

100 Wild Flowers of Natma Taung

Natma Taung National Park, Chin State, Myanmar

The Kochi Prefectural Makino Botanical Garden, Japan
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Map of Myanmar



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Introduction



Natma Taung (Mt. Victoria) National Park is located close to the border of India and Bangladesh. The National Park encompasses 723 square kilometers of verdant mountainous landscape in the Chin Hills of western Myanmar. The region's arching slopes mostly range between 1,500 m and 2,000 m above sea level, culminating in the lofty ridge of Natma Taung itself – which at 3,053 m forms the heart of the Park – and unfold into the vast Ayeyarwady plains to the east. Natma Taung was inscribed as a national park in 1997 to safeguard its vast assemblage of plant and animal life.

The Chin Hills form part of the Arakan-Yoma Range, a folded mountain belt uplifted in the Miocene Epoch that skirts the Bay of Bengal and bears northwards along Myanmar's western border. From here the peaks rise steadily in elevation until they meet the Himalayas in Manipur, northeastern India.

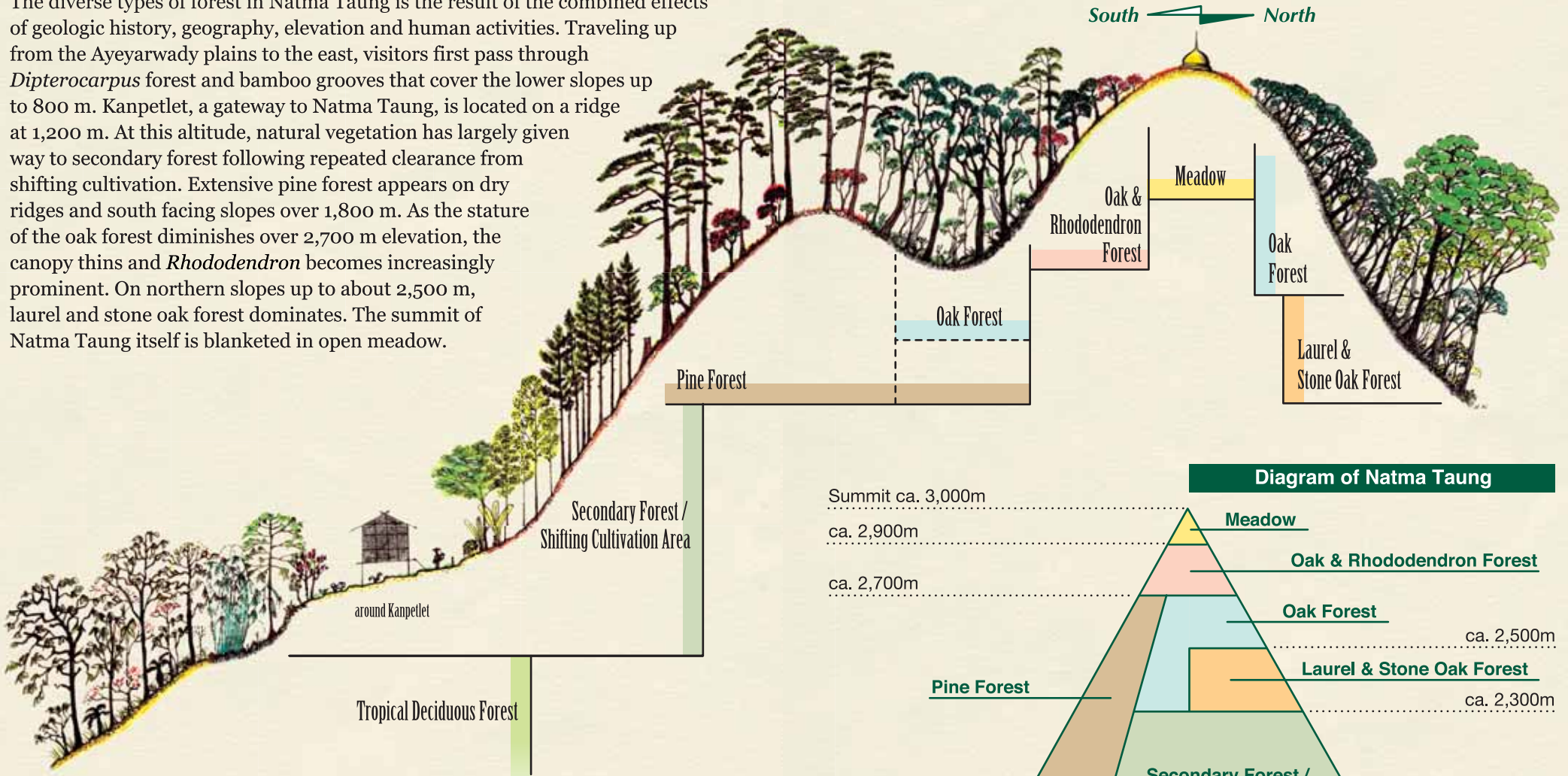


The forest plays an amazingly integral role for the people living in Natma Taung. The wealth of the forest is used by local communities in the form of timber, food, folk medicine, farming and household goods, clothing, local wine, and etc. The people of Natma Taung make their living mostly, or even solely on the rich resources of the surrounding forest.

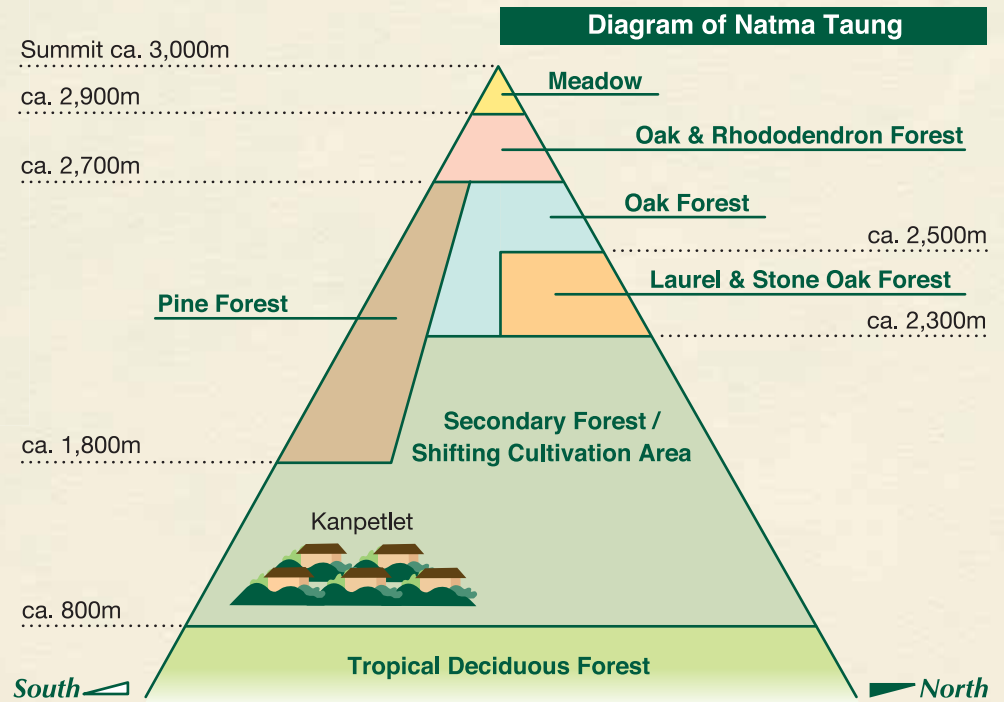


Types of Forest in Natma Taung

The diverse types of forest in Natma Taung is the result of the combined effects of geologic history, geography, elevation and human activities. Traveling up from the Ayeyarwady plains to the east, visitors first pass through *Dipterocarpus* forest and bamboo grooves that cover the lower slopes up to 800 m. Kanpetlet, a gateway to Natma Taung, is located on a ridge at 1,200 m. At this altitude, natural vegetation has largely given way to secondary forest following repeated clearance from shifting cultivation. Extensive pine forest appears on dry ridges and south facing slopes over 1,800 m. As the stature of the oak forest diminishes over 2,700 m elevation, the canopy thins and *Rhododendron* becomes increasingly prominent. On northern slopes up to about 2,500 m, laurel and stone oak forest dominates. The summit of Natma Taung itself is blanketed in open meadow.



The different types of vegetation in Natma Taung are divided into two main categories; one is the natural vegetation, the other is the substitutional vegetation. The natural vegetations are classified as a tropical deciduous forest, a hill evergreen forest and meadow. The substitutional vegetations are seen as a secondary forest around Kanpetlet and teak plantation areas.



Drawn by Mr. N. Kuroiwa and Ms. A. Maeda

Tropical Deciduous Forest



At the foot of Natma Taung, natural seasonal forest is still widespread up to about 800 m. This forest type is dominated by the species of *Dipterocarpus tuberculatus*, trees with large winged fruit, which shed their leaves with the onset of the dry season. Other species include *Buchanania lanzan*, *Butea monosperma*, *Dalbergia oliveri*, *Terminalia alata*, *Haldina cordifolia*, *Wendlandia tinctoria* and etc. Various bamboo species also occupy this area, as well as Teak (*Tectona grandis*) plantations are common at low to mid elevations.



Secondary Forest

Land lying at around 1,200 m altitude is largely used to support the local human population and the little natural vegetation remains around Kanpetlet: patches of scrub and secondary pine (*Pinus kesiya*) forest are interspersed with the scars of shifting cultivation. In its place, sufficient time has elapsed to allow regenerating woodland to attain ten meters or so in height. Scrub has reclaimed disused agricultural land on the slopes around Kanpetlet. *Alnus nepalensis*, *Schima wallichii*, *Kydia calycina*, *Buddleja macrostachya* and etc. – all fast growing trees with wind-dispersed seeds – are typical pioneers that dominate this regenerating woodland. A thick, cork-like bark and the ability to re-sprout form suckers giving them a clear head start in settling this disturbed, fire-prone environment.



