A Field Guide to Plants of Singapore

- Common Wildflowers

Singapore is home to a very wide variety of wildflowers from diverse habitats. They come in many colours and shapes, grow spontaneously in many areas such as in the gardens, parks, open fields, and even by the roadsides and on pavements. They can be native to our region or introduced from other areas. Some even became naturalized over time.

Below is a simple key to identify wildflowers that can be found in Singapore. This list is not exhaustive but we hope you will find it useful in your wildflower explorations.

KEY TO THE COMMON WILDFLOWER PLANTS

1.	Plants with long and slender stems, creeps or climbs, equipped to support climbing	with tendrils, hooks or spines 22		
	Plants with single and erect main stem or trunk, or several erect main stems, do not need			
	extra mechanical support	3		
2.		Ipomoea cairica		
	Leaves simple, ovate, elliptic or circular shaped with notched tip	o, smooth margin		
		Ipomoea pes-caprae		
3.	Plants woody, mature plants are more than 1 m tall	4 (Shrubs)		
	Plants non-woody (herbaceous), mature plants are not more th	an 1 m tall 5 (Herbs)		
4.	Stipules present; lance shaped leaves; reddish stem, woody near the base			
		Ludwigia hyssopifolia		
	Stipules absent; leaf blades with pinnate veins (one main vein with many smaller veins			
	branching off from that main vein)	Stachytarpheta indica		
5.	Leaves compound (one leaf blade divided into several leaflets)	6		
		8		
6.	Stipules present (small, leaf-like part at the base of leaf stalk), leaves 4-leaflets; flowers pea-			
	shaped, yellow, fruit peanut-shaped	Arachis pintoi		
	Stipules absent	7		

7.	Leaflets ovate to lanceolate; flowers daisy-like, white ray flore	ts surrounding yellow centre	
	disk florets	Bidens pilosa	
	Leaflets oval; flowers white with yellow throat	Oxalis barrelieri	
	Leaflets heart-shaped; flowers yellow	Oxalis corniculata	
8.	Stipules present, leaves round, hairy or smooth edge; sap or resin produced when bruised or		
	cut	Euphorbia thymifolia	
	Stipules absent	9	
9.	Leaves with alternate arrangement, leaves elliptic, irregular to	othed margin; flowers are	
	compacted into head-like shape, red to orange; fruits usually dry		
		Crassocephalum crepidioides	
	Leaves with opposite arrangement	10	
	Leaves with spiral or rosette arrangement	11	
10.	Flowers bilaterally symmetrical and showy		
	Flower cluster, about 4 cm in diameter, petals white or yellow or purple		
		Asystasia gangetica 'Alba'	
	Flowers bilaterally symmetrical, spur-like appendage; stems 4-	angled	
	Leaves narrowly lanceolate; flowers white with purple dots		
		Andrographis paniculata	
	Flowers radially symmetrical, arranged umbrella-like; leaves kidney or round shaped,		
	smooth	Hydrocotyle sibthorpioides	
	Flowers are compacted into one cluster, resembling single flow shaped; fruits usually dry	ver; leaves oval or lance	
	Stems reddish purple or light green, covered in white l	hairs: flower cluster white to	
	purple	Ageratum conyzoides	
	Stems rounded and roots at nodes; leaves glossy; flow	•	
	stalked	Sphagneticola trilobata	
11.	Leaves kidney shaped, wrinkled surface; flowers arranged umbrella-like		
	, , , , , , , , , , , , , , , , , , , ,	Centella asiatica	
	Leaves spoon-shaped, clustered in circular pattern close to gropetals		

Below are some examples of the wildflower plants found in Singapore.

Ageratum conyzoides (Billy Goat Weed)

Family: Asteraceae









HERB erect growth habit, up to 60 cm tall

FOLIAGE smooth, oval shaped, serrated margin. Stipules absent.

FLOWER white to purple. Flowers continuously throughout the year

FRUIT dry, single-seeded fruits, dispersed by wind

TYPICALLY FOUND disturbed land with nutrient poor soils

Andrographis paniculata (Bitterweed)

Family: Acanthaceae









HERB erect growth habit, up to 50 cm tall

FOLIAGE narrowly elliptic shaped, entire margin. Stipules absent

FLOWER tubular-shaped, white petals with purple dots, free-flowering

FRUIT green and flattened oval capsules, ripens to brown and dry before dehisce to release brown seeds

TYPICALLY FOUND disturbed areas, near waterbodies, roadsides, cultivated areas

Arachis pintoi (Yellow Peanut Plant)

Family: Fabaceae







SHRUB creeping growth habit, forming dense mat, up to 50 cm tall

FOLIAGE pinnate with 4 oval leaflets, entire margin. Stipules present.

