

## FLORA OF PENINSULAR MALAYSIA



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**I**n this era, few would think that Peninsular Malaysia would yield new species and new records of higher plants in its forests. Surprisingly, the Flora of Peninsular Malaysia project

has, time and again, stumbled on some very exciting and possibly new plant species during their expeditions. Here, we take you on a pictorial botanical tour to Gunung Bintang Hijau (Perak), Tasik Kenyir (Terengganu) and Cameron Highlands (Pahang). Most of the species presented here are photographed for the first time and apart from capturing the elegant beauty of the plant and its flowers, the features and colours displayed are useful for clarifying poorly known or misunderstood species.

### NEW SPECIES



Photo credit: Wilkie P.

Many *Ridleyandra* (Gesneriaceae) species have attractive deep purple flowers and this new species is no exception. It is unusual within the genus for its elegant habit with pairs of leaves spaced on the stem. It was discovered in the pristine forest of Taman Negara.



Photo credit: Chew M.Y.

While scrambling up a near vertical slope with loose peaty soil near Camp Cobra at G. Tera (see attached article), we were rewarded with the discovery of this new *Henckelia* (Gesneriaceae) species growing in a shaded, slightly underhanging rock covered in deep humus.

## ENDEMIC AND RARE SPECIES



**A, B.** *Trichosanthes quinquangulata*  
**C.** *Luvunga crassifolia*  
**D.** *Burkillanthus malaccensis*

The colour of the fruit and flesh of these rare species, *Trichosanthes quinquangulata* (Cucurbitaceae), *Luvunga crassifolia* (Rutaceae) and *Burkillanthus malaccensis* (Rutaceae) have never been recorded until now. Both *L. crassifolia*, an uncommon woody climber with a strong aromatic citrus smell, and *B. malaccensis* were collected for the first time for Taman Negara, Terengganu, while the unusual gourd, *T. quinquangulata*, from Cameron Highlands is the second record for this species from Peninsular Malaysia.



*Ridleyandra atropurpurea* (Gesneriaceae) is very rare, previously known from only two collections, the last made almost a hundred years ago. The species was poorly known with flower colour described simply as 'deep purple'. Obviously the colour is not plain deep purple because the photograph shows the upper lobes are a rich shade of purple while the lower lobes have a fine white margin and conspicuous white lines running into the throat.

*Begonia reginula* (Begoniaceae) is a small rosette herb with attractive variegated foliage. Its habitat niche is very specific to vertical granite rocks close to small streams. The area where it was first discovered in Ulu Setiu, Terengganu has been cleared. The recent find in Taman Negara is indeed a relief.

It was the young fruits of *Diospyros conformis* (Ebenaceae) that attracted us to the tree, which turned out to be a hyper-endemic species that was only collected once before from the Lenggong area, Upper Perak, in 1925. The tree was growing on a gentle slope of an earth riverbank, its canopy spreading over the river from a crooked bole, reaching to about 20 m tall.

# Snapshots of the flora of Gunung Tera, Stong State Park, Kelantan



Team members included experienced botanists, Dr. Ruth Kiew, S. Kamarudin and cheerful nature-guides who doubled as heavy-duty porters and superb chefs.

Photo credit Yao T.L.



By: Chew, M.Y. (chew@frim.gov.my),  
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**Gunung Tera (5°21'N 101°54'E; 1556 m above sea level)** is located at the northern boundary of the Gunung Stong State Park north-east of the Main Range of Peninsular Malaysia. Together with its sister granite peaks – Gunung Saji, Gunung Ayam and Gunung Stong-it forms a U-shaped ridge which gives rise to the headwaters of Sungai Semuliang. Only Gunung Stong and Gunung

Ayam have been explored botanically, while the flora on Gunung Tera and Gunung Saji remain unknown.