Pine Forest



Along exposed ridges and dry outcrops, *Pinus kesiya* forms virtually pure stands under which the vibrant red-flowering *Rhododendron arboreum* and *Lyonia ovalifolia* grow. The wide spacing of the trees allows light to reach the forest floor – perfect conditions for a variety of herbs.



Hill Evergreen Forest



Temperate oaks or laurel form mixed forests around mountains from 2,000 m to 2,900 m elevation. The forest is composed of tall and dense evergreen trees together with climbers and epiphytes. Towering examples such as *Machilus clarkeana*, *Castanopsis tribuloides*, *Lithocarpus xylocarpus* are dominant. Epiphytes such as *Coelogyne corymbosa* adorn the branches of the trees, exploiting a niche amid the tough waxy oak leaves high up in the canopy. The dense crowns cast the forest floor in deep shade, making the sub-canopy and shrub layers somewhat thinner.

Meadow



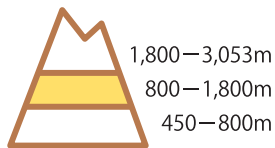
On south-facing slopes, pine forests fade away with increasing elevation and are replaced with mixed *Quercus semecarpifolia* and *Rhododendron arboreum* woodland at around 2,700 m. Continuing up towards the forest limit, the stature of the woodland drops to about 6-7 m, and the trees become more widely spaced. These are a refugia for an amazing variety of upland herbs, many of them more commonly associated with the Himalayas, including *Bistorta yunnanensis*, *Potentilla lineata*, *Swertia racemosa*, *Iris colletii* and etc.



Hikers who make it over and above the wooded slopes are rewarded by the sight of open meadows that cover the peaks and ridges from about 2,900 m. Meadows put on spectacularly colorful displays of *Primula denticulate* and *Anemone obtusiloba* at the end and the beginning of the rainy season. *Potentilla montisvictoriae*, *Himalaiella natmataungensis* and *Roscoea australis* are endemic plant species – those known to occur on the Natma Taung and surrounding area and nowhere else in the world – that also add to the wonder and beauty.



100 Wild Flowers



Altitude Range in Natma Taung National Park

Barleria cristata L. Acanthaceae

Small shrub, 0.6-2 m high. Leaves simple, opposite, elliptic, oblong to ovate, 2-13 cm long, 2-5 cm wide, pubescent, base cuneate, apex acute, margin entire. Inflorescences axillary or terminal; bracteoles with deeply serrate or fimbriate margin. Flowers purple or purplish blue, 4-5 cm long. Fruits capsule, ellipsoid, flatten.

Flowering and fruiting season

September-December.

Distribution

S and SE Asia.



Thunbergia grandiflora (Roxb. ex Rottler) Roxb. Acanthaceae

Climber. Leaves simple, opposite, ovate, broadly and shallowly lobed, 9-20 cm long, 8-10 cm wide, scabrous, base cordate or hastate, apex acute, margin coarsely serrate. Inflorescences axillary, pendulous. Flowers blue or purplish blue, 5-8 cm in diam. Fruits capsule, beak at apex.

Flowering and fruiting season

Almost throughout the year.

Distribution

India, China, SE Asia.



Saurauia napaulensis DC. Actinidiaceae

Tree, 5-12 m high. Leaves simple, alternate, oblong to elliptic, (13-)20-25 cm long, (5-)7.5-9(-12) cm wide, with prominent parallel veins, serrate. Inflorescences axillary peduncled panicles, (15-)20-35 cm long. Flowers pink; petals 5, orbicular-ovate, 6-8 mm long, connate at base. Fruits berry, globose, 6-8 mm in diam., with persistent calyx and styles.

Flowering and fruiting season

February-July.

Distribution

E India, Nepal, SW China, Myanmar, N Thailand, Malaysia.



Viburnum cylindricum Buch.-Ham. ex D. Don Adoxaceae (Caprifoliaceae)

Tree, (1.5-)3-10 m high. Leaves simple, opposite, lanceolate to elliptic, (5-)10-17 cm long, (1.5-)2.5-6 cm wide, coriaceous, glabrous on both surfaces, usually with glands below, tuft domatia often present in nerve axils, base cuneate, apex acute to shortly acuminate, margin entire. Inflorescences terminal umbellate corymbs, flat-topped, 5-7-rayed. Flowers white, tubular, 3-4 mm long. Fruits drupe, ovoid, slightly compressed, 3-4 mm long, black, glabrous.



Flowering and fruiting season

Almost throughout the year.

Distribution

Himalayas, S China, SE Asia.



Sambucus javanica Reinw. ex Blume Adoxaceae (Caprifoliaceae)

Shrub, 2-3 m high; twigs terete with longitudinal furrow. Leaves imparipinnate, opposite, with (1-)3-7(-9) leaflets. Leaflets lanceolate to elliptic, 5-20 cm long, 1.5-7 cm wide. Inflorescences large, showy, flat-topped, 3-5(-7)-rayed; nectarines yellow, obconical, 1-3.5 mm in diam. Flowers slightly fragrant, white, 1.5-2 mm long. Fruits berry, ovoid to globose, 3-4 mm long and wide, black, glabrous.



Flowering and fruiting season

July-December; fruiting: August-January.

Distribution

E and SE Asia.



Cyathula tomentosa (Roth) Moq. Amaranthaceae

Shrubby herb, up to 2 m high; all parts with dense tomentose. Leaves simple, opposite, elliptic, 5-18 cm long, 3-10 cm wide, base obtuse or rounded, apex acuminate, margin entire. Flowers cluster in dense spikes, ca. 2 cm in diam., greenish white, pale green to yellowish green.



Flowering and fruiting season

August-February.

Distribution

India, Nepal, Bhutan, SW China, Myanmar.



Allium wallichii Kunth Amaryllidaceae (Liliaceae)



Bulbous herb; bulbs solitary or clustered, cylindrical; roots elongate, thick. Leaves basal, linear, 20-40 cm long, 0.3-0.5(-1) cm wide, midvein distinct. Inflorescences umbel-like, (10-)15-30-flowered; scape (10-)20-50 cm long, 3-angled, covered with leaf sheaths at base; spathe deciduous. Flowers purplish pink or white; pedicels 2-3 cm long. Fruits capsule, subglobose to broadly obovoid, 3-lobed, 3-4 mm in diam.



Flowering and fruiting season
July-December.

Distribution

India, Nepal, Bhutan, China, Myanmar, N Thailand.

Bupleurum candollei Wall. ex DC. Apiaceae



Perennial herb, up to 1 m high; rhizomes thick elongate horizontal, woody at base. Leaves simple, alternate, linear-lanceolate, oblanceolate to oblong, 3-15 cm long, 0.5-1.5 cm wide, glabrous on both surfaces, base attenuate or cuneate, apex obtuse or acute, margin entire. Inflorescences terminal umbels. Flowers yellowish. Fruits dry, oblong, ca. 2.5 mm long, brown.



Flowering and fruiting season
August-February.

Distribution

Pakistan, India, Nepal, Bhutan, China, Myanmar.

Buchanania lanzan Spreng. Anacardiaceae



Tree, up to 20 m high. Leaves simple, alternate, elliptic-oblong or obovate, 15-25 cm long, 7-12 cm wide, coriaceous, villous or pubescent beneath, base acute or obtuse, apex rounded to emarginate, margin entire. Inflorescences terminal panicles, many-flowered. Flowers creamy white or greenish white; petals 5, oblong, ca. 4 mm long. Fruits drupe, obliquely ovoid or subglobose, ca. 1 cm long, greenish red.



Flowering and fruiting season
January-March; fruiting: February-April.

Distribution

S China, Myanmar, Thailand, Laos, Vietnam.

Arisaema lingyunense H. Li Araceae



Perennial tuberous herb. Leaf solitary; petiole up to 60 cm long, 3-foliate; leaflets with petiolules ca. 1.5 cm long; central leaflet 10-30 cm long, 9-22 cm wide, glabrous. Peduncle shorter than petiole. Spathe dark purple with white lines; tube dark purple with white lines; limb concurred or incurved, lateral margins elongated into broad wings, with whitish reticulate lines. Spadix unisexual.



Flowering and fruiting season
April-June; fruiting: June-August.

Distribution

W China, Myanmar.

Trevesia palmata (Roxb. ex Lindl.) Vis. Araliaceae



Small tree, up to 8 m high; stem sparse with stout spines. Leaves simple, alternate, palmately lobed, densely at the end of the twig, 30-70 cm in diam., 7-9 variously dissected lobes, finely brownish pubescent. Inflorescences axillary and terminal panicles, large, up to 60 cm long; umbels ca. 8 cm in diam. Flowers creamy yellow, ca. 1.5 cm in diam. Fruits conical, green.



Flowering and fruiting season
January-March; fruiting: March-April.

Distribution
India, China, SE Asia.

Disporum cantoniense (Lour.) Merr. Asparagaceae (Liliaceae)



Rhizomatous erect herb, up to 1.5 m high. Leaves simple, alternate, lanceolate to elliptic, 7-12 cm long, 2-5 cm wide, glabrous on both surfaces, base obtuse to rounded, apex acuminate, margin entire, veins parallel. Inflorescences umbel, 3-10-flowered. Flowers purplish pink, narrowly campanulate, 1.5-2.5 cm long. Fruits berry, globose, blue-black, 8-10 mm in diam.



Flowering and fruiting season
May-July; fruiting: June-December.

Distribution
Himalayas, China, SE Asia.

