

Thirty-three new additions to the flora of Mizoram, India

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भारत के मिजोरम राज्य के वनस्पतिजात में तैंतीस नवीन संयोजन

समिरन पांडे, बिपिन कुमार सिन्हा एवं प्रकाश कर्मकार

सारांश

मिजोरम राज्य के फांगपुई (ब्लू माउंटन) राष्ट्रीय उद्यान से आठ वंश *एकेल्फा* लि., *एग्रिमोनिया* लि., *लिकेन्थस* वेड्ड. *पेजिया* कोल्ब्र., *रिचार्डिया* लि. *स्टेलेरिया* लि. *थेरोपोगोन* मैक्सिम. एवं *वरनोनिया* लि. एवं आवृतबीजीयों की 33 जातियां संग्रहित की गई हैं, ये सभी मिजोरम राज्य के लिये नवीन वितरणपरक अभिलेख के तौर पर दर्ज किये गये हैं। प्रत्येक वंश की जाति के लिये स्वीकृत वानस्पतिक नाम, बेसियोनिम्स, संक्षिप्त वर्णन, फलोभिदकी, वितरण और नमूने के परिक्षण के आंकड़े प्रस्तुत किये गये हैं।

ABSTRACT

Thirty-three taxa of angiosperms which were collected from Phawngpui (Blue Mountain) National Park, are reported as new distributional records for the flora of Mizoram, India. Among those taxa, eight genera like *Acalypha* L., *Agrimonia* L., *Lecanthus* Wedd., *Pegia* Colebr., *Richardia* L., *Stellaria* L., *Theropogon* Maxim. and *Veronica* L. are recorded first time from the state. For each species accepted name, basionym, brief description, phenology, distribution and specimen examined data has been provided.

Keywords: Thirty-three angiosperms, new additions, Phawngpui National Park, Mizoram.

INTRODUCTION

The Mizoram formerly known as 'Lushai Hills', a mountainous state in North-east India, became the 23rd state of the Indian Union in February 1987. The state lies between 21°58' to 24°35' N latitude and 92°15' E to 93°29' E longitude and covering an area of 21,081 sq. km. The length of the state from North to South is c. 277 km, while East-west width extends over 121 km. It has a long inter-state boundary with Assam (123 km), Tripura (66 km) and Manipur (95 km). Besides, the state shares international borders on three sides, with Myanmar in the East and South (c. 404 km) and Bangladesh in the West (c. 318 km). It is surrounded in the North by the Cachar district of Assam, in the East by the state of Manipur, in the East-south and South-west by the Chin

Hills and Arkan Hills of Myanmar and the Western side by the state of Tripura and Chittagong hill tracts of Bangladesh (<https://mizoram.nic.in>). The state is a part of Indo-Burma hot spot.

Phawngpui (Blue Mountain) National Park is one of the protected area of Mizoram located in South-eastern part of the State in Lawngtlai district adjacent to Myanmar border. It lies between 23°45" to 22°40" N latitude and 92°03" to 93°05" E longitude with the total area of 50 sq.km.

MATERIALS AND METHODS

A total of five surveys to Phawngpui National Park were undertaken during different season from April, 2011 to April, 2013 and the collections included some interesting

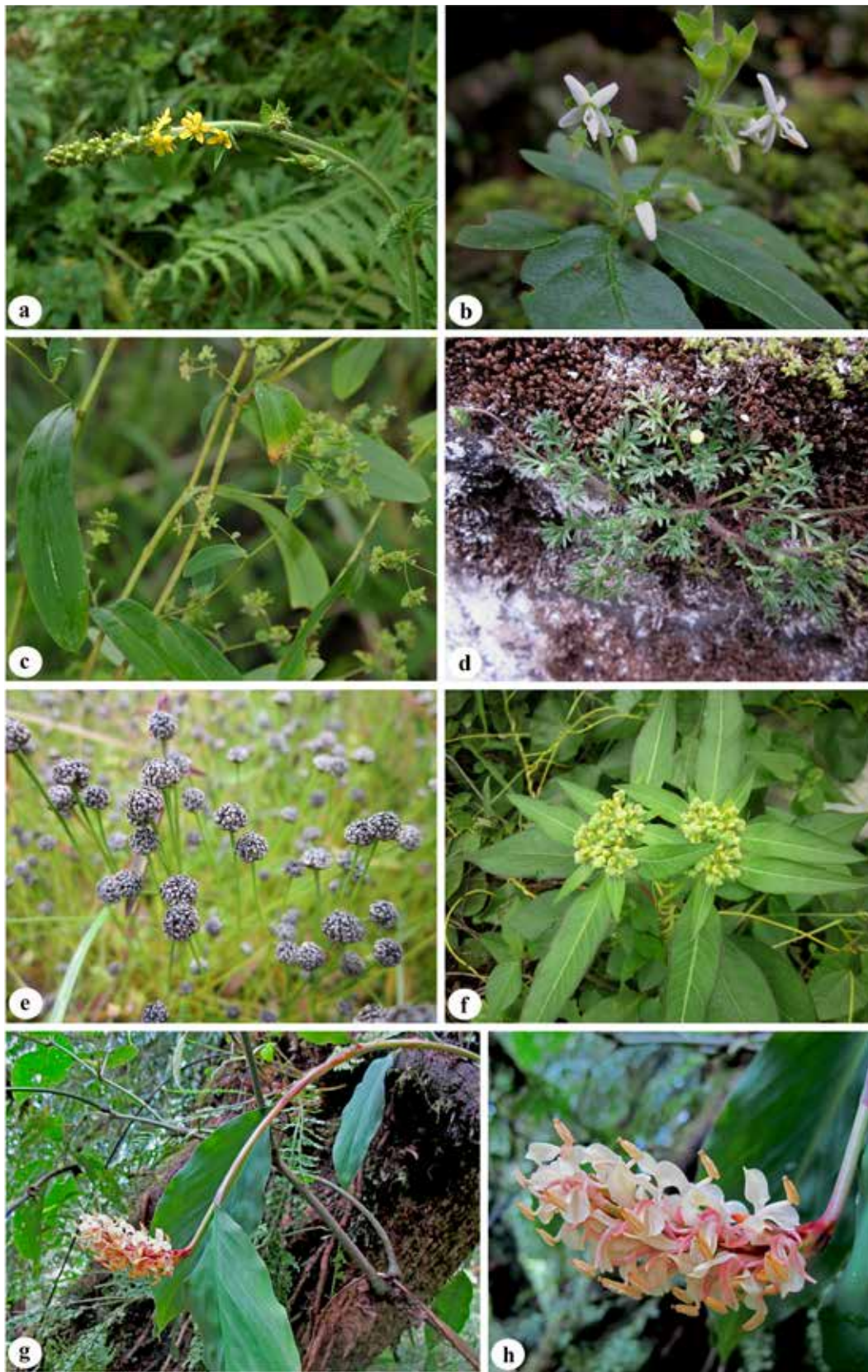


Figure 1: a. *Agrimonia pilosa* Ledeb. (Rosaceae), b. *Argostemma khasianum* C.B. Clarke (Rubiaceae), c. *Bupleurum khasianum* (C.B. Clarke) P.K. Mukh. (Apiaceae), d. *Cotula anthemoides* L. (Asteraceae), e. *Eriocaulon luzulifolium* Mart. (Eriocaulaceae), f. *Euphorbia heterophylla* L. (Euphorbiaceae), g & h. *Hedychium longipedunculatum* Sastry & D.M. Verma (Zingiberaceae).

species of angiosperms. At first, herbarium sheets of those specimens were prepared following standard herbarium techniques (Jain & Rao, 1977). The plant species were identified through critical studies and comparisons with the other specimens deposited at ASSAM and CAL. For data on their distribution relevant literature (Hooker, 1872–1897; Gage, 1901; Fischer, 1938; Kanjilal & al., 1934–1940; Shukla, 1978; Deb & Dutta, 1987; Singh & al., 1990; Mukherjee & Constance, 1993; Sharma & Balakrishnan, 1993; Sharma & Sanjappa, 1993; Sharma & al., 1993; Hazra & al., 1995a, 1995b, 1997; Singh, 1999; Singh & al., 2000; Singh & al., 2002; Lalramnghinglova, 2003; Sawmliana, 2003; Dutta & Deb, 2004; Husain, 2010; Malsawmsanga & Lalramnghinglova, 2011; Sinha & Odyuo 2011; Balakrishnan & al., 2012; Sinha & al., 2012; Kar & al., 2013; Kumar & al., 2013a, 2013b; Panday & al., 2013, 2014a, 2014b, 2016; Vanchhawng & Lalramnghinglova, 2016; Deori & al., 2018; Gogoi & al., 2018) were screened.