Our first botanical expedition for the year 2007 was scaling Gunung Tera following the “inner route” that is little affected by the tourist traffic to Gunung Stong and Gunung Ayam. To overcome logistic difficulties, we engaged nine local guides from the resident Baha’s Adventure Team, with Mr. Pauzi Husin as the lead guide. The burden on the team members’ shoulders for the next nine days was more than 200 kg of equipment and food, with a daily increment of an estimated 10–20 kg of plant specimens.

The nine days we spent scaling steep slopes, traversing ravines, scrambling along elephant tracks and busily collecting a total of 360 numbers of specimens and 55 vouchers, resulted in a record collection of 315 species of plants. Close to 45% of the species turned out to be new records for Kelantan and represented a considerable extension of the species range in Peninsular Malaysia.

## Expedition route and campsites

- Day 1 The old logging track traverses the lowland and hill dipterocarp forests that were logged between the late 1970s and the 1980s.
- Day 2 At this transition zone between the hill and upper hill dipterocarp forests, the track passes many pristine rivers.
- Day 3 The logging track ends at about 1000 m altitude then onwards it was mostly bushwhacking or following elephant trails.
- Day 4 The plateau with “padang” type open vegetation, clearly visible on the topo map, is a highland *Sphagnum* bog.
- Day 5 Cobra Camp to Permatang Katak (1176 m), onward to Padang Tera (1248 m) and Begonia Camp (1299m). The ridges covered in lower montane forest are largely unexplored.
- Day 6 This is essentially wild elephant country; in certain places the heavily worn elephant tracks were a few metres deep and formed a maze of criss-crossing trails.
- Day 7 The ridge encompasses many different types of habitats. Descending from Gunung Ayam, we followed a well-trodden hiking trail.
- Day 8 The main tourist trails, with a side trip to ascend Gunung Kob, descended to a simple built-up base camp at the top of the Stong waterfall.
- Day 9 Specialized hunt for the hyper-endemic *Henckelia calcarea* on the rocky cliffs of the waterfall.

## Gunung Tera

*Cryptostylis arachnites* (Orchidaceae) holds its brightly spotted lip upright, which is unusual for an orchid flower.



*Rhododendron wrayi*



*Illicium ridleyanum*

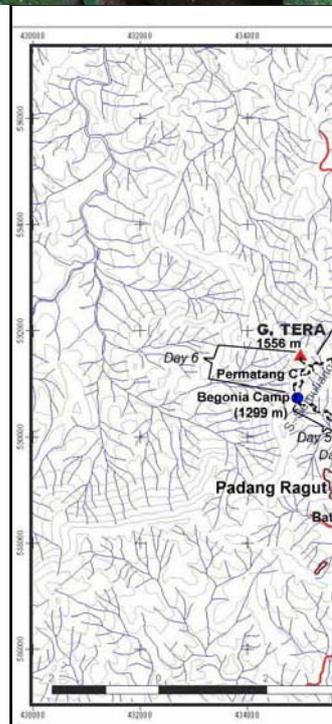


*Rhododendron wrayi* (Ericaceae) and *Illicium ridleyanum* (Illiciaceae) are relatively common endemics on the Main Range.

## Begonia Camp



Perched on moss-covered boulders or occasionally as a low epiphyte, this obscure *Begonia* species is undescribed. Common at the camp.



The Golden Balsam, *Impatiens oncidoides* (Balsamaceae), named after the "dancing-lady orchid", *Oncidium*, is endemic and was thought to be confined to the Main Range.