Ainsliaea latifolia (D. Don) Sch. Bip. Asteraceae



Erect perennial herb, up to 1 m high. Leaves in basal rosette; leaf blade broadly to narrowly ovate, 4-10 cm long, 2.5-8 cm wide, strigose on both surfaces, apex obtuse or acute, margin entire; petioles winged. Inflorescences spicate; capitula subsessile, 3-flowered; involucre cylindric; phyllaries 5-seriae. Flowers bisexual, pinkish white, tubular, deeply 5-lobed. Achenes cylindrical, ribbed, densely pilose; pappus brownish.



Flowering and fruiting season
November-March.

Distribution
Kashmir, India, Nepal, Bangladesh, Bhutan, Myanmar, Thailand, Vietnam, Indonesia.



Ligularia japonica (Thunb.) Less. Asteraceae

Stout perennial herb, up to 1 m high. Leaves chartaceous, cordate-orbicular, ca. 30 cm long and wide, palmately cleft to parted, scattered pubescent on upper surface, glabrous on lower surface; petioles broadly sheathing. Capitula radiate, ca. 10 cm in diam., 2-8 in corymbs; peduncle 6-20 cm long; involucre campanulate, up to 4.5 cm wide; phyllaries 9-15, in 1 series. Marginal ray flowers ca. 12, in 1 series, female, ligule 5-5.6 cm long; disc flowers bisexual, corolla 19-21 mm long, 5-lobed. Achenes cylindric, terete, ca. 10 mm long, glabrous. Pappus of capillary bristles rusty brown, 6-7.5 mm long.



Flowering and fruiting season
July-March.

Distribution
India, Myanmar, Korea, Japan.



Himalaiella natmataungensis K. Fujikawa Asteraceae

Erect perennial herb, up to 80 m high. Roots thickened and branched. Rosulate leaves petiolate up to 5 cm long; leaf blade elliptic, broadly elliptic or obovate 5-26 cm long, 2-8.7 cm wide, pinnately parted, with 12-20 pairs of lobes, glandular hairs on upper surface, dense araneous hairs and glands on lower surface, apex acute or acuminate. Cauline leaves sessile, base auriculate. Capitula nodding, (1)2-10; involucre campanulate or bowl-shaped, 3-4.5 cm in diam.; phyllaries 5 or 6-seriate, imbricate. Flowers bisexual, white; anthers dark purple. Achenes 4- or 5-angled, pericarp squamulate, apical rim with irregular toothed. Pappus uniseriate, plumose, cream or brownish.



Flowering and fruiting season
August-December; fruiting:
September-February.

Distribution
Myanmar (Endemic to Natma Taung
National Park).



Senecio scandens Buch.-Ham. ex D. Don

Asteraceae



Scandent perennial herb. Stems branched, base becoming woody. Leaves simple, alternate, ovate-lanceolate, narrowly triangular, 3-13 cm long, 2-5 cm wide, pubescent to glabrous on both surfaces, base cuneate, truncate or hastate, apex acute or acuminate; margin dentate. Capitula radiate; involucre cylindrical-campanulate; phyllaries 12 or 13, linear lanceolate. Marginal ray flowers 8-10; corolla yellow, ca. 14 mm long; disc flowers bisexual, yellow, ca. 7 mm long. Achenes cylindrical, ca. 3 mm long, pubescent. Pappus white, ca. 7 mm long.



Flowering and fruiting season

October-March.

Distribution

Asia.

Mahonia napaulensis DC.

Berberidaceae



Shrub, 2-4 m high; bark rough, corky; wood yellow; stem leafy near apex. Leaves imparipinnate, 15-30 cm long; leaflets 4-9 pairs, elliptic to ovate, thick coriaceous, apex and margin sharply spines. Inflorescences fascicles of 6-10 racemes, 10-20 cm long. Flowers yellow, 4.5-8 mm long. Fruits berry, ellipsoid to subglobose, 5-8 mm long, bluish black, glaucous, with persistent style at apex.



Flowering and fruiting season

January-April; fruiting: May-July.

Distribution

Himalayas, Myanmar.

Vernonia divergens (DC.) Edgew.

Asteraceae



Shrubby robust herb, up to 2 m high; stem well branched in upper part, pubescent. Leaves simple, alternate, elliptic or lanceolate, 5-15 cm long, 2.5-10 cm wide, base attenuate, apex acuminate or acute, margin serrate, densely tomentose on both surfaces. Inflorescences terminal panicles. Involucre cylindrical-campanulate; phyllaries 3- or 4-seriate. Florets 8-12; corolla white, pink and purple. Achenes cylindrical, conspicuously 10-ribbed, glabrous, glandular between ribs. Pappus 2-seriate, brownish.



Flowering and fruiting season

December-May.

Distribution

China, Myanmar, Thailand, Laos.

Sarcococca wallichii Stapf

Buxaceae



Shrub, 0.5-2 m high; branchlets terete, longitudinal ridged. Leaves simple, alternate, lanceolate to elliptic, (6-)9-12(-16) cm long, 3-5 cm wide, 3-veined at base, base cuneate, apex acuminate to caudate. Inflorescences short axillary racemes, ca. 1 cm long, 3-10-flowered. Flowers small, greenish white. Fruits berry-like, ovoid, 7-10 mm long, black.



Flowering and fruiting season

December-May; fruiting: February-December.

Distribution

India, Bhutan, Myanmar, N Thailand.

Codonopsis benthamii Hook.f. & Thomson Campanulaceae



Climbing or ascending herb. Leaves simple, alternate or subopposite, broadly ovate to ovate, 3-6 cm long, 1.5-3 cm wide, pubescent on both surfaces, base obtuse, apex acute, margin crenate. Flowers terminal; corolla pale green or yellowish green, tubular, 2.5-3.5 cm long; lobes triangular, apex acute.



Flowering and fruiting season
July-December.

Distribution
E Himalayas, China, Myanmar.

Leycesteria formosa Wall. Caprifoliaceae



Shrubs, up to 3 m high; branches hollow, dark green to green. Leaves simple, opposite, ovate to lanceolate, 4-15 cm long, 2-6 cm wide, sparsely pubescent to pubescent on both surfaces, base rounded to truncate, apex acuminate or attenuate-acuminate, margin entire. Inflorescences terminal or axillary, each whole composed of 2 opposite sessile flowers with subtended reddish or purplish green bracts. Flowers white to pinkish white. Fruits drupe, red turning blackish at maturity.



Flowering and fruiting season
April-August; fruiting: June-December.

Distribution
Himalayas, China, Myanmar.

Valeriana hardwickii Wall. Caprifoliaceae (Valerianaceae)



Erect rhizomatous herb, up to 1.5 m high; stem terete, hollow. Leaves imparipinnate or deeply pinnatifid, opposite, 5-15 cm long, 2-8 cm wide, with 3-5 narrowly lanceolate, to broadly ovate-cordate, coarsely serrate segments. Inflorescences terminal panicles, 10-60 cm long, often richly branched. Flowers small, numerous, white, ca. 4 mm long. Achenes light brown.



Flowering and fruiting season
July-December.

Distribution
Pakistan, India, Nepal, China, Myanmar, N Thailand, Laos, N Vietnam, Indonesia (Sumatra, Java).

Silene khasiana Rohrbach Caryophyllaceae



Perennial herb, up to 80 cm high; stem with glandular hairs. Leaves simple, opposite, ovate to lanceolate, 2.5-5 cm long, 1.5-2.5 cm wide, glabrous or sparsely hairs on both surfaces, base rounded, apex acuminate, margin ciliate. Inflorescences cymes; calyx campanulate, ca. 1 cm long, glandular hairs. Petals white or pale pink, limbs bifid. Fruits dry, ovoid.



Flowering and fruiting season
December-August; fruiting: January-September.

Distribution
India, Nepal, China (Tibet), Myanmar.

Euonymus tingens Wall. Celastraceae



Tree, 4-8(-12) m high; branches gray-brown, terete. Leaves simple, opposite, elliptic or oblong, 4-7 cm long, ca. 2.5 cm wide, base cuneate or rounded, apex obtuse or acute, margin crenate. Flowers 5-merous, ca. 1.5 cm in diam.; sepals orbicular; petals creamy white with purplish veins. Capsule globose, pink to red; seeds dark brown covered by orange aril.



Flowering and fruiting season
May-December; fruiting June-February.

Distribution
India, Nepal, Bhutan, W China, Myanmar.

Rhopalephora scaberrima (Blume) Faden Commelinaceae



Rhizomatous herb, up to 1 m high; stems ascending or erect. Leaves simple, alternate, ovate-lanceolate, 10-20 cm long, 2.5-5.5 cm wide, apex acuminate. Inflorescences terminal and axillary, corymb-like thyrses, composed of several to many elongate cymes. Flowers pale blue to purplish blue. Fruits capsule, subglobose, ca. 4 mm in diam., sticky with densely covered glandular hairs.



Flowering and fruiting season
September-December.

Distribution
India, Sri Lanka, Nepal, Bhutan, China, SE Asia.

Combretum latifolium Blume Combretaceae



Woody climber. Leaves simple, opposite, broadly elliptic to ovate, 10-15 cm long, 5-10 cm wide, glabrous with pale yellowish scales on lower surfaces, base obtuse to cuneate, apex acute, margin entire. Inflorescences axillary, densely flowered spikes, 6-10 cm long. Flowers greenish white to yellowish green; petals 4; stamens 8; anthers orange. Fruits brownish, ellipsoidal, 2.5-4 cm long, puberulous, 4-winged.



Flowering and fruiting season
December-April.

Distribution
India, Sri Lanka, Bangladesh, Nepal, Bhutan, China, SE Asia.

Merremia vitifolia (Burm.f.) Hallier f. Convolvulaceae



Creeper; all parts hirsute; stems purplish. Leaves simple, alternate, palmately (3-)5-7-angled or lobed, 5-18 cm long, 4-15.5 cm wide, base cordate, lobes broadly triangular, apex acuminate to obtuse. Inflorescences cymose, 1- to several-flowered. Flowers yellow, funnellform, 2.5-5.5 cm long. Fruits capsule, subglobose, ca. 12 mm in diam., 4-valved, straw-coloured.