FLOWER pea-shaped, yellow flowers, free-flowering

FRUIT peanut-shaped, located underground, brown seed

TYPICALLY FOUND seasonally waterlogged area, degraded soil, low fertility soil

Asystasia gangetica 'Alba' (Chinese Violet)

Family: Acanthaceae







HERB creeping growth habit, up to 1 m tall

FOLIAGE ovate shaped, entire margin. Stipules absent

FLOWER trumpet-shaped, white flowers with yellow throat, free-flowering

FRUIT green capsules, ripens to brown and dry before dehisce to release flat, circular black seeds

TYPICALLY FOUND disturbed areas, waterlogged, well-drained soils, along riverbanks

Bidens pilosa (Beggar's Tick)

Family: Asteraceae



HERB erect growth habit, up to 1 m tall

FOLIAGE trifoliate, saw-like teeth margin. Stipules absent

FLOWER daisy-like inflorescence, 4-7 white ray florets surrounding a yellow centre of disk florets **FRUIT** bristly, barbed hooks at tip, black when ripe, attaches onto fur or feathers to disperse

TYPICALLY FOUND disturbed areas, infertile wastelands, hilly areas, drought-tolerant soils

Centella asiatica (Indian Pennywort)

Family: Apiaceae



HERB creeping growth habit, up to 1 m tall

FOLIAGE kidney shaped, rounded teeth margin. Stipules absent

FLOWER umbel inflorescence, greenish white

FRUIT round, flattened, brown when ripe, dispersed by water

TYPICALLY FOUND disturbed areas, moist soil, swampy areas, tolerant of full sun to shady conditions **REMARK** similar to *H. sibthorpioides*, but *C. asiatica* has entire or crenate margin while *H. sibthorpioides* has shallow lobed margin.

Crassocephalum crepidioides (Redflower Ragleaf)

Family: Asteraceae







HERB erect growth habit with ribbed stem, up to 100 cm tall

FOLIAGE elliptic shaped, slightly lobed, irregular teeth at margin. Stipules absent.

FLOWER small clusters, tubular, red to orange, free-flowering

FRUIT small clusters shaped like puffballs, brown with fluffy white hairs, dispersed by wind

TYPICALLY FOUND abandoned areas, waste areas, plantations, roadsides

Elephantopus scaber (Elephant's Foot)

Family: Asteraceae





HERB up to 60 cm tall

FOLIAGE spoon shaped, arranged rosette-like. Stipules absent

FLOWER purplish or pink, free-flowering

FRUIT long, covered in soft hairs, cling on animals and humans for dispersal

TYPICALLY FOUND disturbed areas, shaded areas, wastelands

Euphorbia thymifolia (Thyme-leaved Spurge)

Family: Euphorbiaceae







HERB prostrate growth habit, up to 20 cm long with reddish stems

FOLIAGE round shaped, hairy. Stipules linear or lance shaped

FLOWER tiny clusters at leaf axils, free-flowering

FRUIT small, oval, seeds are release via explosive mechanism

TYPICALLY FOUND dry soils, sandy or gravelly soils, wastelands, disturbed areas

Hydrocotyle sibthorpioides (Lawn Pennywort)

Family: Apiaceae





HERB creeping growth habit, up to 10 cm tall

FOLIAGE light green, kidney to round shaped, shallowly 5-7 lobed margin. Stipules absent **FLOWER** greenish white, free-flowering

FRUIT small, round, greenish-yellow turning brown with purplish stains when mature, seeds dispersed by water

TYPICALLY FOUND damp or wet areas, slopes

REMARK similar to *C. asiatica*, but *H. sibthorpioides* has shallow lobed margin while *C. asiatica* has entire or crenate margin.

Ipomoea cairica (Morning Glory)

Family: Convolvulaceae







 $\begin{picture}(60,0)\put(0,0){\line(0,0){100}} \put(0,0){\line(0,0){100}} \put(0,0){\line(0,0){100}$

FOLIAGE palmate-shaped into 5 lobes. Stipules absent

FLOWER large, funnel shaped, purple, free-flowering

FRUIT round, split to release black hairy seeds, dispersed by wind, water and human movements

TYPICALLY FOUND disturbed areas, poorly drained areas

REMARK similar to *I. pes caprae*, but *I. cairica* has palmate-shaped leaves and purple flowers while *I. pes-caprae* has ovate, elliptic or circular-shaped leaves with notched tip and pink flowers.