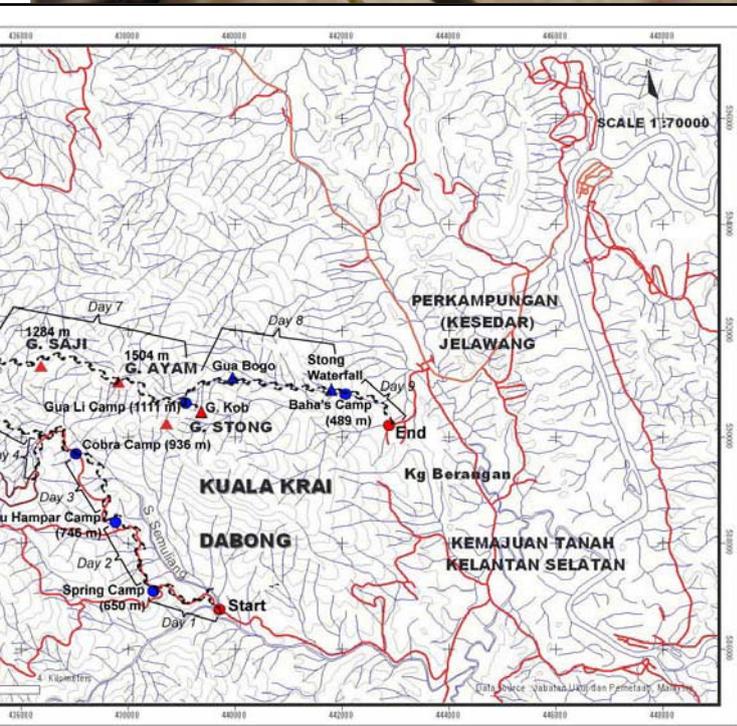
This new species of *Ridleya* was discovered on peat soil above a 1000 m altitude.



## Gua Bogo



This *Didymocarpus* sp. (Gesneriaceae) grows in thickets on a large boulder beside a stream. It is probably a new species.



## Cobra Camp

*Pyandra* (Gesneriaceae) grows gregariously along a river in a primary forest at about 900–



*Orchadocarpa* (Gesneriaceae) is a genera endemic to Peninsular Malaysia. Its only species, *O. lilacina*, was previously known from the Main Range.

## Stong Waterfall



Photo credit Pauzi H.

*Henckelia calcarea* (Gesneriaceae) has only been collected twice, in 1924 and 1988. This hyper-endemic species grows in a single valley in the hill dipterocarp forest, on steep rock faces among leaf litter and a tangle of other herbs.

## Baha's Camp



Photo credit Pauzi H.

Photo credit Pauzi H.



This diminutive *Sonerila* (Melastomataceae) species grows on shaded, moss-covered rock faces at 500 m altitude in the hill dipterocarp forest. This annual tuber-producing herb is probably a new species.

Gunung Kob



An endemic ginger, *Alpinia murdochii* (Zingiberaceae) is recorded for the first time from Kelantan.

Padang Ragut



*Maclurochloa montana* (Gramineae) is in a monotypic genus of bamboo endemic to Peninsular Malaysia. It has a distinct white band at the nodes.

Batu Hampar Camp



*Viola curvistylis* (Violaceae) is a Himalayan element in the Malaysian flora.

Permatang C



*Phaius callosus* (Orchidaceae) has showy flowers almost 10 cm across with rather leathery and waxy petals.



*Coelogyne radicata* (Orchidaceae) is a variable species found on mountain ridges of Peninsular Malaysia and southern Thailand.



Recorded for the first time from Kelantan, *Agalmyla parasitica* (Gesneriaceae) is a climber with a white stem.



A mountain species, *Clethra hendersonii* (Clethraceae) is recorded only from Perak, Pahang and Selangor. We found this rare plant along the Gunung Irau trail in Cameron Highlands. Its white showy flowers are strongly and sweetly scented and the plant has potential as an ornamental.



*Aeschynanthus rhododendron* (Gesneriaceae) is an endemic climber known locally as "monkey's lipstick" .



1

Photo credit: S. Lee



3

Photo credit: K. Imin

1. *Henckelia miniata* (Gesneriaceae) is a striking plant when in full bloom. Its bright red flowers are unusual for the genus *Henckelia*. This rare endemic was known only from forest of Bukit Bauk, Terengganu, which was heavily disturbed by road extension. It was collected from Sg. Ayam Forest Reserve, Terengganu.