Consultation of herbarium (ASSAM and CAL) and scrutiny of above mentioned literature revealed that, thirty three taxa including eight genera (*Acalypha*, *Agrimonia*, *Lecanthus*, *Pegia*, *Richardia*, *Stellaria*, *Theropogon* and *Veronica*) were so far not recorded from Mizoram and hence are new distributional records for the state. The recorded plant species are arranged in this paper alphabetically. This communication deals with original citation (The plant list, 2013) of all species along with basionym if any and relevant synonyms, brief description, phenology, distribution, specimen examined and photographs for its easy identifications. The voucher specimens are deposited in ASSAM for future references.

TAXONOMIC TREATMENT

Acalypha superba Forssk., Fl. Aegypt.-Arab. 162. 1775; S.R.M. Susila Rani & N.P. Balakr. in N.P. Balakr. & al. (eds.), Fl. India 23: 103. 2012. *Acalypha brachystachya* Hornem., Enum. Pl. Hort. Hafn. rev. ed.: 1. 1807; Hook.f., Fl. Brit. India 5: 416. 1887; Kanjilal & al., Fl. Assam 4: 210. 1940. [Euphorbiaceae]

Herbs, annual, 30–70 cm tall, monoecious. Stems sparsely hairy. Stipules lanceolate, c. 5 mm; petiole 2.5–6 cm; lamina rhombic-ovate, 2–5 × 1.5–3 cm, cordate at base, margin crenate, acute at apex; basal veins 3–5. Inflorescence axillary, 1–3 together, bisexual; female bracts 3–5, c. 5 mm, 5-lobed, 1-flowered. Male flowers fascicled; calyx c. 0.3 mm, pilose; stamens 7. Female flowers: sepals 3, suboblong, c. 0.4 mm, ciliate; ovary pilose; styles 3, c. 1.5 mm. Capsules 3-locular, c. 2 mm across, pilose, covered with large green bracts; seeds ovoid, c. 1 mm.

Flowering and fruiting: August–December.

Distribution: India (Andhra Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Meghalaya, Mizoram, Orissa, Tamil Nadu, Uttarakhand, Uttar Pradesh); Bhutan, China, Indonesia, Malaysia, Myanmar, Nepal, Sri Lanka, Vietnam.

Specimen examined: Phawngpui N.P., Vawmbuk east, 1440 m, 26.09.2012, S. Panday & B.K. Sinha 125867.

Agrimonia pilosa Ledeb., Ind. Sem. Hort. Dorpat. Suppl. 1. 1823; Hook.f., Fl. Brit. India 2: 361. 1878. [Rosaceae]

Herbs, perennial, 40–80 cm tall. Stems pubescent. Stipules green, falcate. Petiole pubescent. Lamina imparipinnate with 3–4 pairs of leaflets; leaflets shortly petiolulate, obovate-elliptic, 2–5 × 1.5–5 cm, abaxially densely pubescent, adaxially pilose. Inflorescence terminal, spicate-racemose. Flowers 6–10 mm across, bright yellow; pedicel 2 mm long; bract usually 3-parted; bracteoles, ovate. Sepals 5, triangular-ovate. Petals yellow, oblong. Stamens 8–14. Style filiform; stigma capitate. Fruiting hypanthium obovoid, 7–8 × 3–4 mm, with a crown of prickles.

Flowering and fruiting: May–December.

Distribution: India (Arunachal Pradesh, Assam, Meghalaya, Mizoram, Sikkim); Bhutan, China, Laos, Myanmar, Nepal, Thailand, Vietnam.

Specimen examined: Phawngpui N.P., Farpak, 1900 m, 25.10.2011, S. Panday & B.K. Sinha 123659.

Argostemma khasianum C.B. Clarke in Hook.f., Fl. Brit. India 3: 43. 1880; Kanjilal & al., Fl. Assam 3: 36. 1939, p.p. [Rubiaceae]

Herbs, annual, 10–20 cm tall. Leaves opposite, apparently verticillate due to closely set stem nodes, stipulate; stipules sometimes leaflike. Inflorescence terminal, cymose-corymbiform, 2–5 flowered. Flowers pedicellate, white. Calyx limb deeply 4-lobed. Corolla white, broadly rotate; lobes 4. Stamens 4, fully exserted; filaments free; anthers coherent into a tube. Ovary 2-celled; stigma capitate, exserted. Capsule obovoid, dehiscent through apical operculum, black; seeds numerous, angled.

Flowering and fruiting: July–October.

Distribution: India (Arunachal Pradesh, Meghalaya, Mizoram); Bangladesh.

Specimen examined: Phawngpui N.P., Vawmbuk east, 1440 m, 26.09.2012, S. Panday & B.K. Sinha 125862.

Bupleurum khasianum (C.B. Clarke) P.K. Mukh., Bull. Bot. Surv. India 24: 43. 1982. *B. tenue* var. *khasianum* C.B. Clarke in Hook.f., Fl. Brit. India 2: 677. 1879. [Apiaceae]

