

FIELD NOTES
OF
RHODODENDRONS
AND OTHER PLANTS
COLLECTED BY
KINGDON WARD
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RHODODENDRONS

1931.

KW 9,130. *Rhod. sp.* (§ Maddeni). (*R. taronense* ? or *R. dendricola* ?)

“A small shrub, growing on a boulder in the river bed. Flowers white, practically over, inaccessible; solitary or in pairs, rarely three together. Leaves glabrous above, closely lepidote beneath. This species is commonly epiphytic in the hill jungle, flowering in the winter, November-January. Valley of the Nam Tamai, 3,500-5,000 ft. 12/1/31.”

KW 9,170. Rhod. sp. (§ Maddeni).

“ An epiphytic shrub, usually seen high up in the tree tops, overhanging the river. In fruit. It differs from No. 9,130 in minor characters—longer and narrower leaves, with scales further apart, etc.—but may be a mere variety. Probably the same as No. 6,676 (1926). Adung Valley, 4,000 ft. 26/1/31.”

KW 9,195. Rhod. sp. (§ Irroratum).

“ A fairly large bushy shrub. Leaves on flowering plants up to 16 ins. long by 5 ins. wide. Flowers not seen, probably crimson, in lax trusses of about a dozen. Grows in the forest and along the river bank, between 5,000 and 7,000 ft. Half-hardy : near R. Kyawi ? Adung Valley. 1931.”

KW 9,200. Rhod. sp. nov. ? (§ Grande ? Falconeri ? No. 9,301).

“ A big tree, up to 50 ft. high, and 6 ft. in girth towards the base ; may bear flowers as a shrub 10 ft. high. Leaves with a coating of snow-white felted hairs beneath, which slough off later ; on young plants, often 18 ins. long by 9 ins. wide, on maturer trees 12 ins. long by 6 ins. wide. Trusses hemispherical, about 30-flowered, corolla 3 ins. long, darker or lighter rose-purple, with 8 dusky purple honey pockets at the base, but no flash, the colour variable, but uniform for each tree ; some have almost crimson flowers. Blooms from mid-February to the end of March, according to altitude. Never gregarious like *R. sino-grande*. It grows scattered throughout the forest, both on the sheltered and exposed flanks of the valley, between 5,000 and 8,000 ft. Common along the river bank in mixed forest between 6,000 and 7,000 ft., where the finest specimens were seen. A tree by the river, 50-60 ft. high, carried over 500 trusses, and in mid-February was a gorgeous spectacle. Adung Valley. 1931.”

KW 9,210. *Rhod. insculptum*.

“ In fruit, the bodkin-shaped capsules now opening. Seeds golden brown, spindle-shaped, with very long tails. See No. 9,405. Adung Valley, 6,000 ft. 6/11/31.”

KW 9,220. *Rhod. Taggianum* ?

“ An epiphytic shrub, growing on a tree which overhangs the river. In fruit. Ripe capsule $2\frac{1}{4}$ ins. long, style 2 ins. Seeds coffee coloured. See No. 9,402. Adung Valley, 6,000 ft. 7/11/31.”

KW 9,221. *Rhod. sp. nov.* ? (§ *Boothii*. = No. 9,371).

“ A small bushy shrub, epiphytic in the forest, or on rocks in the river bed. Bark red and papery, peeling easily. Leaves large for the section. Flowers in a fairly compact truss, of 4 to 6, bright butter yellow, the corolla $1\frac{1}{2}$ ins. long and as much across. In bloom from early February to late May, according to altitude : 6,500-8,500 ft. Adung Valley. 1931. (A neater plant than *R. mishmiense* No. 8,113, though the flowers are not so deep a yellow ; it bears no outward resemblance to that species, and is probably anomalous in the section).”

KW 9,236. *Rhod. tanastylum* variety ?

“ A large bushy shrub at low levels, a small tree in the forest higher up. Flowers variable, often bright cherry-crimson or purple-crimson, evenly freckled with dark commas : five dark honey pockets at the base. Truss loose, about 8-flowered. In bloom from early February at 6,000 ft. to mid April at 8,000-9,000 ft. in the forest. Very free flowering, and a fine sight in full bloom. The flower colour. is remarkably different from that of the Delei Valley form, No. 8,044. See also No. 9,323. Adung Valley. 1931.”