Flowering and fruiting season
February-April.

Distribution
India, Nepal, Bhutan, Bangladesh, Sri Lanka, China, Myanmar, Thailand, Laos, Vietnam, Malaysia, Indonesia.

Cornus capitata Wall. Cornaceae

Evergreen tree, up to 12 m high. Leaves simple, opposite, elliptic to oblong, 5-14 cm long, 2-6 cm wide, leathery, veins 3 or 4, base cuneate, apex acuminate, margin entire. Inflorescences terminal, cymes, globose, ca. 1 cm in diam.; bracts white, obovate, 3-6 cm long, 1.5-4 cm wide. Fruits subglobose, 2-3 cm in diam., turn to reddish at maturity.



Flowering and fruiting season

March-April; fruiting: June-November.

Distribution

India, Nepal, Bhutan, China, Myanmar.



Rhodiola ovatisepala (Raym.-Hamet) S.H. Fu Crassulaceae

Perennial herb, 5-20 cm high. Caudex prostrate with scale-like leaves. Flowering stems simple, ascending with leaves grouped near apex of stem. Leaves simple, alternate, oblong, elliptic, oblanceolate to obovate, 3-6 cm long, 1.5-4 cm wide, base attenuate or decurrent, apex obtuse, margin 3- or 4-lobed. Inflorescences compact, dichasia, 2-4 cm in diam. Flowers white or greenish white, 1-1.5 cm in diam.; stamens 10; anthers reddish.



Flowering and fruiting season

July-September; fruiting: August-December.

Distribution

NE India, Nepal, Bhutan, SW China, Myanmar.



Drosera peltata Thunb. Droseraceae

Perennial herb, up to 30 cm high. Leaves simple, alternate, peltate, 3-6 mm in diam., with tentacles, viscid, which trap and digest small insects. Inflorescences cymose. Flowers white; petals 5, obovate, 5-6 mm long. Fruits capsule, 3-valved, oblong spherical, ca. 3 mm in diam.

Flowering and fruiting season

June-October.

Distribution

Sri Lanka, China, Japan, SE Asia, Australia.



Agapetes moorei Hemsl. Ericaceae

Epiphytic shrub, up to 1 m high; base of stem swollen. Leaves pseudowhorl, oblanceolate-oblong, 6-12 cm long, 2.5-4.5 cm wide, base obtuse to subcordate, apex acuminate, margin entire and revolute. Inflorescences short racemes, 4-8-flowered. Flowers orangish red; corolla tubular, slightly curved, 3-4 cm long. Fruits berry, subglobose ca. 1 cm across.



Diospyros glandulosa Lace Ebenaceae

Deciduous tree, up to 7 m high. Leaves, simple, alternate, oblong to elliptic, 8-20 cm long, 3-8 cm wide, pubescent on both surfaces, base acute, apex acuminate, margin entire; young leaves tomentose on both surfaces. Male flowers cymose, 4-merous, urceolate, pink, 6-8 mm long. Female flower solitary, as in male flowers, but larger. Fruits berry, yellow to orange, edible, globose with brownish tomentose, 2.5-4.5 cm long and wide, depressed at both ends with persistent calyx.



Flowering and fruiting season

March-May; fruiting: September-December.

Distribution

India, Myanmar, Thailand, Laos.



Flowering and fruiting season

February-April; fruiting: May-June.

Distribution

Myanmar.

Craibiodendron stellatum (Pierre) W.W. Sm.

Ericaceae

Small tree, 2-6 m high. Leaves simple, alternate, oblong-lanceolate to elliptic, 6-10 cm long, 2-5 cm wide, coriaceous, glabrous on both surfaces, base broadly cuneate to rounded, apex obtuse, rounded to emarginate, margin entire. Inflorescences terminal panicles, many-flowered, 8-15 cm long. Flowers creamy white, urceolate-campanulate to subcylindrical, 4-4.5 mm long. Fruits capsule, subglobose to globose, 10-12 mm in diam.



Flowering and fruiting season

June-September; fruiting: September-March.

Distribution

S China (Yunnan), Myanmar, Thailand, Laos, Cambodia, Vietnam.



Lyonia ovalifolia (Wall.) Drude

Ericaceae

Small tree, 4-8 m high. Leaves simple, alternate, lanceolate, elliptic to ovate, (5-)6-10(-15) cm long, (3-)4-5.5(-7) cm wide, coriaceous, sparsely puberulous on both surfaces, base rounded to subcordate, apex acute to acuminate, margin entire. Inflorescences axillary racemes, many-flowered, 8-15(-18) cm long. Flowers white, tubular-cylindrical, 8-12 mm long. Fruits capsule, globose, 4-5 mm in diam.



Flowering and fruiting season

May-December; fruiting: August-June.

Distribution

E Himalayas, China, Myanmar, Thailand, Laos, Cambodia, Vietnam, Malaysia, Japan.



Rhododendron arboreum Sm.

Ericaceae

Tree, 2-10 m high. Leaves simple, alternate, oblong, lanceolate or oblanceolate, 4-13 cm long, 1.8-5 cm wide, leathery, glabrous on upper surface, densely white or brownish tomentose on lower surface, base cuneate to rounded, apex acute, margin revolute. Inflorescences terminal, dense umbels, 6-10 cm in diam. Flowers campanulate, red or rarely pink, 3-5 cm in diam.; corolla 5-lobed, 3-4.5 cm long, apex emarginate; stamens 10, unequal. Fruits capsule, cylindric, ca. 1.5 cm long.



Flowering and fruiting season

December-March; fruiting: May-September.

Distribution

Himalayas, Sri Lanka, China, Myanmar, N Thailand, Vietnam.

Rhododendron burmanicum Hutch.
Ericaceae



Shrub, 1-2(-4) m high. Leaves simple, alternate, oblong, elliptic to obovate, 4-9 cm long, 2-4.5 cm wide, leathery, glabrous with brown appressed scales on both surfaces, base cuneate, apex acute, margin revolute. Inflorescences terminal, umbels. Flowers campanulate, yellowish white or pale yellow; corolla 5-lobed, 2.5-5 cm long, apex emarginate; stamens 10, unequal. Fruits capsule, cylindric, ca. 1.2 cm long.



Flowering and fruiting season
December-June.

Distribution
Myanmar.



Bauhinia variegata L.
Fabaceae



Deciduous tree, up to 15 m high. Leaves simple, alternate, broadly ovate to subrotundate, 6-16 cm in diam., 11-13-nerved, bifid to 1/4-1/3 with broad sinus, base cordate, apex of lobes rounded. Inflorescences short lateral racemes. Flowers white or purple with reddish purple patch; petals 5, obovate, unequal, 4-5.5 cm long, short-clawed. Fruits pod, obliquely striate, 20-30 cm long, 2-2.5 cm wide.



Flowering and fruiting season
December-March; fruiting: February-April.

Distribution
India, S China, Myanmar, Thailand, Laos, N Vietnam.



Butea monosperma (Lam.) Taub. Fabaceae

Deciduous tree, 8-15 m high. Leaves trifoliate compound. Leaflets oblique to orbicular, 8-15 cm long and wide, base oblique, apex rounded. Inflorescences axillary and terminal panicles, up to 20 cm long. Flowers orange or rarely yellow, pea-shaped, 6-7 cm long. Fruits pod, flat, oblong, brown, up to 14 cm long, slightly curved upward, 1-seeded.



Flowering and fruiting season
January-March; fruiting: June-July.

Distribution
India, China, SE Asia.



Indigofera dosua Buch.-Ham. ex D. Don Fabaceae

Shrub, up to 1(-2) m high; stems with dense brownish hairs. Leaves imparipinnate, alternate, 4-15 cm long. Leaflets elliptic to oblong, 1.2-2 cm long, 3-6 mm wide, base cuneate to rounded, apex obtuse to rounded and mucronate, margin entire. Inflorescences axillary and terminal racemes. Flowers pink, pinkish purple or purple, pea-shaped, ca. 7-12 mm long. Fruits pod, linear, cylindric, 2.5-3.5 cm long with white or brownish hairs; seeds cubic to cylindrical.

Flowering and fruiting season
May-September; fruiting: August-December.

Distribution
India, Nepal, Bhutan, SW China, Myanmar, Thailand, Laos, Vietnam, Indonesia.



Piptanthus nepalensis (Hook.) D. Don Fabaceae

Erect shrub, up to 2 m high. Leaves trifoliate compound, alternate, densely silky hairs on lower surface and margin. Leaflets oblong to elliptic, 4-15 cm long, 1.5-5 cm wide, base cuneate, apex acuminate, margin entire. Inflorescences terminal racemes; bracts ovate to obovate with dense silky hairs. Flowers yellow to bright yellow, pea-shaped, 2.5-3.5 cm long. Fruits pod, broadly linear, flat, 7-15 cm long, apex sharply pointed; seeds pale brown, reniform, compressed.

Flowering and fruiting season
December-June; fruiting: May-December.

Distribution
India, Nepal, Bhutan, China, Myanmar.



Quercus semecarpifolia Sm. Fagaceae



Tree, up to 15(-20) m high, evergreen or deciduous. Leaves simple, alternate, elliptic, oblong to oblanceolate, 4.5-9 cm long, 2.5-6 cm wide, stellate hairs on both surfaces, base cordate, apex obtuse, margin with sharp teeth or entire. Inflorescences male catkins to 7 cm long; female to 5 cm long. Cupules bowl shaped; scales with dense hairs, triangular. Acorns dark purple to black at maturity, globose, 2-3 cm in diam., apex pointed.



Flowering and fruiting season

January-June; fruiting: June- maturing in two years.

Distribution

Afganistan, Pakistan, India, Nepal, SW China, Myanmar, N Thailand.