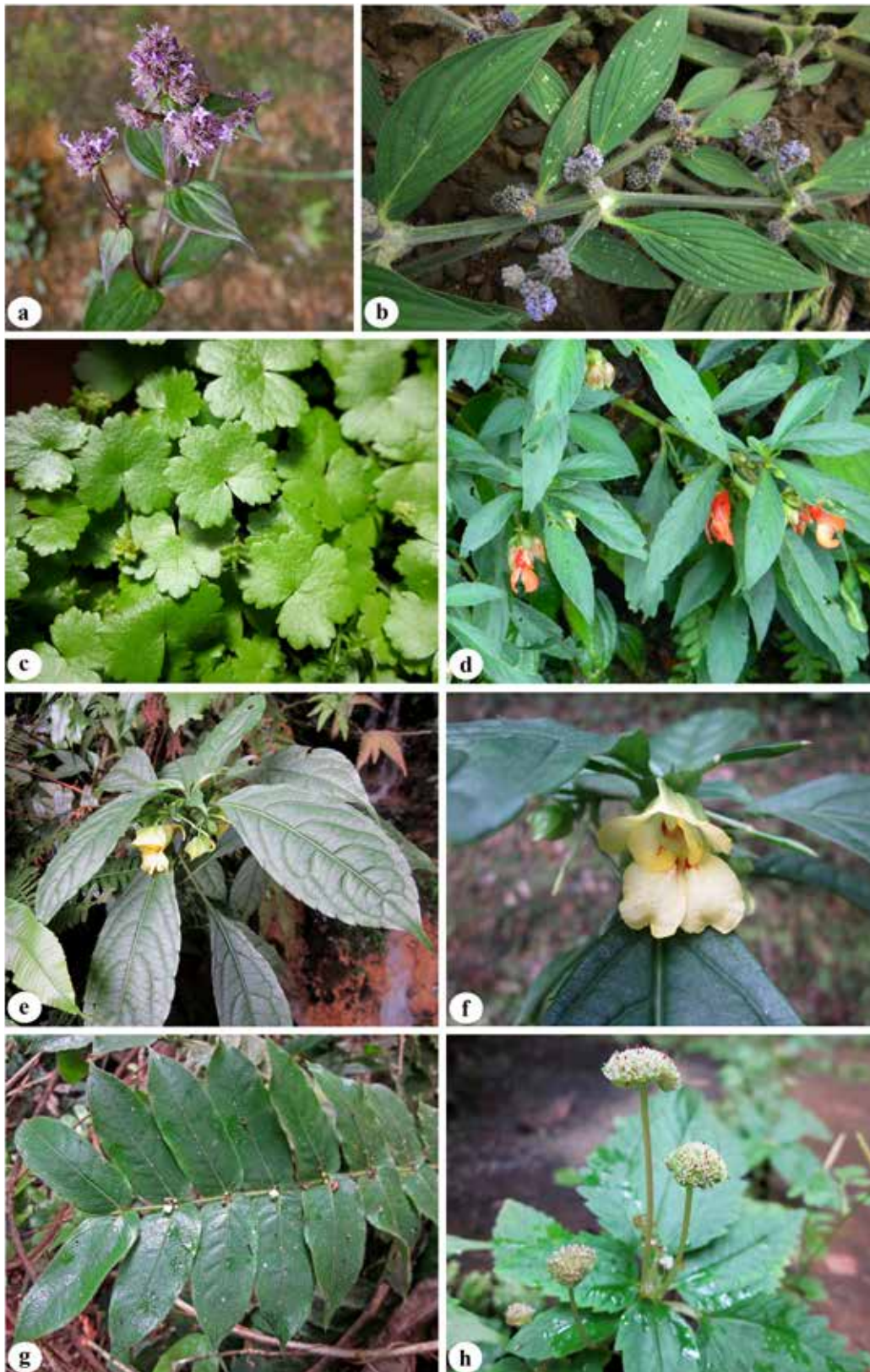


Figure 2: **a.** *Hedyotis uncinella* Hook. & Arn. (Rubiaceae), **b.** *Hedyotis vestita* R. Br. ex G. Don (Rubiaceae), **c.** *Hydrocotyle sibthorpioides* Lam. (Apiaceae), **d.** *Impatiens acuminata* Benth. ex Hook.f. & Thomson (Balsaminaceae), **e & f.** *Impatiens laevigata* var. *grandifolia* Hook.f. (Balsaminaceae), **g.** *Lasianthus attenuatus* Jack (Rubiaceae), **h.** *Lecanthus peduncularis* (Wall. ex Royle) Wedd. (Urticaceae).

Herbs, perennial, 80–110 cm tall. Roots stock woody. Stem dichotomously branched. Leaves petiolate; petiole sheathing the stem; lamina lanceolate, 5–8 × 3–6 cm, base usually tapering into petiole, acute at apex. Cauline leaves sessile, clasping. Inflorescence a loose umbels, 4–10-flowered, compound, terminal or axillary; peduncle slender, 2–4 cm long. Calyx teeth obsolete. Petals greenish-yellow, with often purple tinged. Stylopodium conic; styles short, reflexed. Cremocarps ovoid-oblong, 4 × 1.5 mm. Carpophore 2-cleft to base.

Flowering and fruiting: September–January.

Distribution: India (Meghalaya, Mizoram); Bangladesh, Nepal.

Specimens examined: Phawngpui N.P., Peak area, 1540 m, 25.09.2012, S. Panday & B.K. Sinha 125830; way from Farpak to Sabual, 1570 m, 28.10.2011, S. Panday & B.K. Sinha 123615.

Burmattia candelabrum Gagnep., Bull. Soc. Bot. France 54: 462.1907; Hajra in Nayar & al. Fasc. Fl. Ind. 19: 7. 1988. [Burmattiaceae]

Herbs, saprophytic, 6–15 cm tall, filiform. Scales c. 2 mm long, lanceolate, acute. Flowers solitary, 8–10 mm long, prominently 3-winged, blue; bracts c. 2 mm long, lanceolate. Outer perianth lobes without lateral lobes, ovate, rounded, with a thick fleshy bag on inner side. Inner lobes small, lanceolate. Perianth-tube c. 2 mm long, cylindrical. Connective oblong, with 2 lateral arms; crests two, acute, divergent; spur basal, acute. Ovary 4–6 mm long, clavate, style filiform, stigmas funnel-shaped, sessile. Capsules obovoid.

Flowering and fruiting: August–November.

Distribution: India (Kerala, Meghalaya, Mizoram); Bangladesh.

Specimen examined: Phawngpui N.P., Thaltlang, 1550 m, 31.10.2011, S. Panday & B.K. Sinha 123697.

Cotula anthemoides L., Sp. Pl. 891.1753; Hook.f., Fl. Brit. India 3: 316. 1881; B.D. Naithani in Hajra & al. (eds.), Fl. India 12: 52. 1995. [Asteraceae]

Herbs, procumbent, pale-green, glabrous, with several, c. 20 cm long branches from the base. Leaves subsessile, ovate-oblong, 2–4 × 1.5–3 cm, bipinnatisect with narrowly oblong, acute ultimate segments. Capitula subglobose, yellow, 3–6 mm across, solitary, 4–5 cm long peduncles. Involucre saucer shaped, phyllaries narrowly oblong, c. 1.5 × 1 mm. Receptacle flat. Outer florets female with an inconspicuous corolla. Disc-florets bisexual, fertile, with c. 2 mm long, campanulate corolla. Cypselas narrowly winged, ovate, c. 1 mm long, pale-brown.

Flowering and fruiting: March–June.

Distribution: India (Assam, Meghalaya, Mizoram); Bhutan, China, Japan, Malaysia, South Africa, Vietnam.

Specimen examined: Phawngpui N.P., Peak area, 2200 m, 03.04.2011, S. Panday & B.K. Sinha 119620.

Eriocaulon luzulifolium Mart., Pl. Asiat. Rar. 3: 28. 1832; Hook.f., Fl. Brit. India 6: 582. 1893; A.S. Rao & D.M. Verma, Bull. Bot. Surv. India 18(1–4): 47. 1976. [Eriocaulaceae]

Herbs, annual. Leaves linear-lanceolate, 2.5–5.5 cm × 3–4 mm. Scapes 8–18 cm long; sheath 2.5–5 cm; receptacle villous; heads obconic-globose, blackish, 3.5–5 mm across; involucre bracts lanceolate, 2.5–3 × 1.5–2 mm, papery; floral bracts oblanceolate, c. 1.5 mm, blackish. Male flowers: sepals 3, blackish, spathe-like, flat, c. 2 mm; petals 3, lanceolate; stamens 6, anthers black. Female flowers: sepals 3, oblanceolate, free, c. 2 × 0.5 mm, blackish; petals 3, oblanceolate; ovary 3-loculed; style 3-cleft; seeds ellipsoid, brown, c. 0.5 mm across.

Flowering and fruiting: July–October.

Distribution: India (Assam, Meghalaya, Mizoram, Tamil Nadu); China, Thailand.

Specimen examined: Phawngpui N.P., Farpak to Peak area, 1950 m, 26.10.2011, S. Panday & B.K. Sinha 123540.

Euphorbia heterophylla L., Sp. Pl. 453. 1753; Binojk. & N.P. Balakr. in N.P. Balakr. & al. (eds.), Fl. India 23: 330. 2012. [Euphorbiaceae]

Herbs, annual, 50–90 cm tall. Leaves alternate below, opposite above; stipules purplish glands; petiole 2–4 cm long; lamina elliptic-oblong or ovate-lanceolate, 8–12 × 4–6 cm, cuneate at base, obtuse at apex. Cymes terminal, cyathia densely clustered; basal bracts similar to leaves, pale green. Cyathia c. 4 × 3 mm; involucre glabrous; glands funnel-shaped, reddish; lobes c. 1.5 mm. Male flowers: stamens c. 4 mm. Female flower: ovary pedicellate, minutely pubescent; styles c. 1 mm. Fruiting pedicel c. 6 mm; capsules 3-lobed, c. 4 × 6 mm; seeds conical, brown.

Flowering and fruiting: June–December.

Distribution: India (Introduced as weed in some states); Native to America.

Specimens examined: Phawngpui N.P., way from Sangau to Thaltlang, 1410 m, 08.05.2012, S. Panday & B.K. Sinha 123709; Thaltlang, 1480 m, 08.05.2012, S. Panday & B.K. Sinha 123761.