KW 9,250. *Rhod. aureum* ?

“ A small twiggy shrub, in fruit, growing on rather bare cliffs in a snow-choked glen on the sheltered side of the valley. Bark like thin paper, reddish brown, peeling easily. Truss five-flowered, in a solid head. Seeds minute, golden. See No. 9,400. Adung Valley, 6,500 ft. 19/11/31.”

KW 9,252. *Rhod. sp.* (§ Maddeni).

“ A small bushy shrub growing on the open cliffs. In fruit. Probably the same as No. 9,170. See No. 9,360. Adung Valley, 6,500 ft. 21/11/31.”

KW 9,254. *Rhod. seingkuense.* (= No. 9,543).

“ A small shrub, usually epiphytic, but also found on cliffs in the forest, up to nearly 9,000 ft. Flowers rather small, pale yellow, borne singly or in pairs on short pedicels. In bloom throughout March and April between 6,000 and 9,000 ft. A species of botanical interest rather than of horticultural merit ; for it has the flowers of § Boothii with the leaves of § Edgeworthii, and the habit of either. Foliage and flowers, however, go well together, and are closely associated, so that free flowering plants are quite attractive. Originally collected in the Seingku Valley (No. 6,793), but probably not in cultivation. Adung Valley. 1931.”

KW 9,258. *Rhod. vesiculiferum*. (§ *Barbatum*).

"A small tree, growing in the forest (which is still under snow), where *Tsuga* first appears. See No. 9,485. Adung Valley, 8,000-9,000 ft. 23/II/31."

KW 9,260. *Rhod. arizelum*. (§ *Falconeri*).

"A small gnarled tree, forming much of the undercover in *Tsuga* and mixed forest, still under snow. The stout trunk grows out almost horizontally from the steep face, but the crown is borne erect. Leaf indumentum cinnamon brown. See Nos. 9,397, 9,544. Adung Valley, 8,000-9,000 ft. 23/II/31."

KW 9,261. *Rhod. megacalyx*. (§ *Maddenii*).

"A lanky shrub, growing on boulders in the river bed, and on the cliffs above. It flowers in May. In bud at 6,500 ft. Adung Valley. 25/II/31."

KW 9,263. Rhod. Sp. (§ Neriiflorum).

"No. 9,222 in full bloom, a fine sight. Not gregarious, but fairly common along the river cliffs, scattered through the forest with the much commoner big 'Grande' (No. 9,200) Adung Valley, 6,500 ft. 25/11/31."

KW 9,273. Rhododendron manipurense ? (§ Maddeni).

"A large gloomy looking shrub, the heavy leaves rusty brown beneath, owing to the scales overlapping, dark bottle green above, rather glossy. Scattered in the snowbound forest, with *R. vesiculiferum*, and other species, at 8,000-9,000 ft. See No. 9,584. Adung Valley. 25/11/31."

KW 9,274. Rhod. Nuttallii. (§ Maddeni).

"A tall thin shrub, growing on boulders in the river bed as low down as 5,000 ft. and on the cliffs as high up as 7,000 ft. Often epiphytic, along the river bank. Common. See No. 9,466. Adung Valley. 26/11/31."

KW 9,275. *Rhod. stenaulum* ? (§ *Stamineum*).

“ A forest tree, 20-40 ft. high. Bark thin and papery, revealing the smooth glossy trunk beneath. Leaves dark glossy green, quite glabrous except when young. Flowers solitary and axillary, with persistent bud scales ; the corolla butterfly shaped, though with a well developed tube, deep purplish rose, very fragrant. Scattered in the heavily wooded gullies, and in the forest, between 6,000 and 8,000 ft. In bloom from the end of February to the middle of April. Probably the same as No. 6,729 from the Seinghku Valley ; the flowers are much darker than those of the Delei Valley form, No. 8,056. Adung Valley. 28/11/31.”

KW 9,293. *Rhod. sp.* (§ *Neriiflorum*).

“ A small rounded bush, not above 6 ft. high. Leaves much shorter and broader than those of No. 9,222, flowers more brick red, with an internal glow, in compact trusses. It grows on the cliffs and exposed sunny ridges at 7,000 ft. flowering in March. Hardly separable from No. 9,222 by botanical characters, but a well marked variety. Adung Valley. 1931.”