Lithocarpus xylocarpus (Kurz) Markgr. Fagaceae



Tree, up to 20 m high. Leaves simple, alternate, narrowly oblong, lanceolate or ovate, 8-15 cm long, 2.5-7 cm wide, base cuneate, apex acute to acuminate, margin entire. Inflorescences erect, male catkins to 12 cm long; female to 7 cm long. Cupules subglobose almost entirely enclosing acorns; bracts linear, up to 1.5 cm long. Acorns brown at maturity, apex pointed.



Flowering and fruiting season

February-June; fruiting: March- maturing in two years.

Distribution

NE India, SW China, Myanmar, N Thailand, N Laos, Vietnam.



Gentiana sino-ornata Balf.f. Gentianaceae



Perennial herb, up to 10 cm high; roots yellow; stems ascending. Leaves simple, opposite, linear to narrowly lanceolate, 3-8 cm long, 4-10 mm wide, glabrous on both surfaces, base connate, apex acute or obtuse, margin entire. Flowers terminal; calyx tube obconic, lobes narrowly triangular, apex acuminate, unequal; corolla sky blue, yellowish green at base, 1-2 cm in diam., tube obconic, lobes ovate, apex acute.



Flowering and fruiting season

November-March.

Distribution

SW China, Myanmar.

Halenia elliptica D. Don

Gentianaceae



Annual herb, up to 80 cm high; stems erect, subquadrangular. Leaves simple, opposite, elliptic, oblong or ovate, 2-7 cm long, 0.5-2.5 cm wide, 3-veined at base, glabrous on both surfaces, base rounded to truncate, apex acute or sometimes obtuse, margin entire. Inflorescences loosely racemose. Flowers blue, purplish blue or blue with white at upper part, campanulate, ca. 1.5 cm in diam.; lobes elliptic to ovate, ca. 1 cm long, apex mucronate; spurs 3-10 mm long.



Flowering and fruiting season
May-December.

Distribution
Kyrgyzstan, India, Nepal, Bhutan, China, Myanmar, N Thailand.

Swertia racemosa (Wall. ex Griseb.) C.B. Clarke

Gentianaceae



Annual herb, up to 60 cm high; roots yellow; stems erect, subquadrangular. Leaves simple, opposite, lanceolate, 1.5-5 cm long, 0.5-1.5 cm wide, subglabrous on both surfaces, base auriculate, apex acute, margin ciliate. Inflorescences panicles of cymes. Flowers 5-merous. Calyx tube campanulate, densely ciliate outside; lobes triangular, apex acute, unequal. Corolla blue-purple to pinkish purple, 1-2 cm in diam.; tube campanulate; lobes ovate, apex acute. Nectaries 1 per base of corolla, circular; outer rim with fimbriate. Filaments white at base, bluish at upper part, widening towards base; anthers blue.



Flowering and fruiting season
October-January.

Distribution
India, Nepal, Bhutan, SW China, Myanmar.

Geranium refractum Edgew. & Hook.f.

Geraniaceae



Perennial herb, up to 70 cm high with thickened roots. Leaves simple, opposite, palmately divided, 3-6 cm long, 3-9 cm wide, pilose on both surfaces; segments rhombic, dissected, apex acute. Inflorescences generally with 2-flowers, cymules. Bracts lanceolate, 1.2-1.5 cm long, lanceolate, apex mucronate. Flowers pale pink, pink or purple, ca. 2.5 cm in diam.; each petals reflexed, apex rounded or obtuse. Staminal filaments reddish pink; anthers dark purple to blackish. Fruits ca. 2.5 cm long; seeds blackish.



Flowering and fruiting season
August-December.

Distribution
India, Nepal, Bhutan, SW China, Myanmar.

Iris collettii Hook.f.

Iridaceae



Rhizomatous herb, with tuberous roots. Leaves, simple, distichous, 2-ranked, sword-shaped, 10-30 cm long, 3-7 cm wide. Inflorescences 1-3-flowered on separate shoot. Flowers bluish violet, 2-5 cm in diam., with orange-yellow crest on the outer perianth. Fruits capsule, ovoid, 1.5-2.5 cm long, terminated by a short beak.



Flowering and fruiting season
May-July; fruiting June-August.

Distribution
NE India, China, Myanmar, N Thailand, Vietnam.

Engelhardia spicata Lesch. ex Blume Juglandaceae

Monoecious tree, (4-)10-20(-30) m high, deciduous. Leaves paripinnate; rachis 15-30(-35) cm long; leaflets (4-)8-14, lanceolate, elliptic to narrowly ovate, 7-17 cm long, (2-)4-6(-8) cm wide, usually with tuft of hairs in leaf axils and grayish brown scales on the lower surface. Inflorescences catkins, lateral on old wood or sometimes at the base of new growth. Fruits nut, ovoid to subglobose, 3-5 mm in diam., with 3-winged, 2-4 cm long, the median one longest.



Flowering and fruiting season
November-May.

Distribution
Widely distributed in E Himalayas, S China, SE Asia.



Callicarpa arborea Roxb. Lamiaceae (Verbenaceae)

Tree, 4-10(-15) m high; branchlets densely tomentose with stellate hairs. Leaves simple, opposite, elliptic to ovate, 15-30 cm long, 8-15 cm wide, densely yellowish brown stellate tomentose with yellow gland dots on lower surface. Inflorescences axillary cymose. Flowers small, numerous, purple, 3-4 mm long, fragrant. Fruits drupaceous, globose, 2-3 mm in diam., black or purple.



Flowering and fruiting season
March-July; fruiting: July-December.

Distribution
India, Nepal, Bhutan, Bangladesh, China, SE Asia.

Clerodendrum serratum (L.) Moon Lamiaceae (Verbenaceae)



Shrub or undershrub, (0.6-)1-4 m high; branchlets subquadrangular. Leaves simple, opposite or in whorl of 3, sessile or subsessile, lanceolate, oblanceolate to narrowly obovate, 8-30 cm long, 3.5-10 cm wide, sparsely puberulous to subglabrous, base attenuate, apex acuminate, margin coarsely serrate. Inflorescences terminal thyrsoïd, up to 40 cm long; bracts ovate or lanceolate. Flowers purplish blue, pale pink to pale green. Fruits drupe, subglobose, 2-4-lobed, 6-10 mm in diam., black, subtended by persistent calyx.



Flowering and fruiting season

May-December.

Distribution

E Africa, S and SE Asia.

Colquhounia elegans Wall. ex Benth. Lamiaceae



Scrambling shrub, up to 1.8 m high. Leaves simple, opposite, lanceolate, elliptic to narrowly ovate, 4-10 cm long, 2-6.5 cm wide, bullate on upper surface, hirsute on both surfaces, base obtuse, rounded to broadly cuneate, apex shortly acuminate, margin crenate-dentate. Inflorescences axillary and terminal, capitate cymes. Flowers orange-red, 2.2-3 cm long. Fruits of 4 nutlets, ca. 3 mm long.



Flowering and fruiting season

December-March.

Distribution

S China, Myanmar, Thailand, Laos, Cambodia, Vietnam.

Congea tomentosa Roxb. Lamiaceae (Verbenaceae)



Woody climber; branchlets densely yellowish brown tomentose. Leaves simple, opposite, elliptic to ovate, 6-16 cm long, 3-9 cm wide, pilose on both surfaces, base broadly cuneate, rounded to subcordate, apex acute to acuminate, margin entire; petioles 5-10 mm long, pilose. Inflorescences capitate, (5-)7(-9)-flowered; involucre bracts pink to purple. Calyx pink to purple, funnellform, 6-8 mm long; corolla white. Fruits drupe enclosed in an enlarged calyx.



Flowering and fruiting season

January-April; fruiting: April-June.

Distribution

India, Bangladesh, S China, SE Asia.

Isodon coetsa (Buch.-Ham. ex D. Don) Kudo Lamiaceae



Erect or ascending perennial herb or subshrub, up to 2(-3) m high; stem quadrangular. Leaves simple, opposite, elliptic to ovate, 3-9.5 cm long, 1.5-5 cm wide, pubescent on both surfaces, base obtuse to cuneate, attenuate onto the petiole, apex acute to acuminate, margin serrate. Inflorescences terminal and axillary panicles. Flowers purple to purplish blue or white, 5-8 mm long. Fruits schizocarp of 4 nutlets, ca. 1 mm long, brown, smooth or minutely tuberculate.



Flowering and fruiting season

November-March.

Distribution

E Himalayas, India, Sri Lanka, China, Myanmar, N Thailand, Laos, Vietnam.

Vitex burmensis Moldenke Lamiaceae (Verbenaceae)



Tree, 4-12 m high; branchlets quadrangular, puberulous, with yellow glandular. Leaves palmately compound, 3-5-foliolate; leaflets lanceolate to elliptic, 10-15 cm long, 3-6 cm wide, puberulous, yellow glandular on both surfaces, base cuneate, apex acuminate, margin entire. Inflorescences axillary panicles, 6-16 cm long. Flowers white with yellow tinge and purplish at base of lip, 8-9 mm long. Fruits drupaceous, subglobose, 8-10 mm in diam., black, glabrous, subtended by enlarged calyx.



Flowering and fruiting season

May-September.

Distribution

S China, Myanmar, N Thailand.

Leucosceptrum canum Sm. Lamiaceae



Shrub, up to 6 m high; young branches with densely grayish tomentose. Leaves simple, opposite, elliptic to lanceolate, 10-25 cm long, 3.5-7 cm wide, subglabrous on upper surface, densely grayish tomentose on lower surface, base cuneate, apex acuminate, margin serrate. Inflorescences terminal, spikes, 8-12 cm long, verticillasters many-flowered. Flowers creamy white, 7-10 mm long; calyx ca. 7 mm long with dense stellate tomentose; stamens and pistil up to 2.5 cm long.