Hedychium longipedunculatum Sastry & D.M. Verma, J. Bombay Nat. Hist. Soc. 65: 293. 1968. [Zingiberaceae]

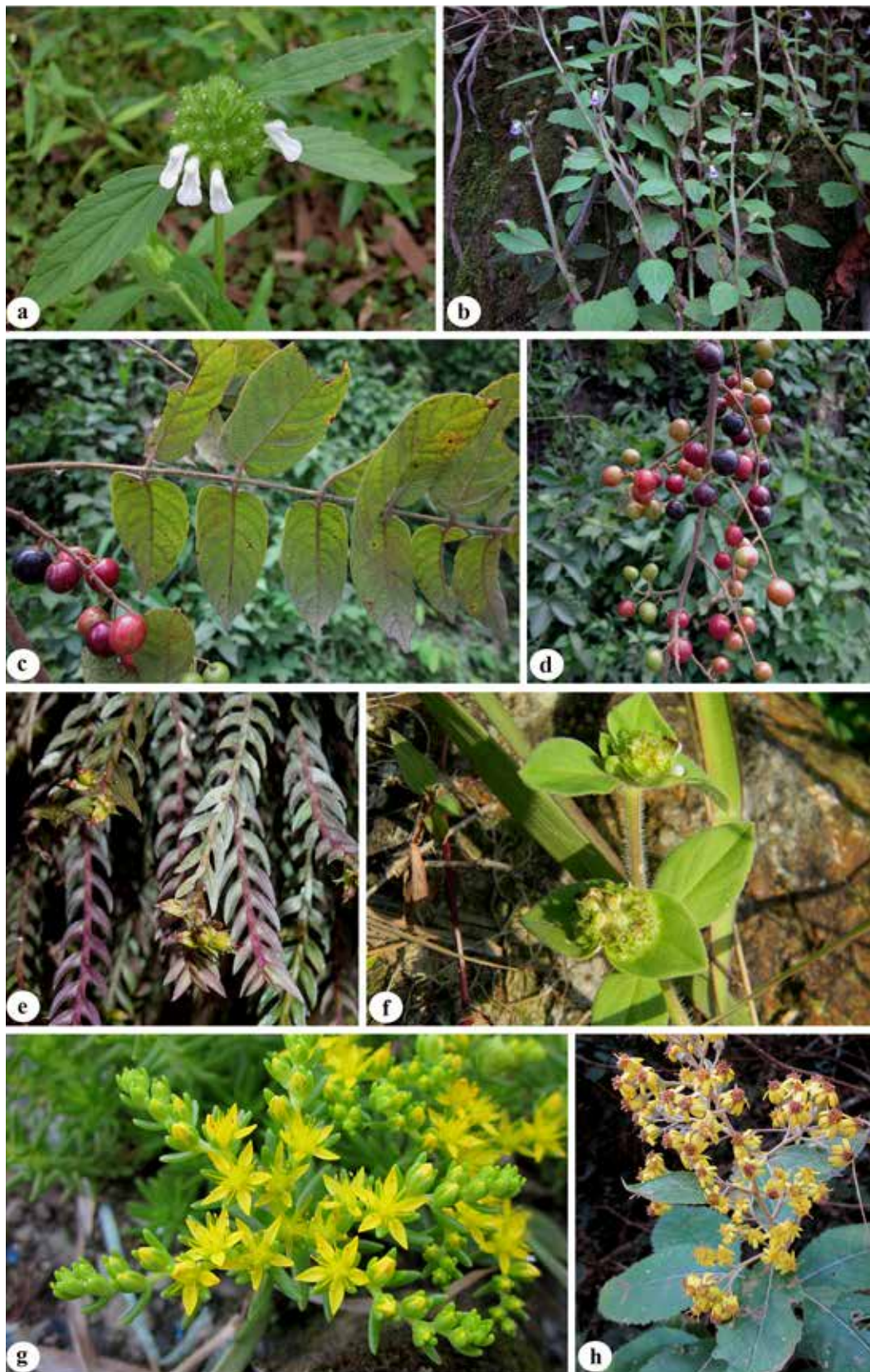


Figure 3: a. *Leucas cephalotes* (Roth) Spreng. (Lamiaceae), b. *Lobelia heyneana* Schult. (Campanulaceae), c & d. *Pegia nitida* Colebr. (Anacardiaceae), e. *Podochilus khasianus* Hook.f. (Orchidaceae), f. *Richardia scabra* L. (Rubiaceae), g. *Sedum multicaule* Wall. ex Lindl. (Crassulaceae), h. *Senecio densiflorus* Wall. ex DC. (Asteraceae).

Herbs, annual, epiphytic with creeping rhizomes. Pseudostem 20–42 cm tall. Leaves 4–6; petiole 5–15 mm long; ligules c. 2 cm long; lamina 10–24 × 4–10 cm, oblong-elliptic. Peduncle 10–14 cm long; spikes many flowered, 4–6 cm long; bracts 10 × 6 mm, triangular; bracteoles c. 6 × 4 mm, ovate. Flowers c. 3 cm long, creamy yellow. Calyx tubular, c. 1 cm long. Corolla tube c. 1 cm long; segments 3. Lateral staminodes 2, petaloid, cream coloured. Labellum bilobed. Stamens: filament 10–14 mm long; anther 6 mm long. Ovary 3 mm across; style filiform, 2.8 cm long; stigma cup-shaped, c. 1 mm broad, ciliate. Capsules subglobose, 3-angled, 1.5 cm across.

Flowering and fruiting: May–September.

Distribution: India (Arunachal Pradesh, Mizoram, Nagaland); endemic to North-east India.

Specimen examined: Phawngpui N.P., Vawmbuk I.B., 1340 m, 28.11.2012, S. Panday & B.K. Sinha 129212.

Hedyotis uncinella Hook. & Arn., Bot. Beechey Voy. 192. 1833; Hook.f., Fl. Brit. India 3: 56. 1880; N.P. Balakr., Fl. Jowai 1: 244. 1981. [Rubiaceae]

Herbs, perennial, erect, 50–70 cm tall. Leaves opposite; petiole c. 2.5 mm; lamina elliptic-ovate, 4–8 × 2–4 cm, rounded at base, acute at apex; stipules triangular, 2–3.5 mm. Inflorescence terminal, 8–15 mm across, globose, many flowered; bracts lanceolate, 0.5–2 mm. Flowers sessile. Calyx pilosulous; hypanthium subglobose, c. 1 mm; limb lobes triangular, 2.5–4 mm, ciliolate. Corolla purple to pinkish violet, funnellform, c. 5 mm. Anthers exserted, c. 1 mm. Stigma c. 1 mm, included. Capsules subglobose, 1.5–2 × 1.8–2 mm; seeds pale brown, angled.

Flowering and fruiting: April–September.

Distribution: India (Meghalaya, Mizoram, Sikkim); China, Myanmar.

Specimen examined: Phawngpui N.P., Farpak, 1900 m, 29.10.2011, S. Panday & B.K. Sinha 123657.

Hedyotis vestita R. Br. ex G. Don, Gen. Hist. 3: 526. 1834; Hook.f., Fl. Brit. India 3: 58. 1880; N.P. Balakr., Fl. Jowai 1: 246. 1981. [Rubiaceae]

Herbs, annual, 25–50 cm tall. Leaves opposite; petiole 4–10 mm, densely hirtellous; lamina elliptic-lanceolate, 4–8 × 1–3 cm, obtuse at base, acuminate at apex; stipules triangular, 2–4 mm. Inflorescence axillary, cymose, capitate, 5–20 mm across; bracts c. 1 mm. Flowers subsessile, distylous. Calyx densely hirtellous; lobes lanceolate, c. 1 mm. Corolla pale purple or whitish blue, funnellform; tube 1.2–1.5 mm; lobes c. 1.2 mm. Anthers c. 1 mm, exserted. Stigma c. 1 mm, exserted. Capsules subglobose, 0.8–1.5 mm across; seeds 6–8, black, trigonous.

Flowering and fruiting: July–November.

Distribution: India (Andaman & Nicobar Isl., Arunachal Pradesh, Assam, Meghalaya, Mizoram, West Bengal); Bangladesh, China, Indonesia, Malaysia, Philippines, Thailand.

Specimen examined: Phawngpui N.P., Farpak, 1800 m, 30.10.2011, S. Panday & B.K. Sinha 123675.

