Crapnell's Camellia (*Camellia crapnelliana*).