

A NEW SPECIES OF *SUNIPIA* (ORCHIDACEAE)
FROM THAILAND

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ABSTRACT

A new species, *Sunipia angustipetala*, is described and figured, and a key for the identification of the 14 species hitherto recorded from Thailand of this genus is supplied.

The collections of herbarium specimens of Thai flora undertaken by A.F.G. KERR during the years 1908-1932 can be said to form the most important basis for our present days knowledge of the higher plants of this country. But during the same period, and mainly on Kerr's initiative, several collectors contributed to the work. Among the names on the labels of the herbarium sheets that of Put is one of the most frequent.

Nai PUT worked for Kerr in the years 1926-32, and in that period he succeeded in collecting no less than 4548 numbers, most of them with several duplicates (JACOBS, 1962: 481). During the preparation of "*The Flora of Thailand*" many unidentified collections by Put are studied and often form the basis for new records for the Thai flora.

Working on a revision of the genus *Bulbophyllum* in Thailand I have from different herbaria received material for study, and due to the close similarity in habit, these collections often contain representatives of the genus *Sunipia*. A sheet from Kew with one of Put's plants, superficially much like a *Bulbophyllum* of the *Sestochilos* or *Desmosanthes* sections proved surprisingly to be a *Sunipia* and a so far undescribed species, quite distinct from any earlier known species.

The genus *Sunipia* was established by LINDLEY in 1826 on the basis of a plant collected in Nepal by BUCHANAN-HAMILTON, and first described by J.E. SMITH in 1819 as belonging in the genus *Stelis*, its present name is *Sunipia racemosa* (J.E. Sm.) Tang & Wang. Lindley originally had two species in the genus, but later preferred to refer one of them to a new genus *Ione*, to which he in 1853 referred a total of seven species. Some later

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authors (e.g. HOOKER f. 1890 : 769) while maintaining the monotypic *Sunipia*, included *Ione* in *Bulbophyllum*, others (e.g. KING & PANTLING, 1898 : 157) included *Sunipia* in *Ione*. In a small monograph (SEIDENFADEN, 1969 : 205-238) I followed KING & PANTLING, formally proposing a subgenus *Sunipia* under *Ione*. This was nomenclaturally incorrect, when joining *Sunipia* and *Ione* in one genus, the name *Sunipia* has priority, and in consequence of this, P.F. HUNT (1971 : 183) established the subgenus *Ione* under *Sunipia* and undertook the necessary transfers.

Although the plants in this genus with their one-leaved pseudobulbs on a creeping rhizome look very much like *Bulbophyllum*, a study of the flowers shows that the genus is not closely related to *Bulbophyllum*, the four pollinia being connected to the rostellum by two stipes. SCHLECHTER, using the name *Ione* for the combination of the two genera, placed them in a separate subtribe *Genyorchideae* together with three other genera, two of which, *Monomeria* and *Drymoda* are also represented in Thailand, both of them differing from *Sunipia* in having only one common stipes for the four pollinia and in the long columnfoot.

Sunipia today includes only a little more than 20 species, they are rare mountain plants limited to altitudes above 1000 m. The westernmost record is Kumaon in western Himalaya, the easternmost two endemic species in Taiwan. The centre of the genus is undoubtedly Assam and Thailand, in Thailand we have 14 species, mostly found in the North, a single species, found once only, occurs in the Ranong area on the Peninsula as the southernmost representative of the genus.

Information on the members of the genus including figures may be found in my monograph referred to above. I have later (1972 : 113, Fig. 30) published a better figure of *Sunipia grandiflora*, based on a plant found during our helicopter-expedition in 1968 in a mountain area about 90 km south of Tak, presumably not far from the only earlier find, which I would guess came from the mountains above Moulmein. This is a first record for Thailand. Another new record is *Sunipia bicolor* Lindl. found recently by LOJTNANT & CHALAWIT on Doi Phahom Pok, 1800m, this is a widespread species found from W. Himalaya to Yunnan, so the occurrence in northern Thailand was to be expected. It might be noted also that in unidentified material

received from Kew I recently found a specimen of *Sunipia salweenensis* collected by Kerr (No. 391) at Phu Kha, Nan, this is the easternmost record so far of this neat little species which is found rather often in the north-western mountains; during the 1978-expedition we found several differently coloured forms of this on Doi Inthanond between 1700 and 1900 m. Finally, since the publication of my monograph one new species, *Sunipia jainii*, from Nagaland has been established by HYNNEWTA & MALHOTRA (1978: 31-33).