2. This rare, tiny (c. 5 cm tall) flowering plant is an ephemeral and elusive saprophyte, sprouting up from thick leaf litter in the wettest months. *Thismia arachnites* (Burmanniaceae) derives its name from its spider-like flower extending from a tuberous base and slender stem. Not only is it difficult to spot in the field, the preservation of the specimen also presents another challenge. Drying to make a herbarium specimen loses many important characters so it needs to be preserved in spirit. This, however, dissolves the colour so it is especially important to make a photographic record.



2

Photo credit: T. L. Yao



4

Photo credit: C. L. Lim

3. A woody epiphytic climber, *Agapetes scortechinii* is a beautiful ericaceous plant that is restricted to the Main Range from Cameron Highlands to Fraser's Hill. Its tubular, bright red flowers, which are about 3 cm long, are exceptionally striking.

4. *Pittosporum reticosum* (Pittosporaceae) is found on a few mountain summits in Peninsular Malaysia. It is conspicuous when the yellow fruits mature and split open to reveal a mass of bright red pulp.



Photo credit: T.L. Yao

Field notes, including photographs, are important and sometimes crucial in understanding species. *Baccaurea scortechinii* (Euphorbiaceae), which has strings of a few angular, dark pinkish fruits growing from the trunk, has been confused with *B. parviflora*, which has deep purple, smooth, spindle-shaped fruits produced around the base of the trunk and lie on the ground.

## NEW RECORDS OF ALIEN SPECIES



Photo credit: M.Y.Chew

*Sagina japonica* (Caryophyllaceae) is a nondescript little herb with a rosette of linear leaves that at a glance could be overlooked as a grass or sedge. The minute, white, five-petaled flowers, however, place it among the dicots. It is a roadside weed and is a new record for Peninsular Malaysia. Not known when it was (accidentally) introduced, it is now common in several places at Genting Highlands.

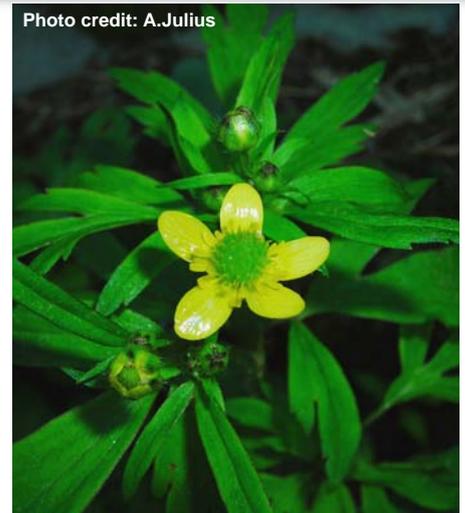


Photo credit: A.Julius

A species of buttercup, *Ranunculus* (Ranunculaceae), was an unexpected find at Cameron Highlands, a horticultural and agricultural hotspot prone to invasive alien plants. Its bright yellow flowers and dissected leaves identify it at once as a true buttercup. The genus *Ranunculus* has not been recorded in Peninsular Malaysia before although there is a native species, *R. lowii* that grows on the summit of Gunung Kinabalu. It is difficult to identify exotic species, especially when the country of origin is not known. Its species identity is currently being investigated.

## NEW RECORDS



Photo credit: H.M.Kamarul

While exploring forests to the east of Tasik Kenyir, Terengganu, we encountered a peculiar annonaceous tree, unusual for its large trunk size (about 20 cm diameter) and its massive bunches of fruits hanging from the foot of the tree. It proved to be *Sageraea cauliflora*, a new record for Peninsular Malaysia. This species obviously fruits very rarely.

### Errata for Issue No. 6 (2007)

A ray of hope for *Dipterocarpus semivestitus* once thought extinct. "Young leaves of *Dipterocarpus semivestitus*..." is replaced with "Young leaves of *Shorea hemsleyana*..."

The Mesmerising Vulnerable Masked Finfoot (*Helopais personata*). The scientific name of masked finfoot is *Heliopais personata*. More recent reports showed that the distribution of this vulnerable bird may extend beyond the range stated in the article, i.e., Taman Negara and Royal Belum State Park, where these birds are normally seen.



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