KW 9,301. Rhod. Sp. (§ Grande ? Falconeri ?)

“ Same as No. 9,200. Still in good bloom at 8,000 ft. on the exposed flank. The flower colour varies, but is always some shade of rose-purple without marks. Adung Valley.”

KW 9,321. Rhod. sp. (§ Neriiflorum. = No. 9,506).

“ A stout shrub, 8-10 ft. high inside the forest, but stunted on the open ridge. Leaves short and narrow, with a loose white cottony covering beneath. Flowers small, waxy blood red, in trusses of 10-12; buds very dark, almost black. Differs in many botanical characters, as well as in appearance, from No. 9,293, and is probably distinct. It blooms from the end of March to the middle of May, at 8,000-9,000 ft. Adung Valley. 1931.”

KW 9,322. Rhod. sp. (§ Thomsoni).

“ A small tree, its stout tawny bole bearing a large crown of twisted and gnarled branches. Flowers variable, pale rose purple, pinkish purple, or sometimes almost white, the upper lobe marked with a broad plume of crimson-ochre spots, the lower with lighter mackerel spotting ; at the base are five dark honey pockets ; about $1\frac{1}{2}$ ins. long and $1\frac{3}{4}$ ins. across, in tight rounded trusses, freely borne. In bloom from early March in the forest, standing in deep snow, so that its curled leaves still hang stiffly down, showing up the flowers well. A handsome, but probably not very distinct species, scattered in mixed forest where *Tsuga* and *Abies* meet, at about 9,000 ft. altitude. Adung Valley. 1931.”

KW 9,360. *Rhod. sp.* (§ Maddeni).

“ As seen growing on the open cliffs a small compact shrub. In bud, and in fruit. Apparently it blooms in winter, and is probably the same as No. 9,170. It is associated with No. 9,361, which blooms in April, and from which it can perhaps be separated by minor characters. These small epiphytic hill jungle ‘ Maddenis ’ are, however, rather involved. Adung Valley, 6,500 ft.”

KW 9,361. *Rhod. sp.* (§ Maddeni).

“ A lanky shrub, epiphytic or not, common in dense thickets, and on the cliffs with No. 9,360. Leaves leathery, broadest towards the apex, very closely lepidote below. In bud, early April, at 6,500 ft. See No. 9,403. Adung Valley.”

KW 9,371. *Rhod. sp.* (§ Boothii).

“ Same as No. 9,221. In bloom till the end of March or early April at its uppermost limit. Adung Valley.”

KW 9,382. *Rhod. sp.* (§ *Neriiflorum*).

"A bushy shrub, in full bloom throughout April at 8,000-9,000 ft. on the cliffs and in thickets still under snow, on the sheltered side of the valley. Leaves very small, quite glabrous. Flowers bright carmine-scarlet, in trusses of 6-7 visible from afar. Adung Valley. 1931."

KW 9,383. *Rhod. sp. nov.?* (§ *Thomsoni*. = No. 9,492).

"A small gnarled forest tree, with glassy smooth fawn coloured bark. Leaves with a waxy white bloom beneath. Flowers a deep rich crimson cerise, large and fleshy, in lax racemose trusses of 6-8; calyx large, collar-like, stained crimson, lighter than the corolla. Grows chiefly on the cliffs, lining the steep glens, at 8,000-9,000 ft., flowering in April and May. A really fine plant, but not superior to *R. Thomsoni* itself. It may be closely related to *R. cerasinum* (Nos. 6,923, 8,258). Adung Valley. 1931."

KW 9,385. Rhod. sino-grande ?

“ A form with cream coloured flowers, pinkish in bud. More common is the typical sulphur flowered variety. In full bloom in the forest, on the sheltered flank, at 7,000-8,000 ft., early April; rather later on the exposed flank. Adung Valley. 11/4/31.”

KW 9,394. Rhod. riparium ? (§ Saluenense).

“ An undershrub, growing scattered on rocks in the dense Rhododendron-Conifer forest, and now almost buried under snow. Leaves brown and drooping. Adung Valley, 9,000-10,000 ft. 26/3/31.”