Hydrocotyle sibthorpioides Lam., Encycl. 3: 153. 1789. *H. rotundifolia* Roxb., Fl. Ind., 2: 88. 1832. [Apiaceae]

Herbs, annual, diffusely branched, 15–25 cm long. Petiole 1–4 cm long, filiform; stipules elliptic; lamina orbicular or reniform-rounded, 5–15 × 10–24 mm, deeply cordate at base, shallowly 5–7-lobed. Umbels solitary at the nodes, densely capitate, 5–10-flowered; peduncles filiform, 10–35 mm long; pedicels obsolete. Involucre of 4–8 ovate-lanceolate bracts. Petals greenish white, c. 1 mm, with yellow glands. Styles c. 1 mm, whitish. Cremocarps broadly globose, flattened laterally, greenish yellow.

Flowering and fruiting: March–August.

Distribution: India (Arunachal Pradesh, Assam, Meghalaya, Mizoram, Uttarkhand, West Bengal); Bangladesh, Bhutan, China, Indonesia, Japan, Korea, Nepal, Thailand, Vietnam.

Specimen examined: Phawngpui N.P., Peak area, 2200 m, 03.04.2011, S. Panday & B.K. Sinha 119661.

Impatiens acuminata Benth. ex Hook.f. & Thomson, J. Proc. Linn. Soc. Bot. 4(15): 145. 1859. [Balsaminaceae]

Herbs, perennial, 20–40 cm tall. Leaves alternate; petiole c. 1.5 cm long; lamina lanceolate, 4–9 × 0.5–2.5 cm; lateral veins 8–10 pairs. Inflorescence axillary, 4–8 cm long raceme, 1–3-flowered. Pedicels 2–3 cm long. Flowers red, c. 3 cm across; bracts ovate-oblong. Lateral sepals 4; outer 2 sepals ovate; inner 2 sepals lanceolate. Lower sepal saccate, narrowed into c. 2.5 cm long spur. Upper petal orbicular; lateral united petals 2-partite. Anthers obtuse. Capsules ellipsoid, c. 15 × 6 mm. Seeds c. 1 mm, ellipsoid, black.

Flowering and fruiting: July–October.

Distribution: India (Meghalaya, Mizoram); endemic to NE India.

Specimen examined: Phawngpui N.P., Vawmbuk east, 1440 m, 26.09.2012, S. Panday & B.K. Sinha 125858 (ASSAM).

Impatiens laevigata var. **grandifolia** Hook.f., Bull. Misc. Inform. Kew 1910: 299. 1910. [Balsaminaceae]

Herbs, perennial, woody, 0.5–1 m tall. Leaves alternate; petiole 3–7 cm long; lamina oblanceolate, 7–18 × 4–6

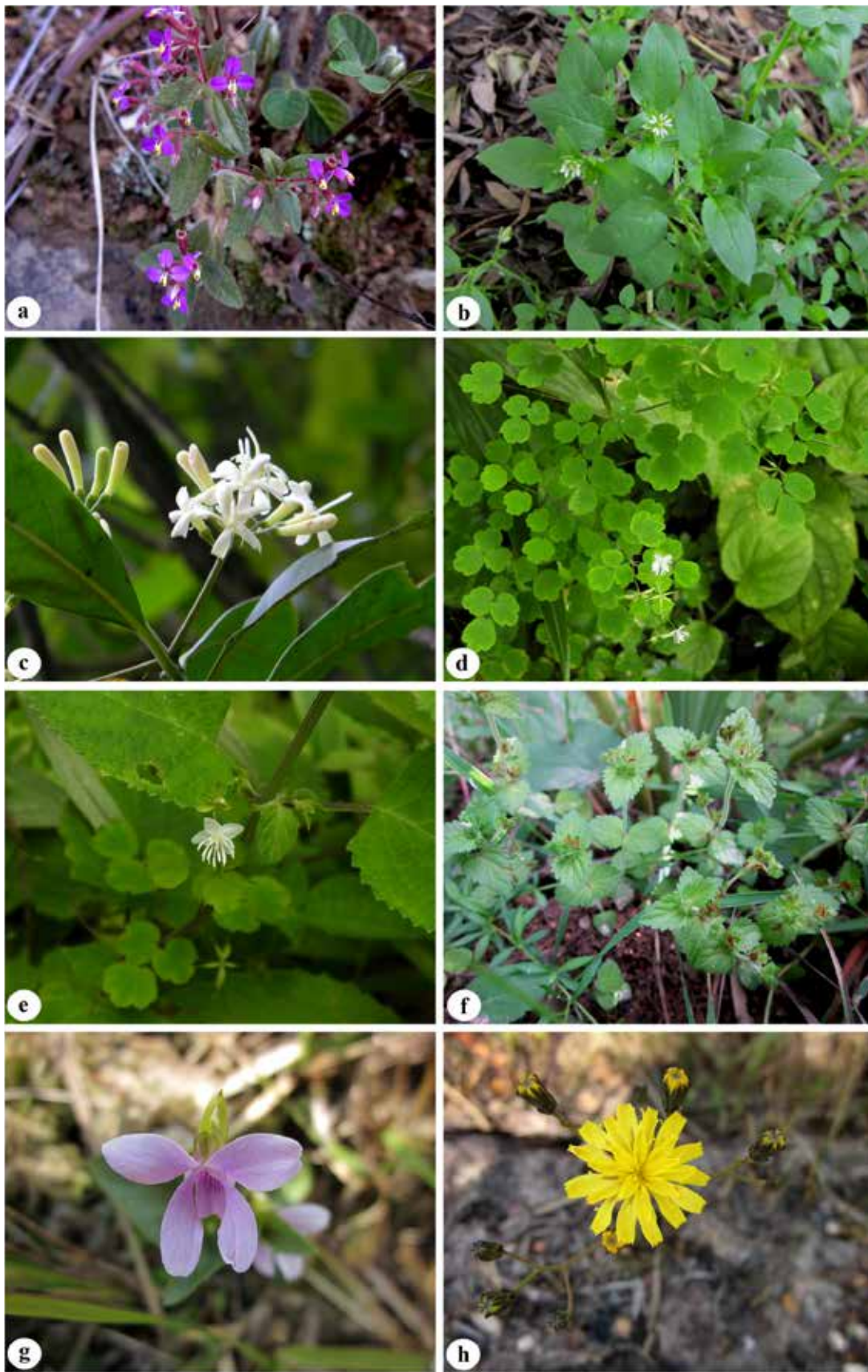


Figure 4: a. *Sonerila stricta* Hook. (Melastomataceae), b. *Stellaria media* (L.) Vill. (Caryophyllaceae), c. *Tarenna asiatica* (L.) Kuntze ex K. Schum. (Rubiaceae) d & e. *Thalicttrum foliosum* DC. (Ranunculaceae), f. *Veronica javanica* Blume (Scrophulariaceae), g. *Viola sikkimensis* W. Becker (Violaceae), h. *Youngia silhetensis* (DC.) Babcock & Stebbins (Asteraceae).

cm. Inflorescence 1–4 flowered, axillary, subumbellate. Peduncles slender, c. 1 cm long. Bracts oblong. Flower pale yellow, tinged with deep red. Pedicel c. 2 cm long. Sepals 4, outer two orbicular, greenish yellow; inner two falcate, pale yellow. Upper petal reniform, whitish-green. Lateral united petals pinkish yellow, streaked with red. Lower sepal funnel shaped; base narrowed forms 16–20 mm long incurved spur. Stamens 5; anthers obtuse; filaments c. 7 mm long. Ovary cylindrical, 4-chambered. Capsules linear, 3 × 6 mm.

Flowering and fruiting: July–September.

Distribution: India (Arunachal Pradesh, Assam, Manipur, Mizoram); endemic to NE India.

Specimen examined: Phawngpui N.P., Vawmbuk east, 1440 m, 26.09.2012, S. Panday & B.K. Sinha 125857.

Lasianthus attenuatus Jack, Trans. Linn. Soc. London 14: 126. 1823. *Lasianthus wallichii* Wight, Calcutta J. Nat. Hist. 6: 503. 1846. [Rubiaceae]

Local name: *Ruih-thing* (Mizo).

Shrubs, 1–2 m tall; branches and branchlets hirsute. Stipules triangular, c. 3 mm; petiole 1–3 mm long; lamina subleathery, elliptic-lanceolate, 5–10 × 2–5 cm, cordate at base, acuminate at apex; lateral veins 6–8 pairs. Inflorescence cymose, sessile; bracts persistent, lanceolate, 8–13 mm long. Flowers sessile. Calyx densely hirsute; hypanthium campanulate, c. 1 mm across; limb c. 2 mm, with 5 teeth. Corolla whitish, glabrescent outside, villous inside; tube 8–10 mm long; lobes 5, spatulate, c. 5 mm. Drupes globose, 6–10 mm across, hirsute, smooth, Prussian blue.