For the benefit of Thai students I supply below a short key limited to the species hitherto found inside Thailand, using the names at present valid, and with indication of the areas in which they have so far been found :

1. Inflorescence few-flowered (1 to 8 flowers)
 2. Scape short, not much more than one cm, inflorescence with 1-3 flowers. Petals narrow triangular more than twice as long as broad at base
 3. Lip with a more or less orbicular proximal part with a narrow acuminate more or less terete; distal part of nearly the same length as the proximal part. Sepals less than 10 mm long. Sepals and petals pale green, lip purplish brown.

Sunipia purpurata (Braid) Hunt
Only recorded from Doi Suthep. Endemic.
 - 3*. Lip orbicular with a broad triangular tip. Sepals 13-14 mm. Sepals and petals light purple, lip dark purple.

Sunipia grandiflora (Rolfe) Hunt
Found once, about 90 km south of Tak. The type from Burma, presumably Tenasserim.
- 2*. Scape longer usually nearly as long as leaves or longer
 4. Scape erect, stout, longer than leaves, usually 20-25 cm long. Dorsal sepal around 9 mm, laterals slightly longer. Lip fat, broad heart-shaped with upcurved edges. Petals about half as long as lateral sepals.

Sunipia annamensis (Ridl.) Hunt
Occurring on the high mountains north-west of Chiang Mai. The type from Langbian, Vietnam.

4*. Scape thin, usually not longer than leaves, not much more than 10–15 cm long, rachis with 2–7 flowers, often somewhat nodding

5. Petals 5 mm or less

6. Lateral sepals connate at least one third of their length, usually more

7. Sidelobes with two small auricles raising near base, lip then broadening with fimbriate edges towards apex; where there is a longitudinal fat rounded callus

Sunipia bicolor Lindl.

Found once at Doi Phahom Pok. Distributed from W. Himalaya to Yunnan.

7*. Sidelobes broadest near base of lip

8. Lip and sepals 12–16 mm long

9. Petals nearly orbicular, somewhat truncate at apex, midlobe of lip usually purple, sometimes yellow

Sunipia salweenensis (Phil. & W.W. Sm.) Hunt

Occurring on high mountains in the North.

The type from the Shan States.

9*. Petals broad triangular blunt

Sunipia cumberlegei (Seidenf.) Hunt

Found only on Khao Yai, 1400m. Endemic.

8* Lip and sepals less than 10 mm long

10. Lateral sepals connate to apex, petals orbicular, midlobe of lip usually greenish

Sunipia minor (Seidenf.) Hunt

Found only on Phu Luang, Loei, 1300m. Endemic.

10*. Lateral sepals only connate at proximal third, where they are also connate with the lip. Petals triangular, 5 mm long with finely fimbriate edges. Flowers greenish

Sunipia soidaoensis (Seidenf.) Hunt

Found once on Khao Soidao Tai, Chanthaburi, 1500 m. Endemic.

- 6*. Lateral sepals not connate. Sepals with purple streaks, 12-17 mm long. Petals 4 mm long, with slightly erose edges, midlobe of lip bright green.

Sunipia viridis (Seidenf.) Hunt

Found several times on Khao Khieo, Khao Yai, 13-1400 m. Endemic.

- 5*. Petals about 14 mm long. (For full description, see below)

Sunipia angustipetala Seidenf.

Found once on Doi Inthanon, Chiang Mai. Endemic.