KW 9,397. Rhod. arizelum. (§ Falconeri).

“ Scattered, but common in the forest on both sides of the valley, from 8,000 ft. upwards. Flowers pale sulphur, with a small purple flash at the base, colouring the eight shallow pocket-glands; fragrant, smelling of honey. (See No. 9,544.) Truss 12-15-flowered, large and compact. Leaves dark green above with deeply engraved veins, and foxy red indumentum beneath. In full bloom. Adung Valley, 8,000 ft. 15/4/31.”

KW 9,399. *Rhod.* sp. (§ *Vaccinioides*).

"A stringy-looking epiphyte with very small leaves, polished above, the under surface scales widely scattered. In fruit. A single plant found in a deep wooded ravine. Perhaps the same as No. 9,440. Adung Valley, 7,000-8,000 ft."

KW 9,400. *Rhod. aureum*?

"A virgate shrub, slender, 10 ft. high, growing on the edge of the forest. Bark papery, chocolate red, hanging in tatters. Leaves matt green above, smoky grey beneath, closely lepidote. In bud. Trusses about six-flowered. Not common. Probably the same as No. 9,250. See also No. 9,567. Adung Valley, 7,000 ft. 15/4/31."

KW 9,402. *Rhod. Taggianum*? (= No. 9,220).

"A stripling shrub, usually growing in dense thickets along the river bank, but always leaning out over the river; sometimes epiphytic. Flowers large, trumpet shaped, cream white, with a broad pale yellow plume spreading over the upper half; the texture of the corolla gives it the appearance of having been hewn out of marble. Lobes recurved, so that they touch the tube. Sweetly fragrant. Truss 2-3 flowered. In bloom at 6,000 ft. during the latter half of April. Adung Valley. 1931."

KW 9,403. *Rhod. sp.* (§ Maddeni. = No. 9,361).

"A weak straggling shrub, when growing in thickets along the river bank, the stem attaining a length of 10 or 12 ft., but bending over; more bushy and compact when growing on the cliffs, or as an epiphyte at the very tops of the trees, as it commonly does. Flowers white flushed pink, with a large yellow plume overspreading the upper lobe, butterfly shaped, $4\frac{1}{2}$ ins. across, sweetly fragrant after rain, borne in trusses of 2-3, rarely 4. Abundant as a forest epiphyte, at 7,000 ft. blooming in the second half of April. On the cliffs it is associated with No. 9,360. Adung Valley. 1931."

KW 9,405. *Rhod. insculptum*. (= No. 9,210).

"A straggling epiphyte, with rather big leaves, and small bright glossy orange flowers, with orange-brown anthers, which show up well amongst the dark green foliage. Commonly found on trees overhanging the river at about 6,000 ft. altitude; it likes deep shade and a well saturated atmosphere. Probably a difficult species, but the fine flower colour is tempting. Adung Valley. 1931."

KW 9,413. *Rhod. sp.* (§ Thomsoni).

"A sprawling undershrub with stems ascending a foot or less. Flowers large, always in pairs, nodding on rather long erect pedicels; white to pale rose, heavily freckled with crimson. It forms large clumps on the precipitous smooth granite slabs and cliffs, on the sheltered flank of the valley at 8,000-9,000 ft. and is difficult to get at. In full bloom on April 20. Though not easily separated from No. 9,500 by botanical characters (other than the paired flowers), it is nevertheless very distinct: *c.f.* also *R. Martinianum*. A beautiful little plant."

KW 9,414. *Rhod. sp.* (§ *Brachyanthum* ?)

“ A small bushy undershrub, forming tuffets on the granite cliffs with No. 9,413. Flowers pale yellow, with brown anthers, in loose trusses of two or three. A much smaller plant than No. 9,704, in bloom two months earlier. Adung Valley, 8,000-9,000 ft. 20/4/31.”

KW 9,415. *Rhod. sp. nov.* (§ *Glaucum*. = No. 9,490).

“ A small forest tree 20-25 ft. high. Leaves papery, snow-white beneath owing to a film of wax ; about 6 ins. long by 2 ins. wide. Young foliage pale sea green above. Flowers small (about the size of those of *R. pruniflorum*), deep cherry red with a light bloom on the outside, borne on long pedicels in big terminal bunches of 20-25. In spite of their small size, which is compensated for by their numbers, the flowers present a remarkable spectacle with the sunlight streaming through them : like bunches of blood red cherries. In bloom April, May, 7,000-8,000 ft. in the forest. Rare. An unique and wonderful species. Adung Valley. 1931.”