Flowering and fruiting season

February-March.

Distribution

India, Nepal, Bhutan, China, Myanmar, N Thailand, Laos, Vietnam.

Litsea cubeba (Lour.) Pers. Lauraceae



Tree, up to 10 m high, all parts with aromatic oil-glands. Leaves simple, alternate, lanceolate, oblong or elliptic, 4-12 cm long, 1.5-4.5 cm wide, glabrous on both surfaces or sometimes pubescent on lower surface, base cuneate or acute, apex acuminate, margin entire. Inflorescences clustered umbels, 4-6-flowered. Flowers creamy white or pale yellow, ca. 7 mm in diam. Fruits subglobose or globose, ca. 5 mm in diam., black at maturity, edible.



Flowering and fruiting season

February-April; fruiting: June-September.

Distribution

S and SE Asia.

Strychnos nux-blanda A.W. Hill Loganiaceae



Tree, up to 8 m high. Leaves simple, opposite, elliptic, broadly ovate to orbicular, 5-16 cm long, 5-13 cm wide, base acute, rounded to subcordate, apex blunt to acuminate, margin entire, 3-5-nerved from base. Inflorescences terminal or on ends of short side branches. Flowers green, pale yellow to white, tubular, 8-12 mm long. Fruits globose, orange at maturity, thick-walled, 5-8 cm in diam.



Flowering and fruiting season

April-June; fruiting: December-May.

Distribution

India, Myanmar, Thailand, Laos, Cambodia, Vietnam.

Duabanga grandiflora (Roxb. ex DC.) Walp. Lythraceae (Sonneratiaceae)



Tree, 10-35 m high; young branchlets quadrangular. Leaves simple, opposite, oblong to ovate, 10-30 cm long, 4-12 cm wide, base broadly rounded to cordate, apex acuminate or acute, margin entire; veins prominent below. Inflorescences terminal corymb. Flowers nocturnal, white, 4-7 cm in diam. Fruits capsule, ovoid-globose, 3-4 cm wide, green turning brown, with persistent calyx-lobes.



Flowering and fruiting season

December-March; fruiting: April-May.

Distribution

India, S China, Myanmar, Thailand, Laos, Vietnam, Cambodia, Malaysia.

Lagerstroemia macrocarpa Wall. ex Kurz Lythraceae



Small tree or tree, up to 7 m high. Leaves simple, alternate, broadly oblong to elliptic 10-24 cm long, 4-12 cm wide, glabrous on both surfaces, base broadly rounded, apex rounded, margin entire. Inflorescences terminal panicles, ca. 10 cm long. Floral tube 6-merous, broad ribs. Flowers pale pink to purplish pink, 4-7 cm in diam. Fruits capsule, oblong, 2.5-4.5 cm long, 3-4 cm wide.



Flowering and fruiting season

May-June; fruiting: July-December.

Distribution

India, Myanmar, Thailand, Laos, Vietnam, Cambodia, Malaysia.



Woodfordia fruticosa (L.) Kurz Lythraceae

Shrub, 1-4 m high, ascending. Leaves simple, opposite, lanceolate, 4-14 cm long, 1-4 cm wide, leathery, subglabrous on upper surface, sparsely pubescent or tomentose with orange or blackish glandular on lower surface, base rounded to subcordate, apex acuminate, margin entire. Inflorescences axillary compacted corymbose. Flowers orange, reddish orange or deep red; tube 9-15 mm long; lobes 6; stamens 12.



Flowering season
February-March.

Distribution
Himalayas, Myanmar, Thailand, Laos, Indonesia.

Colona floribunda (Kurz) Craib Malvaceae (Tiliaceae)

Tree, up to 15 m high. Leaves simple, alternate, obovate to rounded, 8-40 cm long, 7-25 cm wide, scabrous, base rounded or truncate, apex rounded or shortly acute, margin serrate, 5(-7)-nerved from base. Inflorescences terminal and axillary cymes, 10-20 cm long. Flowers yellow with red to brownish red spots, ca. 1 cm across. Fruits capsule, reddish brown, with 3-4 longitudinal wings.



Flowering and fruiting season
June-September; fruiting: October-February.

Distribution
India, Nepal, S China, Myanmar, Thailand, Laos, Vietnam.



Grewia eriocarpa Juss. Malvaceae (Tiliaceae)

Tree, up to 12 m high. Leaves simple, alternate, ovate, 5-15 cm long, 3-8 cm wide, pubescent, base obtuse to rounded with unequal-sided, apex acute to acuminate, margin serrate to serrulate, 3-5-nerved from base. Inflorescences axillary cymes, 1.5-3 cm long. Flowers yellow; petals 5, lanceolate, 2.5-5 mm long. Fruits rounded, 2-4-lobed, black.



Flowering and fruiting season
February-July.

Distribution
India, Nepal, Sri Lanka, S China, SE Asia.



Grewia laevigata Vahl Malvaceae (Tiliaceae)

Shrub to small tree, up to 10 m high. Leaves simple, alternate, lanceolate to elliptic, 7-20 cm long, 2.5-6 cm wide, glabrous to glabrescent on upper surface, sparsely pilose on lower surface, base broadly acute with equal or slightly unequal-sided, apex acuminate to cuspidate, margin serrate to serrulate, 3-nerved from base. Inflorescences axillary cymes, 2-6 cm long. Flowers white or yellow; petals 5, oblong, 3-7 mm long. Fruits rounded, 2-4-lobed, black.



Flowering and fruiting season
September-February.

Distribution
India, Nepal, Myanmar, Thailand, Laos, Vietnam, Malaysia, Indonesia, Philippines, Australia, Africa.



Kydia calycina Roxb. Malvaceae

Tree, up to 10(-15) m high; young stems and branches densely pubescent with minute grayish brown stellate hairs. Leaves simple, alternate, ovate to suborbicular, 4-17 cm long and wide, hispid by minutely stellate on both surfaces, 5-9-nerved from base. Inflorescences terminal and axillary panicles. Flowers pink or red, 7-11 mm long. Fruits capsule, subglobose, 5-6 mm long and wide.



Flowering and fruiting season
July-November; fruiting: November-February.

Distribution
India, Pakistan, China, Myanmar, Thailand, Laos, Vietnam.



***Pterospermum semisagittatum* Buch.-Ham. ex Roxb.**
Malvaceae (Sterculiaceae)



Tree, 5-15 m high. Leaves simple, alternate, oblong to lanceolate, 16-25 cm long, 4-7 cm wide, rusty hairy, base strongly sagittate; apex acute to cuspidate. Flower solitary, white, 4.5-8 cm long, surrounded with 3 lacinate long bracts. Fruits capsule, cylindrical or elliptical, 6-8 cm long, densely hairy.



Flowering and fruiting season

April-June; fruiting: May-March.

Distribution

India, Sri Lanka, Myanmar, Thailand, Laos, Cambodia.



***Thespesia lampas* (Cav.) Dalzell & A. Gibson**
Malvaceae



Shrub, 0.8-3 m high. Leaves simple, alternate, broadly ovate to 3-lobed, 9-18 cm long, 8-20 cm wide, pubescent on both surfaces, base broadly cordate, apex acute to acuminate. Flower solitary from upper leaf axils or in cymose, 6-10 cm across, yellow with dark red at throat. Fruits capsule, broadly ovoid, 2-3.5 cm long.



Flowering and fruiting season

September-March.

Distribution

E Africa, Asia.

***Paris polyphylla* Sm.**
Melanthiaceae (Liliaceae)



Rhizomatous erect herb, 1-1.5 m high. Leaves simple, 6-13, in a pseudowhorl at stem apex, lanceolate to oblanceolate, 6-15 cm long, 3-6 cm wide, base cuneate, apex acuminate to aristate. Flower solitary, terminal, green, 4-10 cm long. Fruits subglobose, 3-4 cm in diam., irregularly dehiscent; seeds enveloped by orange aril.



Flowering and fruiting season

April-December.

Distribution

India, Nepal, Bhutan, China, Myanmar, N Thailand, Vietnam.

***Myrica esculenta* Buch.-Ham. ex D. Don**
Myricaceae



Tree, up to 20 m high. Leaves simple, alternate, oblanceolate, 5-17 cm long, 2-5 cm wide, yellowish glands on lower surface, base cuneate, apex acute or rounded. Inflorescences dense catkin. Flowers small and inconspicuous, subtended by a bract. Fruits drupe, ellipsoid-subglobose, ca. 1 cm in diam., reddish black.



Flowering and fruiting season

September-April; fruiting: January-April.

Distribution

India, Nepal, SE Asia.

Coelogyne corymbosa Lindl.

Orchidaceae



Epiphytic orchid, sympodial, 12-24 cm high; pseudobulbs ovoid. Leaves 2, on top of pseudobulb, elliptic-lanceolate, 10-20 cm long, 2-3.5 cm wide, apex acute. Inflorescences terminal on the developing shoot, 2-3-flowered. Flowers white, fragrant, 4-7 cm across; lip with 4 yellow eyes bordered with orange-red, disk with 3 crenate keels.



Flowering season
March-July.

Distribution
India, SW China, Myanmar.



Dendrobium longicornu Lindl.

Orchidaceae



Epiphytic orchid, up to 40 cm high; new sheaths black-hairy. Leaves narrowly lanceolate, 4-7 cm long, 0.5-1.5 cm wide, apex unequally bilobed. Inflorescences 1-3-flowered, subterminal. Flowers white, 3-4 cm across, fragrant; lateral sepals forming a long spur-like mentum, 1.5-1.8 cm long; lip 3-lobed, veined with yellow or red-orange, flushed with yellow.



Flowering season
November-December.

Distribution
NE India, Nepal, Bhutan, S China, Myanmar, N Vietnam.