1*. Many-flowered inflorescence

11. Flowers facing all ways on the inflorescence. Floral bracts small, 2-3 mm, same length as pedicel plus ovary

Sunipia thailandica (Seidenf. & Smitin.) Hunt

Found once on Phu Mieng north west of Lomsak, 1200m. Endemic.

- 11*. Many small distichous short-pedicelled flowers in a long thin inflorescence, more or less hidden by conspicuous bracts

12. Columnfoot lacking, flowers more or less hidden by the 4.5-10 mm long bracts. Petals nearly as long as broad. Lip rather uniformly fat, tongue-shaped

Sunipia racemosa (J.E.Sm.) Tang & Wang

Common in the mountains of the North and Northeast. Widespread in mountain localities from Nepal to Yunnan, Laos and Vietnam.

- 12*. Lateral sepals fastened on a columnfoot, nearly the whole flower visible. Petals acuminate, triangular, twice as long as broad. Lip triangular with fat apex

Sunipia australis (Seidenf.) Hunt

Found once on Khao Phota Luang Khaeo, Ranong, 1000-1200 m. Endemic.

The new species, included in the key above, which has given rise to the present note, may be characterized as follows:

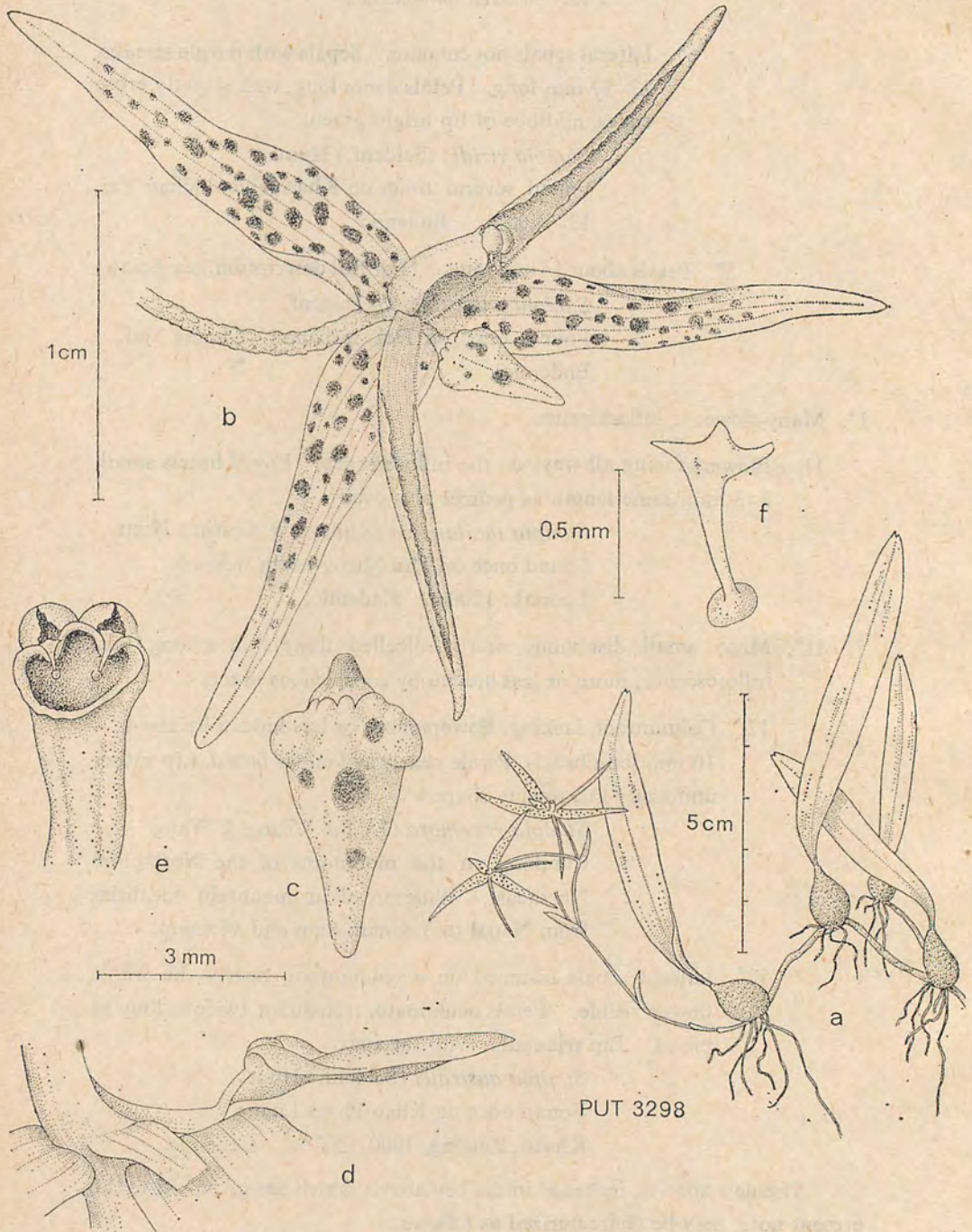


Fig. 1. *Sunipia angustipetala* Seidenf. Type specimen. a. whole plant; b. flower; c. lip from above; d. lip and columnfoot, sideview; e. column, front view; f. stipes.

Sunipia angustipetala n. sp.

S. viridi (Seidenf.) Hunt sectionis *Iones affinis*, imprimis petalis linearibus, sepala paene aequantibus et sepalis punctis obscuris multis ornatis ab ea diversa.

Occurrence: I: Doi Nang Kha, Chiangmai (PUT 3298 K-type)

Distribution: Endemic. (Fig. 1).

Pseudobulbs brown, conical, 12 mm high, 20–25 mm distant on the creeping rhizome, *Leaf* linear lanceolate to 7–8 cm long, 1 cm wide, apex minutely bilobed, median vein strong, slightly raised on backside, stalk short. *Inflorescence* lax, 3–4 flowers, from base of pseudobulb, thin, 40 mm long with 2–3 sheaths; floral bracts ovate acute to about 8 mm long, pedicel plus ovary to 18–20 mm.