Ipomoea pes-caprae (Beach Morning Glory)

Family: Convolvulaceae







CLIMBER creeping growth habit with thick tap root, up to 30 m long

FOLIAGE ovate, elliptic or circular-shaped with notched tip. Stipules absent

FLOWER large, funnel shaped, pink to violet, free-flowering

FRUIT round, split to release black seeds, seeds can float and dispersed by water

TYPICALLY FOUND sandy soils, adjacent to granite walls or reclaimed sites

REMARK similar to *I. cairica*, but *I. pes caprae* has ovate, elliptic or circular leaves with notched tip and pink flower while *I. cairica* has palmate-shaped leaves and purple flowers.

Ludwigia hyssopifolia (Water Primrose)

Family: Onagraceae







SHRUB erect growth habit, up to 2 m tall, woody near the base

FOLIAGE lance shaped. Stipules reddish and small.

FLOWER yellow, four-petalled, free-flowering

FRUIT cylindrical, hairy with numerous oblong seeds that are dispersed by water

TYPICALLY FOUND standing water, moist areas, clay and peat soils, disturbed areas

Oxalis barrelieri (Lavender Sorrel)

Family: Oxalidaceae







HERB erect, up to 1.5 m tall

FOLIAGE oval shaped, 3-leaflets, usually green with purplish leaf edge. Stipules absent

FLOWER white petals with yellow tube

FRUIT tiny, oval-shaped, seeds are dispersed by explosive mechanism

TYPICALLY FOUND dry or moist soil, sandy soil

Oxalis corniculata (Yellow Wood Sorrel)

Family: Oxalidaceae



HERB trailing growth habit, up to 10 cm tall

FOLIAGE compound, heart shaped leaflets. Stipules absent

FLOWER yellow, free-flowering

FRUIT cylindrical, hairy, splits open when ripe, releasing seeds by explosive mechanism

TYPICALLY FOUND disturbed areas, moist soils, cultivated areas, on rocks

Sphagneticola trilobata (Yellow Creeping Daisy)

Family: Asteraceae



HERB creeping growth habit, up to 70 cm tall

FOLIAGE oval to lance shaped with 3-lobes, toothed leaf edge, glossy green on upperside while paler green on the underside. Stipules absent

FLOWER daisy-like inflorescence, yellow

FRUIT tiny, oval shaped, brown

TYPICALLY FOUND damp or wet soil, near waterbodies, disturbed areas, open areas

Stachytarpheta indica (Indian Snakeweed)

Family: Verbenaceae



SHRUB much-branched and erect growth habit, up to 1 m tall

FOLIAGE elliptically or oval shaped, toothed leaf edge. Stipules absent

FLOWER blue, long inflorescence growing upright

FRUIT oblong shaped, splits into 2 single-seeded parts when ripe, seeds dispersed by wind

TYPICALLY FOUND disturbed areas, cultivated areas, along seashore

References

eFloras.org. www.efloras.org

Flora Malesiana. http://portal.cybertaxonomy.org/flora-malesiana/

Henderson, M.R. 1961. Common Malayan Wildflowers. Great Britain: Longmans.

Foo, T.S. 1985. A Guide to the Wildflowers of Singapore. Singapore: Singapore Science Centre

M.M.J. van Balgooy, Y.W. Low & K.M. Wong 2015. *Spot-characters for the Identification of Malesian Seed Plants: a Guide*. Kota Kinabalu, Malaysia: Natural History Publications (Borneo)

Kew Royal Botanic Gardens. https://www.kew.org/data/grasses-db/index.htm

Royal Horticultural Society. http://www.rhs.org.uk

Timothy Utteridge & Gemma Bramley 2015. *The Kew: Tropical Plant Families Identification Handbook Second Edition*. Royal Botanic Gardens, Kew: Kew Publishing

Whorled pennywort, *Hydrocotyle verticillata* Thunb. (araliaceae), a new record of a casual aquatic macrophyte in Singapore.

https://lkcnhm.nus.edu.sg/nus/pdf/PUBLICATION/Nature%20In%20Singapore/Online%20Journal/2014/2014nis079-091.pdf