Renanthera imschootiana Rolfe

Orchidaceae



Epiphytic orchid, monopodial, up to 1 m high. Leaves distichous along the stem, oblong, 6-8 cm long, 1.3-2.5 cm wide, apex bilobed, rounded. Inflorescences lateral, up to 1 m long, often branched, many-flowered. Flowers bright red, 3-4.5 cm across; dorsal sepal and petals yellow to red and usually densely red-spotted; lip red with white marking; spur saccate.



Flowering season
April-June.

Distribution
NE India, SW China, Myanmar, Vietnam.



Thunia alba (Lindl.) Rchb.f. Orchidaceae

Epiphytic orchid, up to 1 m high; stem erect, terete. Leaves narrowly elliptic to oblong-lanceolate, 10-20 cm long, 2-3 cm wide, apex acuminate. Inflorescences pendent, 2-7-flowered; floral bracts oblong, boat-shaped. Flowers white, 4-6 cm long; lip unlobed, with a yellow patch, keels orange-yellow; spurred at base, 4.5-5 cm long.



Flowering season
May-August.

Distribution
NE India, Nepal, S China, Myanmar, Thailand, Malaysia.



Anneslea fragrans Wall. Pentaphylacaceae (Theaceae)

Tree, 5-15 m high. Leaves simple, alternate, lanceolate, elliptic to ovate, 7-15 cm long, 4-7 cm wide, coriaceous, glabrous, with black dots throughout lower surface, base cuneate, apex acute, rarely rounded or obtuse, margin entire. Inflorescences terminal, umbel-like. Flowers yellowish white, slightly fragrant. Fruits pome-like, globular to ovoid, ca. 2 cm in diam.



Flowering and fruiting season
November-March; fruiting: December-May.

Distribution
S China, Myanmar, Thailand, Laos, Vietnam, Cambodia, Malaysia.



Phyllanthus emblica L. Phyllanthaceae (Euphorbiaceae)

Tree or shrub, 3-10 m high. Leaves simple, distichous, linear-oblong to oblong, 5-12 mm long, 1.5-2.5 mm wide, glabrous on both surfaces, base rounded or cordate, apex obtuse or acute with micron, margin revolute. Male flowers on short pedicels; female flowers few, larger than male flowers. Flowers creamy white. Fruits globose, 1.2-2 cm in diam., green, edible.



Flowering and fruiting season
February-April; fruiting: August-March.

Distribution
India, Sri Lanka, Nepal, Bhutan, SE Asia.



Peperomia tetraphylla (G. Forst.) Hook. & Arn. Piperaceae



Succulent, perennial herb, 10-30 cm high. Leaves in whorls of 4, elliptic, ovate to suborbicular, 8-13 mm long, 5-9 mm wide, base cuneate to obtuse, apex obtuse to rounded. Inflorescences terminal or axillary spike, 2-6 cm long. Flowers minute. Fruits ovoid, ca. 1 mm long.



Flowering and fruiting season
September-March.

Distribution
India, Sri Lanka, Nepal, Bhutan, China, SE Asia, Africa, Central and S America, Oceania.

Polygala arillata Buch.-Ham. ex D. Don Polygalaceae



Shrub, 1-5 m high. Leaves simple, alternate, elliptic to ovate or slightly obovate, 5-12 cm long, 1.5-6 cm wide, base cuneate, apex acuminate. Inflorescences terminal or axillary raceme, many flowered. Flowers yellow to yellowish orange, 10-15 mm long. Fruits capsule, 2-lobed, with prominent concentric ridges, reddish or dark purple; seeds black, covered with orange aril.



Flowering and fruiting season
May-February.

Distribution
India, Sri Lanka, Nepal, China, Myanmar, Thailand, Laos, Cambodia, Vietnam.

Bistorta yunnanensis H. Gross Polygonaceae



Perennial herb, up to 60 cm high; rhizome developed. Basal leaves petiolate, petiole up to 10 cm long; leaf blade oblong or lanceolate, 5-12 cm long, 1.5-5 cm wide, base cuneate, apex acute, margin revolute. Inflorescences terminal spicate. Flowers pink, 2.5-5 cm long. Achenes, trigonous, oblong or ovoid, 4-5 mm long, black.



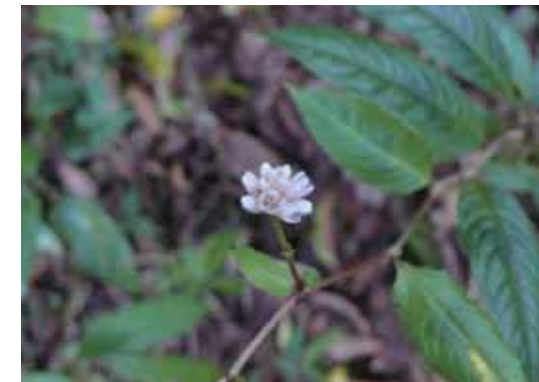
Flowering and fruiting season
May-December.

Distribution
India, Sri Lanka, Nepal, Bhutan, China, Japan, SE Asia.

Persicaria chinensis (L.) H. Gross Polygonaceae



Perennial herb, up to 1 m high. Leaves simple, alternate, elliptic, oblong-lanceolate to ovate, 5-15 cm long, 1.5-8 cm wide, base cuneate or rounded to subtruncate, apex acuminate; stipules connate, sheathing the stem. Inflorescences terminal head-like panicles. Flowers white tinged pink, 3-5 mm long. Achenes, trigonous, oblong, 4-5 mm long, black.



Flowering and fruiting season
July-March.

Distribution
India, Sri Lanka, Nepal, Bhutan, China, Japan, SE Asia.

Primula denticulata Sm. Primulaceae

Perennial herb, up to 30 cm high with tuberous roots. Leaves forming a rosette, petiolate; leaf blade oblong to oblanceolate, base attenuate, apex rounded to obtuse, margin denticulate. Inflorescences terminal capitate, 2.5-3.5 cm in diam. Flowers pinkish purple to purple, 1-2.5 cm long. Fruits capsule.



Flowering and fruiting season
January-May.

Distribution
Afghanistan, Pakistan, India, Nepal, Bhutan, SW China, Myanmar.



Anemone obtusiloba D. Don Ranunculaceae

Perennial herb, up to 20 cm high. Basal leaves petiolate; leaf blade reniform to broadly ovate, 1.5-6 cm long, 2-7 cm wide, 3-divided or -parted, densely to sparsely villous on both surfaces, base cordate, margine lobulate-dentate; segments rhombic, apex acute or obtuse. Inflorescences cyme, 1-2-flowered. Flowers white or blue, purplish blue inside, purplish outside, 1.5-2.5 cm in diam. Achenes elliptic, densely hairs with hooked style.



Flowering and fruiting season
December-July.

Distribution
Afghanistan, Pakistan, India, Nepal, Bhutan, Mongolia, SW China, Myanmar.



Helicia nilagirica Bedd. Proteaceae

Tree, up to 10 m high. Leaves simple, alternate, chartaceous to subcoriaceous, lanceolate, elliptic to ovate, 8-14(-19) cm long, 4-7(-9) cm wide, glabrous, base cuneate, apex acute to acuminate, margin coarsely serrate. Inflorescences axillary or cauliflorous racemes, 7-20 cm long. Flowers in pairs, white or yellowish, 1.2-1.5 cm long. Fruits subglobose, 2-3 cm long and wide.



Flowering and fruiting season
May-June; fruiting: May-November and persistent almost throughout the year.

Distribution
India, S China, Myanmar, Thailand, Laos, Cambodia, Vietnam.



Clematis buchananiana DC. Ranunculaceae

Climber; stems striate, tomentose. Leaves pinnately compound, 5-foliolate; leaflets broadly elliptic to broadly ovate, (5-)8-13 cm long, (3-)6-11 cm wide, tomentose. Inflorescences axillary and terminal, paniculate, up to 20 cm long. Flowers creamy yellow, 1-2 cm across. Achenes ovoid, 3-4 mm long, tomentose with 3-4 cm long silky white tails.



Flowering and fruiting season
November-February; fruiting: January-March.

Distribution
E Himalayas, S China, Myanmar, N Thailand, Vietnam.



Clematis montana Buch.-Ham. ex DC. Ranunculaceae



Woody climber; branches terete. Leaves 3-foliolate; leaflets ovate, elliptic or rhombic, 1.8-7 cm long, 1-5 cm wide, sparsely pubescent on both surfaces, base broadly cuneate to rounded, apex acuminate, margin coarsely dentate or rarely entire. Inflorescences axillary and terminal, paniculate. Flowers white, 1.3-6.5 cm across. Achenes ovoid to rhombic, 3-5 mm long, glabrous with 2-6 cm long silky white tails.



Flowering and fruiting season
April-September; fruiting: July-September.

Distribution
Himalayas, China, Myanmar.

Thalictrum foliolosum DC. Ranunculaceae



Erect perennial herb, up to 2 m high. Leaves ternately compound; leaflets ovate to broadly ovate or suborbicular, 1-3.5 cm long and wide, glabrous, lobed. Inflorescences terminal and axillary, panicles. Flowers white-violet. Achenes ellipsoid, ca. 3 mm long, ribbed, glabrous.



Flowering and fruiting season
June-September.

Distribution
E Himalayas, Myanmar, N Thailand.

Cotoneaster rubens W.W. Sm. Rosaceae



Shrub, deciduous, erect or prostrate, 0.5-2 m high, usually irregularly branched. Branchlets grayish black. Leaves suborbicular or broadly elliptic, 0.8-2 cm long, 0.6-2.5 cm wide, glabrous on upper surface, densely yellow tomentose on lower surface, base rounded, apex obtuse or acute with mucro. Inflorescences 1-flowered; Flowers 8-9 mm in diam. Hypanthium campanulate, abaxially pilose. Fruits red, obovoid, 6-9 mm in diam.



Flowering and fruiting season
June-July; fruiting: August-February.