Flowering and fruiting: April–September.

Distribution: India (Assam, Meghalaya, Mizoram, Nagaland); Bhutan, Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Thailand, Vietnam.

Specimen examined: Phawngpui N.P., Vawmbuk east, 1440 m, 26.09.2012, S. Panday & B.K. Sinha 125898.

Lecanthus peduncularis (Wall. ex Royle) Wedd., Prodr. 16(1): 164. 1869. *Procris peduncularis* Wall. ex Royle, Illust. Bot. Himal. Mts., pl. 83, f. 2. 1839. [Urticaceae]

Herbs, perennials, succulent, 25–50 cm tall. Leaves rosette in appearance; stipules oblong; petiole 4–7 cm long; lamina ovate-oblong, 5–12 × 2–5 cm, tri-nerved. Flower head greenish white, on discoid receptacles. Male inflorescence capitate, 8–35 mm across; peduncle 5–20 cm long; flowers pedicellate, perianth lobes 5; stamens 5. Female inflorescence 5–10 mm across; peduncle 3–12 cm long; flowers shortly pedicellate, perianth lobes 3–4, subequal, oblong-obovate; staminodes elliptic-oblong, c.

0.8 mm. Achene brownish, compressed, c. 1 mm.

Flowering and fruiting: July–November.

Distribution: India (Arunachal Pradesh, Assam, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tamil Nadu); Bhutan, China, Indonesia, Nepal, Philippines, Sri Lanka, Vietnam.

Specimen examined: Phawngpui N.P., Vawmbuk east, 1440 m, 26.09.2012, S. Panday & B.K. Sinha 125868.

Leucas cephalotes (Roth) Spreng., Syst. Veg. 2: 743. 1825. *Phlomis cephalotes* Roth, Nov. Pl. Sp. 262. 1821. [Lamiaceae]

Herbs, annual, 50–80 cm tall. Leaves lanceolate, 5–10 × 1–2 cm, cuneate at base, margin crenate-serrate, acute at apex. Verticillasters terminal, globose, many flowered, c. 5 cm across; bracts narrow lanceolate. Calyx tubular, c. 2 cm, slightly curved, softly pubescent. Corolla white, 2-lipped, tube included in calyx, upper lip straight, galeate, densely villous outside; lower lip longer, 3-lobed. Stamens ascending beneath upper lip of corolla, close together in pairs; anther cells 2, ovoid, divaricate. Style 2-cleft at apex. Nutlets ovoid, triquetrous.

Flowering and fruiting: March–April.

Distribution: India (Assam, Madhya Pradesh, Maharashtra, Meghalaya, Mizoram, Tamil Nadu, West Bengal); Afghanistan, Bhutan, China, Nepal.

Specimen examined: Phawngpui N.P., Peak area, 2200 m, 03.04.2011, S. Panday & B.K. Sinha 123532.

Lobelia heyneana Schult., Syst. Veg. 5: 50. 1819. *Lobelia trialata* Buch.-Ham. ex D. Don, Prodr. Fl. Nepal. 157. 1825. [Campanulaceae]

Herbs, annual, 20–40 cm tall. Leaves alternate; petiole 2–4 mm, winged; lamina broadly deltoid-ovate, 1.5–2.5 × 1–2.5 cm, cordate at base, rounded at apex. Flowers solitary, axillary; bracts elliptic c. 1.5 cm; pedicels 1–2 cm long; bracteoles subulate, c. 1 mm. Hypanthium campanulate, c. 2 mm; calyx lobes subulate, c. 3 mm. Corolla pale purple, c. 5 mm long; limb 2-lipped, linear; lower lobes elliptic, c. 2 mm. Stamens connate; anther tube c. 1 mm. Capsules oblong, 4–5 × 2–4 mm; seeds pale brown, ellipsoid.

Flowering and fruiting: June–December.

Distribution: India (Karnataka, Kerala, Madhya Pradesh, Meghalaya, Mizoram, Tamil Nadu); Bhutan, China, Indonesia, Laos, Myanmar, Nepal, Sri Lanka, Thailand.

Specimens examined: Phawngpui N.P., way from Thaltlang to Farpak, 1610 m, 24.10.2011, S. Panday & B.K. Sinha 121952; Peak area, 1680 m, 29.11.2012, S. Panday & B.K. Sinha 129259.

Pedicularis clarkei Hook.f., Fl. Brit. India 4: 310. 1884; Husain et al., Genus *Pedicularis* L. (Scrophulariaceae) in India. 133. 2010. [Scrophulariaceae]

Herbs, perennial, 50–70 cm tall, rigid. Leaves alternate, linear oblong, pinnatifid, 40–60 × 7–12 mm, base auriform; segments 15–25 pairs, ovate-oblong, dentate. Inflorescence rigid, dense; bracts leaflike with long crenate pinnatifid tip. Pedicel 2–3 mm long. Calyx oblong, c. 1.5 cm, 5-lobed. Corolla purple; tube 1.5–2 cm long; beak of galea c. 5 mm; lower lip ciliate. Filaments white, glabrous. Capsules ovoid, c. 1.5 cm, apiculate; seeds compressed, pale yellow.

Flowering and fruiting: July–September.

Distribution: India (Meghalaya, Mizoram, Nagaland, Sikkim); Bhutan, China, Nepal.

Specimen examined: Phawngpui N.P., Farpak grassland, 1650 m, 26.10.2011, S. Panday & B.K. Sinha 123557.

Pegia nitida Colebr., Trans. Linn. Soc. London 15(2): 364. 1827; D. Chandra & Mukherjee in N.P. Singh & al. (eds.), Fl. India 5: 479. 2000. *Tapiria hirsuta* (Roxb.) Hook.f., Gen. Pl. 1: 423. 1862; Hook.f., Fl. Brit. India 2: 28. 1876; Kanjilal & al., Fl. Assam 1: 339. 1936. [Anacardiaceae]

Scandent shrubs; branchlets brown, densely yellow tomentose. Leaves 25–40 cm long, imparipinnately compound with 9–14 opposite leaflets; lamina ovate-elliptic, 5–10 × 2–4 cm, papery, cordate at base, margin serrate, acute at apex. Inflorescence paniculate, 20–30 cm long. Flower small, white; pedicel slender, c. 1.5 mm. Calyx glabrous, c. 1 mm. Petals ovate, c. 1.5 × 1 mm. Stamens 10, c. 1 mm; filament filiform. Disk 5-lobed, flat. Ovary 5-celled, ovoid, c. 1 mm across; styles 5, c. 0.5 mm; stigmas 5. Drupes ellipsoid, c. 10 × 8 mm; seeds compressed.

Flowering and fruiting: January–July.

Distribution: India (Arunachal Pradesh, Assam, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, West Bengal); Bhutan, Borneo, China, Laos, Myanmar, Nepal, Thailand, Vietnam.

Specimen examined: Phawngpui N.P., Thaltlang, 1500 m, 08.05.2012, S. Panday & B.K. Sinha 123765.

Podochilus khasianus Hook.f., Fl. Brit. India 6: 81. 1890; Katak, Orch. Meghalaya 190. 1986. [Orchidaceae]

Herbs, epiphytic. Stems tufted, 8–14 cm long. Leaves many, distichous; lamina often slightly oblong-lanceolate, 6–8 × 1.5–2.5 mm, sub-fleshy, margin incurved, acute at apex. Inflorescence terminal, 3–5 mm long, 2–5-flowered; floral bracts ovate, c. 2 mm, 3–5-veined. Flowers small, white tinged with green; pedicellate ovary c. 1 mm. Dorsal sepal lanceolate, c. 2.5 × 1.5 mm; lateral sepals ovate, 2.5

mm. Petals oblong, c. 1.5 × 1 mm; lip oblong, 2.5 × 1 mm, slightly contracted at middle, slightly incurved. Column short. Capsules ellipsoid, 3 × c. 2 mm.