Sepals spreading, narrow triangular, 15 mm long, 3 mm broad at base, with five indistinct veins. *Petals* to 14 mm long, linear, their proximal edge short stiff-hairy, the distal edge inrolled, rugose-erose. *Lip* triangular, 4.2 mm long and half as broad at base, slightly convex at upper surface, at base a small median semiglobular callus; below the truncate base a heel through which the lip is moveably fastened to the short columnfoot. *Column* 2 mm long, slightly broadening upwards towards the large funnel-shaped stigma. *Rostellum* fat with two protuberances carrying the two 0.7 mm long stipes that at their lower end each carry a viscous disc, at their upper end the stipes are T-shaped, supporting each two pollinia. *Operculum* persistent, splitting up in front to permit release of the pollinia.

Put gives no colour information, from the dried material it seems that the sepals and lip are light coloured, presumably greenish-yellow, with many small dark, presumably purple warts or dots, and similar warts on the ovary. The petals are presumably more uniformly purple. Flowering in October.

Additional Note

After sending the above paper in print, I received from Vienna an old half forgotten taxon, *Acrochaene rimanni*, published by Reichenbach f. in 1882. According to the label Rimann found this plant in Thailand, the locality is given as Thetanie, a name used also by other collectors, which I have not found on the map, but which probably is near the Three Pagodas in Kanchanaburi.

Studying the flowers, I found that the plant is identical with the above listed *Sunipia salweenensis*. Following the international rules, Reichenbach's name has priority, with the following result:

Sunipia rimannii (Rehb. f.) Seidenf. *comb. nov.*

Basionym: *Acrochaene rimanni* Rehb. f., Gard. Chron. 1882, 1:796.

Synonym: *Ione salweenensis* Phillim. & W.W. Smith, Rec. Bot. Surv. India 4:281. 1913.

Sunipia salweenensis (Phillim. & W.W. Smith) P.F. Hunt, Kew Bull. 26, 1:184, 1971.

Type: Thetanie (Kanchanaburi?), (RIMANN SINE NO. HERB. RCHE. 49494!).

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