Distribution
Bhutan, SW China, Myanmar.



Potentilla montisvictoriae H. Ikeda & H. Ohba
Rosaceae



Perennial herb, up to 25 cm high. Radical leaves pinnate interruptedly, 4-15 cm long, 1.5-3.5 cm wide; leaflets (5)7-13 pairs, pilose on upper surface, densely white tomentose on lower surface, margin serrate. Cauline leaves pinnate interruptedly; leaflets fewer, higher up stem. Inflorescences loosely corymbose-cymose. Flowers yellow, ca. 1.5 cm in diam.; petals obovate to broadly obovate, apex rounded.



Flowering and fruiting season
Almost throughout the year.

Distribution
Myanmar (Endemic to Natma Taung National Park).



Prunus cerasoides D. Don
Rosaceae



Deciduous tree, up to 12 m high. Leaves simple, alternate, ovate to lanceolate, 5-12 cm long, 3-5 cm wide, glabrous, base broadly cuneate, apex acuminate, margin serrate, petioles usually with (1-)2(-4) glands. Stipules laciniate, subulate, glandular, deciduous. Inflorescences axillary, fascicled or umbelled. Flowers pink or rarely white, 1-2 cm in diam. Fruits drupe, ellipsoid to ovoid, 10-13 mm long, red.



Flowering and fruiting season
November-January; fruiting:
February-June.

Distribution
Himalayas, China, Myanmar,
Thailand, Laos, Vietnam.



Luculia gratissima (Wall.) Sweet Rubiaceae

Shrub or small tree, up to 4 m high. Leaves simple, opposite, elliptic, lanceolate, or elliptic-oblong 5-15 cm long, 2-6.5 cm wide, glabrous on upper surface, pilose along veins on lower surface, base cuneate, apex acute to acuminate. Inflorescences corymbiform. Flowers pinkish or pinkish red, 3.5-6 cm long, ca. 3.5 cm wide. Fruits capsule, ca. 1.5 cm long.



Flowering and fruiting season

June-December; fruiting: September-May.

Distribution

NE India, Nepal, Bhutan, Myanmar, Thailand, Vietnam.



Neohymenopogon parasiticus (Wall.) Bennet Rubiaceae

Epiphytic or lithophytic shrub, up to 1 m high. Leaves simple, opposite, elliptic or lanceolate, 5-20 cm long, 2-10 cm wide, pubescent on both surfaces, base cuneate, apex obtuse to acute, margin entire. Inflorescences loose terminal trichotomous corymb, 5-8 cm long, subtended by white bracts. Flowers white, tube slender, salverform, 2.5-4 cm long. Fruits capsule, ellipsoid to oblong with hairs.



Flowering and fruiting season

July-August; fruiting: September-March.

Distribution

India, Nepal, Bhutan, SW China, Myanmar, Thailand, Vietnam.



Rubia sikkimensis Kurz Rubiaceae

Perennial herbs, creeping with rootstock and thickened roots, orange inside; stems quadrangular ribbed, hirsute. Leaves simple, opposite in whorls of 4, lanceolate, ovate or elliptic, 4-10 cm long, 2-4.5 cm wide, scabrous, base cuneate to rounded, apex acuminate or acute, margin entire. Inflorescences terminal and axillary paniculate. Flowers yellow or pale yellow, ca. 3 mm in diam. Fruits berry, black at maturity.



Flowering and fruiting season

October-February; fruiting: February-March.

Distribution

India, Nepal, Bhutan, SW China, Myanmar, Thailand, Vietnam.



Zanthoxylum acanthopodium DC. Rutaceae

Erect or scandent shrub, up to 5 m high, with stout spines. Leaves imparipinnate, 3-9-foliolate; rachis winged; terminal leaflets oblanceolate to elliptic, 1.5-9 cm long, 0.7-2.5 cm wide, base cuneate, apex rounded or acute, margin entire or crenate. Inflorescences axillary. Flowers pale yellowish green. Fruit follicles, red, globose, ca. 6 mm in diam., with large oil glands; seeds black, ca. 3 mm in diam.



Flowering and fruiting season
April-July; fruiting: August-October.

Distribution
India, Nepal, Bhutan, China, Myanmar, Thailand, Laos, Vietnam, Malaysia, Indonesia.



Buddleja asiatica Lour. Scrophulariaceae (Buddlejaceae)

Shrub, 1-3 m high; most parts with fulvous stellate hairs. Leaves simple, opposite, lanceolate to narrowly elliptic, 3-16 cm long, 1-4 cm wide, densely tomentose beneath, base cuneate, decurrent or winged, apex acuminate, margin subentire to remotely serrate. Inflorescences axillary or terminal, thyrsoid to spiciform, up to 25 cm long. Flowers white, tubular, 4-8 mm long. Fruits capsule, ellipsoid, 3-5 mm long.



Flowering and fruiting season
November-March.

Distribution
India, Nepal, Bangladesh, China, SE Asia.



Buddleja macrostachya Wall. ex Benth. Scrophulariaceae (Buddlejaceae)

Shrub, 1-3 m high; most parts with fulvous stellate hairs. Leaves simple, opposite, lanceolate to narrowly elliptic, 4-16 cm long, 1-6 cm wide, densely tomentose beneath, base cuneate to decurrent, apex acuminate, margin serrate. Inflorescences terminal, spiciform, up to 20 cm long. Flowers creamy yellow with pink patch or purple with yellow patch, tubular, 7-13 mm long. Fruits capsule, ellipsoid to narrowly ovoid, 7-10 mm long.

Flowering and fruiting season
November-April; fruiting: February-June.

Distribution
India, Nepal, Bhutan, Bangladesh, S China, Myanmar, Thailand, Vietnam.



Symplocos lucida (Thunb.) Siebold & Zucc.

Symplocaceae



Tree, up to 8 m high. Leaves simple, alternate, elliptic, 6-15 cm long, 2-5 cm wide, glabrous on both surfaces, base cuneate, apex acuminate, margin subentire. Inflorescences axillary dense spikes. Flowers white to creamy, 4-6 mm long. Fruits drupe, ellipsoid.



Flowering and fruiting season
December-March; fruiting: March-June.

Distribution
India, Bhutan, SE Asia.



Viola biflora L.

Violaceae



Rhizomatous perennial herb; stipules ovate or ovate-lanceolate, 3-5 mm long, entire or remotely denticulate. Leaves simple, alternate, reniform, broadly ovate to orbicular, 1-4.5 cm long, glabrous or sparsely puberulous, margin obtusely dentate to crenate, petioles 4-8 cm long. Flower solitary, axillary, yellow, with dark purple veins, 6-10 mm long. Fruits capsule, oblong-ovoid, 4-7 mm long.



Flowering and fruiting season
May-July; fruiting: July-October.

Distribution
N America, Europe, Himalayas, China, Myanmar, Indonesia (Sumatra), Korea, Japan.

Schima wallichii (DC.) Korth.

Theaceae



Tree, up to 15 m high; branchlets lenticellate, sparsely hairy. Leaves simple, alternate, lanceolate, oblong to elliptic, 7-20 cm long, 2-7 cm wide, sparsely pilose or glabrous, base cuneate or rounded, apex acute or acuminate, margin mostly entire, rarely serrate or crenate. Inflorescences axillary, crowded at the branch ends and raceme-like or solitary. Flowers white, slightly connate below, rounded at apex. Fruits capsule, subglobose, 2-4 cm in diam., silky when young, glabrous later.

Flowering and fruiting season
April-September; fruiting: July to throughout the year.

Distribution
India, Nepal, Bhutan, S China, SE Asia.



Viola pilosa Blume

Violaceae



Stoloniferous perennial herb; stipules lanceolate to oblong, 7-18 mm long, fimbriate. Leaves simple, alternate, ovate, 1.5-8 cm long, 1-5.5 cm wide, pubescent on both surfaces, base deeply cordate, apex acute, margin crenate-serrate; petioles 1.5-15 cm long. Flower solitary, axillary, violet, blue or white, with dark blue veins, 8-13 mm long. Fruits capsule, ovoid to subglobose, 5-6 mm long.

Flowering and fruiting season
February-July; fruiting: August-November.

Distribution
Afghanistan, Pakistan, Himalayas, Sri Lanka, SE Asia.



***Globba wardii* (B.L. Burtt & R.M. Sm.) K.J. Williams**
Zingiberaceae



Rhizomatous herb, 30-70 cm high. Leaves simple, distichous, oblong-elliptic, 6-15 cm long, 2-5 cm wide, pubescent on upper surface, only hairy on veins on lower surface, base auriculate, apex acuminate. Inflorescences terminal thyrse, on leafy shoot. Flowers purple or very rarely white.



Flowering and fruiting season

June-September.

Distribution

Only known from two localities: one in Natma Taung National Park, Myanmar and recently found in Blue Mountain National Park, Mizoram, India.

***Hedychium spicatum* Sm.**
Zingiberaceae



Rhizomatous herb, 1-2 m high. Leaves simple, distichous, oblong-lanceolate, 10-50 cm long, 3-10 cm wide, glabrous on upper surface, sericeous on lower surface, base acute, apex acuminate. Inflorescences terminal, spikes with dense many flowers. Flowers white or pale yellow tinged yellow-orange, fragrant, ca. 10 cm long. Fruits capsule, red-brown.



Flowering and fruiting season

May-November.

Distribution

India, Nepal, Bhutan, China, Myanmar, N Thailand.

***Roscoea australis* Cowley**
Zingiberaceae



Rhizomatous herb, up to 25 cm high; roots tubers. Leaves 2-4, oblong or lanceolate, 5-15 cm long, 1-3.5 cm wide, glabrous on both surfaces, base subrounded, apex acuminate. Flowers single with peduncle, purple and white, ca. 3 cm wide.



Flowering and fruiting season

May-September.

Distribution

Myanmar.



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