Flowering and fruiting: September–December.

Distribution: India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Sikkim, West Bengal); Bangladesh, Bhutan, China, Myanmar, Vietnam.

Specimen examined: Phawngpui N.P., Peak area, 2200 m, 04.04.2011, S. Panday & B.K. Sinha 119694.

Richardia scabra L., Sp. Pl. 330. 1753. *Richardsonia pilosa* (Ruiz & Pav.) Kunth, Nov. Gen. Sp. 3: 350. 1819. [Rubiaceae]

Herbs, annual, decumbent, 20–80 cm long, hirsute. Leaves petiolate; petiole 5–10 mm; lamina ovate-elliptic, 2–5 × 1–3.5 cm, cuneate at base, acute or obtuse at apex; stipule sheaths c. 3 mm, pilose, with 5–12 setae. Inflorescence c. 1 cm across, enclosed by paired leaflike bracts. Calyx obovoid, 1–1.5 mm, hispidulous; lobes 6, lanceolate, margins ciliate. Corolla white, glabrous inside; tube 4–8 mm; lobes 6, c. 3 mm. Capsules with 3 mericarps, ellipsoid, triangular, 2–3.5 mm across.

Flowering and fruiting: April–November.

Distribution: India (Assam, Karnataka, Kerala, Meghalaya, Mizoram, Tamil Nadu); Bhutan, China, Myanmar, Nepal, Thailand, Vietnam.

Specimen examined: Phawngpui N.P., Peak area, 2150 m, 03.04.2011, S. Panday & B.K. Sinha 119669.

Sedum multicaule Wall. ex Lindl., Edwards's Bot. Reg. 26(misc.): 58 1840; C.B. Clarke in Hook.f., Fl. Brit. India 2: 422. 1879. [Crassulaceae]

Herbs, perennial. Stems greenish to reddish brown, decumbent, 5–15 cm long. Basal leaves rosulate, cauline leaves alternate; lamina linear-lanceolate, 1–1.5 × 0.2 cm, base shortly spurred, margin entire, acuminate at apex. Cymes with several scorpioid branches. Flowers very shortly pedicellate, 5-merous. Sepals linear-lanceolate, 5–6.5 mm. Petals yellow, oblongovate, 5–6 mm. Stamens 10, 2–4 mm long. Nectar scales spatulate, emarginate at apex. Carpels connate at base, horizontally spreading in fruit; style short. Follicles 4–6 mm; seeds ovoid, c. 1 mm.

Flowering and fruiting: July–September.

Distribution: India (Arunachal Pradesh, Assam, Himachal Pradesh, Meghalaya, Mizoram, Sikkim, West Bengal); Bhutan, China, Myanmar, Nepal.

Specimens examined: Phawngpui N.P., Peak area, 1850 m, 26.10.2011, S. Panday & B.K. Sinha 123528; Thaltlang, 1450 m, 08.05.2012, S. Panday & B.K. Sinha 123733.

Senecio densiflorus Wall. ex DC., Prodr. 6: 369. 1837; Hook.f., Fl. Brit. India 3: 355. 1881; Kanjilal & al., Fl. Assam 3: 123. 1939. [Asteraceae]

Herbs, woody or undershrubs, biennial, 1–1.5 m tall. Leaves alternate; petiole c. 2.5 cm long; lamina obovate, 6–15 × 1–2.5 cm, both surfaces tomentose, cuneate at base, margin doubly serrate, acuminate at apex; lateral nerves 10–15 pairs. Heads 30–50 in terminal and axillary corymbose panicles. Calyculi conspicuous; bractlets 2.5–4 mm. Phyllaries 15–20, green, c. 6 mm. Ray florets 8–13, yellow; corolla c. 9 mm. Disc florets 35–50; corolla tubes c. 3.5 mm, limbs c. 3 mm. Anthers yellow. Cypselae c. 1.5 mm; pappus c. 4 mm long, white.

Flowering and fruiting: May–October.

Distribution: India (Assam, Meghalaya, Mizoram); Bhutan, China, Myanmar, Nepal.

Specimens examined: Phawngpui N.P., Peak area, 1900 m, 31.10.2011, S. Panday & B.K. Sinha 123689; way from Thaltlang to Farpak, 1540 m, 10.05.2012, S. Panday & B.K. Sinha 123790.

Sonerila stricta Hook., Bot. Mag. 74: t. 4394. 1848; C.B. Clarke in Hook.f., Fl. Brit. India 2: 530. 1879. [Melastomataceae]

Herbs, annual, 5–8 cm tall. Leaves opposite, green or green-purple; petiole c. 2 mm long, reddish-brown; lamina linear-lanceolate, 3–6 × 0.5–1.5 cm, rounded at base, coarsely serrated at margins, acute at apex; veins 3. Spikes terminal, scorpioid cymes, 6–9-flowers; peduncles 4–5 cm long, hairy, purplish. Flowers c. 1 cm across, purplish-pink. Calyx tube adherent. Corolla ovate, 4–5 mm, pinkish-purple. Stamens 3, c. 6 mm, exerted; anthers c. 5 mm, yellow. Ovary flask-shaped; style filiform. Capsules oblong, c. 5 mm, funnel shaped, red.

Flowering and fruiting: September–December.

Distribution: India (Meghalaya, Manipur, Mizoram); Myanmar, Nepal.

Specimen examined: Phawngpui N.P., Peak area, 1540 m, 25.09.2012, S. Panday & B.K. Sinha 125820.

Stellaria media (L.) Vill., Hist. Pl. Dauphiné 3: 615. 1789; Edgew. & Hook.f. in Hook.f., Fl. Brit. India 1: 230. 1874, p.p.; N.C. Majumdar in B.D. Sharma & al. (eds.), Fl. India 2: 585. 1993. *Alsine media* L., Sp. Pl. 272. 1753. [Caryophyllaceae]

Herbs, annual, 10–30 cm tall. Leaves opposite; petiole 1–1.5 cm long; lamina broadly ovate-orbicular, 1–2.5 × 1–1.5 cm, narrowed at base, margin entire, acute at apex; lateral nerves 3–5 pairs. Flowers white in axillary cymes; pedicel 7–14 mm long, slender. Sepals 5, ovate-lanceolate, c. 5 mm. Petals 5, oblong, c. 3 mm, 2-cleft nearly to base,

white; lobes linear. Stamens 5–10, shorter than petals; anthers minute, brick-red. Ovary ovoid; styles 3. Capsules ovoid-oblong, 6-valved; seeds red-brown, c. 1 mm across.

Flowering and fruiting: June–August.

Distribution: India (Arunachal Pradesh, Assam, Karnataka, Kerala, Manipur, Meghalaya, Mizoram, Sikkim, Tamil Nadu); Afghanistan, Bhutan, China, Japan, Korea.

Specimen examined: Phawngpui N.P., Farpak, 1570 m, 10.05.2012, S. Panday & B.K. Sinha 123793.

Stellaria wallichiana Haines, Bull. Misc. Inform. Kew 1920: 66. 1920; Edgew. & Hook.f. in Hook.f., Fl. Brit. India 1: 230. 1874; N.C. Majumdar in B.D. Sharma & al. (eds.), Fl. India 2: 591. 1993. [Caryophyllaceae]

Herbs, annual, 10–25 cm tall. Leaves opposite; petiole 1–2.5 cm long; lamina ovate-lanceolate, 1–2.5 × 1–1.5 cm, cordate at base, wavy at margin, acute at apex; lateral nerves 4 on each side of midrib. Flowers solitary, axillary, white; pedicel c. 15 mm, elongate and nodding after anthesis, slender, sparsely covered with white glandular hairs. Sepals 5, lanceolate, c. 4 mm, acute at apex. Petals 5, oblong, c. 3 mm, 2-cleft, white. Stamens 5; anthers purplish. Styles 5, curved. Capsules ovoid-oblong; seeds brown, globose, c. 1 mm across.

Flowering and fruiting: June–August.

Distribution: India (Assam, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Rajasthan, Uttar Pradesh); Bangladesh.

Specimen examined: Phawngpui N.P., Farpak, 1570 m, 10.05.2012, S. Panday & B.K. Sinha 123792.