KW 9,416. *Rhod. tephropeplum*.

"A small shrub, growing in a wet gulley amongst the granite cliffs. Buds carmine. Common, with No. 9,382 in thickets of Bamboo. See No. 9,565. Adung Valley, 8,000-9,000 ft. 20/4/31."

KW 9,440. *Rhod. sp.* (§ *Vaccinioides*).

"A wiry epiphyte, common on trees overhanging the river, associated with *R. insculptum*. It has much smaller leaves than that species, and blooms later. In fruit. Adung Valley. 6,000 ft. 29/4/31."

KW 9,466. *Rhod. Nuttallii*. (§ *Maddeni*).

"Flowers variable, more or less white, sometimes tinged yellow, especially when first open; very fragrant. Blooming finely this year, many plants carrying 12 or 15 trusses, each with 3-5 (rarely 6) flowers. Adung Valley, 6,000 ft. 10/5/31."

KW 9,478. Rhod. sp. (§ Triflorum).

"An aromatic wiry shrub, 3-5 ft. high, growing in thickets on the forested cliffs, at 8,000-9,000 ft. Flowers small, limpid yellow, the upper lobe overprinted with a plume of greenish spots. Young leaves already well developed at lower altitudes. This is probably the same as No. 7,121 collected out of bloom in 1926. A poor species as seen here. Adung Valley."

KW 9,479. Rhod. sp. (§ Fulvum ?)

"A small gnarled tree with dark green, somewhat polished leaves, woolly white beneath. Flowers not large, variable in colour from almost white to faintly purple, or purplish pink, always with a purple flash at the base, in loose trusses of 10 or 12. The capsule recalls that of *R. fulvum*, but the leaf indumentum is quite different. Scattered in the forest from 8,000 to 10,000 ft. where it meets and mingles with the far more abundant and gregarious *R. arizelum*. In bloom April, May. Adung Valley. 1931."

KW 9,483. *Rhod. sp.* (§ *Neriiflorum*).

"A shrub, scattered in thickets on the granite cliffs, with the "Triflorum" No. 9,478. Flowers just opening, a rather gloomy orange. See No. 9,561. Adung Valley, 9,000 ft. 16/5/31."

KW 9,485. *Rhod. vesiculiferum.* (§ *Barbatum*).

"Buds carmine, flowers variable, from almost white in full sun to deep rose within the forest, with a dusky purple flash at the base. A beautiful species. Abundant between 8,000 and 9,000 ft. Adung Valley. 16/5/31."

KW 9,490. *Rhod. sp.* (§ *Brachyanthum* ?)

"Same as No. 9,415. Fairly common, but widely scattered, in dense Bamboo thickets on the sheltered side of the valley. The young leaves are fully developed. In bloom till the end of May. Adung Valley, 8,000-9,000 ft. 14/5/31."

KW 9,492. *Rhod. sp.* (§ *Thomsoni*).

"Same as No. 9,383. Still in good bloom on the heavily timbered cliffs of the sword-cut glens, at 9,000 ft. Flowers dark cerise. Adung Valley. 16/5/31."

- KW 9,500. *Rhod. sp.* (§ *Souliei. c.f. R. Fargesii*).
 “ A well formed bush, about 8-10 ft. high, smothered with gracious pale pink bells, in loose trusses of 4 to 6. Buds carmine. Leaves small and neat, dark green above, with a faintly golden skein of hairs beneath. Forms dense thickets all up the valley between 9,000 and 12,000 ft. In full bloom from the middle of May to the end of June. See Nos. 9,413, 9,470: also No. 9,621. Adung Valley. 1931.”

- KW 9,503. *Rhod. crinigerum*.
 “ A stout shrub, growing in thickets on the cliffs with No. 9,500. Flowers almost over, white, with a purple flash at the base. Ascends to 12,000 ft., being then much stunted on the cliffs, but growing into a small tree in the *Abies* forest, where it accompanies *R. Beesianum*. *R. crinigerum* from the Mishmi Hills (No. 8,164) had purplish pink flowers; there are several colour varieties. Adung Valley, 9,000-10,000 ft. 19/5/31.”