Tarenna asiatica (L.) Kuntze ex K. Schum., Bot. Tidsskr. 24: 332. 1902. *Rondeletia asiatica* L., Sp. Pl. 172. 1753. *Webera corymbosa* Willd., Sp. Pl. 1: 1224. 1798; Kanjilal & al., Fl. Assam 3: 51. 1939. [Rubiaceae]

Shrubs, 2–4 m tall. Leaves opposite; petiole 6–12 mm long; stipules triangular; lamina ovate-lanceolate, 10–18 × 3–5 cm, narrowed at base, margin entire, rounded at apex; lateral veins 6–12 pairs. Inflorescence terminal, corymbiform, 8–15-flowered. Flowers white, c. 2 cm long. Calyx green, limb 5-lobed. Corolla white, salverform, pubescent in throat; lobes 5, convolute in bud. Stamens 5, exerted; filaments short; anthers dorsifixed. Ovary 2-celled; style c. 12 mm long; stigma fusiform, 2-lobed, exerted. Berries globose, black; seeds concave.

Flowering and fruiting: March–August.

Distribution: India (Assam, Kerala, Meghalaya, Mizoram); Malaysia, Sri Lanka, South Africa.

Specimen examined: Phawngpui N.P., Peak area, 2368 m,

04.04.2011, S. Panday & B.K. Sinha 121918.

Thalictrum foliolosum DC., Syst. Nat. 1: 175. 1817; Hook.f. & Thomson in Hook.f., Fl. Brit. India 1: 14. 1872; Kanjilal & al., Fl. Assam 1: 7. 1931; M.A. Rau in B.D. Sharma & al. (eds.), Fl. India 1: 136. 1993. [Ranunculaceae]

Herbs, perennial, 0.5–1 m tall, bushy. Stems terete, reddish brown. Leaves pinnately compound; petiole 2–6 cm long; lamina 3-ternate, 20–35 cm; leaflet lamina ovate, 1–2.5 × 0.5–1.5 cm, rounded at base, obtuse at apex, 3-lobed. Inflorescence terminal or axillary, paniculate, c. 20 cm. Bracts foliaceous. Flowers white, 5–8 mm across. Tepals 4, white, elliptic, 2–6 mm long. Stamens 10–15 in number, 6–7 mm; filament filiform, c. 4 mm long, white, exerted; anther oblong, c. 2.5 mm. Carpels 4–6; stigma linear. Achenes ellipsoid, c. 3 mm.

Flowering and fruiting: August–September.

Distribution: India (Arunachal Pradesh, Assam, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Uttar Pradesh, West Bengal); Bhutan, China, Myanmar, Nepal, Pakistan, Thailand.

Specimen examined: Phawngpui N.P., Peak area, 1850 m, 26.10.2011, S. Panday & B.K. Sinha 123527.

Theropogon pallidus (Wall. ex Kunth) Maxim., Bull. Acad. Imp. Sci. Saint-Petersbourg 15: 90. 1871; Hook.f., Fl. Brit. India 6: 324. 1892. *Ophiopogon pallidus* Wall. ex Kunth, Enum. Pl. 5: 300. 1850. [Liliaceae]

Herbs, 12–20 cm tall. Rhizome c. 1 cm thick. Leaves 6–10, arching, 12–35 cm × 4–10 mm, glabrous, midvein conspicuous, acuminate at apex. Scape 25–30 cm tall, usually shorter than leaves. Raceme 4–7 cm long, 6–12-flowered; bracts green, lanceolate-linear, c. 1 cm. Pedicel 1–1.5 cm long, very narrowly winged. Perianth white, campanulate; tepals oblong-ovate, 5–8 × 3–4 mm, 1-veined. Filaments c. 2 mm; anthers subcordate, 2–2.5 mm long. Ovary c. 2.5 mm. Style c. 5 mm long. Berries bluish black when ripe; seeds sub-globose.

Flowering and fruiting: May–June.

Distribution: India (Arunachal Pradesh, Assam, Himachal Pradesh, Meghalaya, Mizoram, Sikkim, Uttarakhand); Bhutan, China, Myanmar, Nepal.

Specimen examined: Phawngpui N.P., way from Farpak to Sabual, 1750 m, 28.10.2011, S. Panday & B.K. Sinha 123634.

Veronica javanica Blume, Bijdr. Fl. Ned. Ind. 14: 742. 1826; Hook.f., Fl. Brit. India 4: 296. 1884. [Scrophulariaceae]

Herbs, annuals, 10–40 cm tall. Leaves opposite; petiole 3–6 mm; lamina ovate-triangular, 2–4 × 1–3 cm, truncate at base, margin deeply dentate, obtuse at apex. Racemes

axillary, subcorymbose, 4–8 cm long; bracts linear, c. 6 mm. Pedicel shorter than bract. Calyx 4-lobed, green, pubescent; lobes elliptic, c. 4 mm. Corolla white, c. 2 mm, slightly 2-lipped; tube c. 1 mm. Stamens c. 2 mm. Capsules compressed, c. 3 × 4 mm, ciliate with persistent style; seeds 4–8 per locule, flattened, c. 0.5 mm.

Flowering and fruiting: February–April.

Distribution: India (Maharashtra, Meghalaya, Mizoram, Sikkim, Tamil Nadu); Bhutan, China, Indonesia, Japan, Laos, Myanmar, Philippines, Vietnam.

Specimen examined: Phawngpui N.P., Farpak, 1570 m, 10.05.2012, S. Panday & B.K. Sinha 123799.

Viola sikkimensis W. Becker, Beih. Bot. Centralbl. 34(2): 260. 1916. *V. hookeri* Thomson in Hook.f., Fl. Brit. India 1: 183. 1872, p.p.; S.P. Banerjee & Pramanik in B.D. Sharma & al. (eds.), Fl. India 2: 374. 1993. [Violaceae]

Herbs, perennial, 5–10 cm tall. Leaves basal; stipules brown, lanceolate, 1–1.2 cm; petiole 3–10 cm long; lamina broadly ovate, 1.5–4 × 1.5–3 cm, cordate at base, margin crenate, obtuse at apex; stipules c. 1 cm, scarious, lanceolate. Peduncles 7–9 cm long. Flowers whitish-pink, c. 1 cm across; bracteoles linear. Sepals lanceolate, 3–5 mm, glabrous, 3-veined. Petals oblong-obovate, 10 × 4 mm, lateral ones glabrous, pale pink; spur c. 2 mm. Ovary conic, glabrous; styles clavate; stigmas 3-lobed. Capsules ovoid-orbicular, c. 5 mm across, with persistent sepals.

Flowering and fruiting: March–June.

Distribution: India (Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Sikkim); Bhutan, Myanmar, Nepal.

Specimen examined: Phawngpui N.P., way from Thaltlang to Farpak, 1520 m, 10.05.2012, S. Panday & B.K. Sinha 123783.

Youngia silhetensis (DC.) Babcock & Stebbins, Gen. Youngia (Publ. Carnegie Inst. Wash. No. 484. 104. 1937; Mamgain & R.R. Rao in Hajra & al. (eds.), Fl. India 12: 330. 1995. *Hieracium silhetense* DC., Prodr. [A.P. de Candolle] 7(1): 218. 1838. *Crepis silhetensis* (DC.) Hook.f., Fl. Brit. India 3(8): 397. 1881. [Asteraceae]

Herbs, annual, 60–140 cm tall. Leaves basal, sessile; lamina lanceolate, 15–30 × 3–4 cm, narrowed at base, margin wavy, acute at apex; lateral veins 5–7 pairs. Synflorescence cymose, with 4–10 capitula; peduncle dichotomously branched. Capitula with 8–30 ray florets, 8–10 mm across, bright yellow. Florets 5-teethed at apex, yellow. Involucre cylindric, linear, 9–15 mm, long. Phyllaries linear-lanceolate, blackish-brown. Anther linear, cylindrical, 5–6 mm, yellow. Style yellow; stigma bi-fid, recurved. Achene glabrous, ribbed, pale-brown, c. 3 mm.

Flowering and fruiting: March–May.

Distribution: India (Meghalaya, Mizoram); Myanmar.

Specimen examined: Phawngpui N.P., Peak area, 2368 m, 03.04.2011, S. Panday & B.K. Sinha 119610.

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