KW 9,504. *Rhod. bullatum*. (§ *Edgeworthii*).

"A rather straggling shrub, partly leaning on its neighbours for support. Flowers white, fragrant, in pairs; calyx pink. The leaves are not typically those of *R. bullatum*. In thickets and on wooded cliffs, 9,000-10,000 ft. Adung Valley. 19/5/31."

KW 9,505. *Rhod. sp.* (§ *Oreotrepes*).

"A slim tree, 20 ft. high, or more, branched almost to the base, the lower branches almost virgate, the upper ones filling out a well-formed crown. Flowers a beautiful shade of purplish lilac, usually quite plain, sometimes crimson spotted, in loose trusses of 3 to 5, borne in vast numbers amongst the fresh green young foliage in mid May. A gorgeous sight on the cliffs, visible a mile away amidst an ocean of *R. arizelum*. It generally grows in company with No. 9,500, the two contrasting splendidly. In bloom May, June, 9,000-12,000 ft. (Same as No. 9,509. It recalls an unnamed species collected in Tibet in 1924, No. 5,790)."

KW 9,506. *Rhod. sp.* (§ *Neriiiflorum*).

“ A stout little bush, scattered in the forest. Flowers carmine rather than blood red, but mostly passing over, in loose floppy trusses of six to eight. At 8,000 ft. quite over ; at 9,000 ft. still in fair bloom, though battered by rain. This may be the same as No. 9,321 ; it is not No. 9,222. Adung Valley. 19/5/31.”

KW 9,509. *Rhod. sp.* (§ *Oreotrephes*).

“ Same as No. 9,505. At 9,000 ft. it grows with *R. arizelum* ; at 12,000 ft. with the ‘ Souliei,’ No. 9,621. The trees are smothered in blossom ; one of the most free flowering and charming species. Adung Valley. 21/5/31.”

KW 9,517. *Rhod. sp.* (§ *Saluenense*).

“ Forms dwarf tussocks on the cliffs lining a snow-filled gulley, at 8,500 ft., where there is an incursion of alpenes into the temperate forest. Flowers bright purple, just in bloom. See No. 9,717. Adung Valley. 23/5/31.”

KW 9,519. Rhod. sp. (§ Trichocladum).

"A deciduous shrub, now in full foliage and bloom. Leaves rimmed with red. Flowers bright yellow, darkly spotted. Scattered on the cliffs and in thickets by a big snow slide at 8,500 ft. See No. 9,620. Adung Valley. 23/5/31."

KW 9,529. Rhod. sp. (§ Virgatum).

"A rather stunted bushy shrub, the branches virgate. Flowers over. (Corolla pubescent *and* scaly outside; the crimson style pubescent for nearly half its length, with a few scattered scales at the extreme base. This is not *R. virgatum*). Leaves small. Half a dozen plants found on a rock in the river on May 24, at 8,000 ft. Not seen again. Adung Valley. 1931."

KW 9,543. Rhod. seingkuense. (§ Edgeworthii ? Boothii ?)

"Same as No. 9,254. Common on rocks and trees in the forest up to 8,000-9,000 ft., where it forms large spreading cushions. Flowers almost over, the leaf buds just breaking. Adung Valley. 15/5/31."

KW 9,544. *Rhod. arizelum.* (§ *Falconeri*).

“The commonest tree species between 9,500 and 11,000 ft., growing socially and forming most of the second tier of forest trees. On the sheltered side, the flowers are almost always pink, occasionally crimson-carmine in bud. Here No. 9,479 is scattered through it. On the exposed side, where it is equally common, the flowers are usually cream, sometimes pink, or crimson; and here it is mixed with the ‘*Oreotrephes*,’ No. 9,509. In magnificent bloom throughout May, especially a shrub form at 11,000 ft. Adung Valley.”

KW 9,561. *Rhod. sp.* (§ *Neriiflorum*?=No. 9,483).

“A well-knit bushy shrub, up to 8 ft. in height, bearing trusses of drooping tawny-orange flowers in fives, half-hidden amongst the smooth foliage. Actually the corolla shows a broad band of rich yellow down each lobe on a brick red ground; but the general effect is orange. Flowers sparingly in the forest, more freely in the open, between 7,000 and 9,000 ft. In bloom throughout June. A striking species of unusual, though somewhat gloomy colour, transformed in the sunlight; but the flowers are apt to lie deep amongst the foliage. Adung Valley. 1931.”

KW 9,565. *Rhod. tephropeplum*.

“Flowers rosy purple, just coming into bloom. A small shrub, the stems erect or ascending, forming tangles on the precipitous flank of a wooded ridge, under the Fir trees, at 10,000-11,000 ft. Adung Valley. 31/6/31.”

KW 9,567. *Rhod. aureum* ?

“A wiry shrub, with pale golden yellow flowers in capitular trusses of four. It is confined to the forested cliffs, where it grows amongst a tanglewood of *R. bullatum*, *R. manipurens*, and other shrubs, but it outstrips them all in height, leaning down from the cliff towards the light. It differs in several points from *R. aureum* of the Mishmi Hills (No. 8,101), but is probably identical with No. 6,751, from the Seinghku Valley. Adung Valley. 31/5/31.”

KW 9,569. *Rhod. megeratum*.

“A big rounded cushion shrub, hanging from the wet moss-smothered rocks of the precipitous ridge, under the Fir trees. Flowers large, pale yellow solitary or in pairs. It does not differ sensibly from No. 6,819 (Seinghku Valley) or from No. 8,225 (Mishmi Hills). Adung Valley, 10,000-11,000 ft. 31/5/31.”

KW 9,584. *Rhod. manipurensense* ? (§ Maddeni).

"A well-knit bush. Flowers in trusses of four, white, purple tinged without, splashed yellow within, fragrant. Just coming into bloom. Common in thickets along the river bank, and on the wooded cliffs. It blooms earlier than typical *R. manipurensense*, e.g., No. 7,136 from the Di Chu Valley, and No. 8,400 from the Mishmi Hills. Adung Valley, 2/6/31."

KW 9,591. *Rhod. sp.* (§ *Cephalanthum*).

"An aromatic twiggy undershrub, forming compact tufts, hardly ever a foot high, amongst the piled granite boulders where scarcely anything else will grow; or, at higher altitudes (No. 9,641), moulding itself to the rock faces, as flat as *R. repens* (with which it is associated), in the steepest alpine scuppers. Flowers rather large, white, pale shell pink or rose, in tight conspicuous bobbed heads of 5-10, scattered freely amongst the crisp leaves, which are foxy red beneath. In bloom throughout June and into July, 9,000-13,000 ft. Adung Valley, 1931. This species is not *R. crebreflorum* (No. 8,337) but is probably identical with No. 6,967 (1926)."

KW 9,601. *Rhod. Beesianum*. (§ *Lacteam*).

- “ In the forest a small tree 20-25 ft. high, in the alpine region a large bushy shrub. Always found growing socially, one of the last tree *Rhododendrons*, ascending higher than *R. arizelum*, and as high as No. 9,795. Flowers generally pure white, with a mere spot of crimson-purple at the base, occasionally flushed, or broadly striped with pale pink on the outside, giving a charming effect; rather small, bell-shaped, in ample trusses of 18-24.
- The leaves, in the alpine form at least, only stay on the tree for two years, those of the previous year turning colour in the autumn and drooping. Somewhat prone to leaf disease, (‘ Blister Blight ’). Passing over at 12,000 ft. by June 8; thus it flowers earlier than No. 6,953, from the adjacent Seinghku Valley. Adung Valley, 11,000-13,000 ft. 8/6/31.”

KW 9,608. *Rhod. chaetomallum* ? (§ *Neriiflorum*. *Haematodes*).

“A scrub bush, growing in dense tangled thickets on the steep sheltered alpine slopes. Flowers glossy blood red, in dangling bunches of 4-6. The leaves are rather small, the indumentum rather smoke-coloured ; otherwise this is probably typical *R. chaetomallum*. Adung Valley, 12,000-13,000 ft. 8/6/31.”

KW 9,609. *Rhod. sp.* (§ *Lapponicum*. *c.f.* *R. chryseum*).

“A bushy undershrub of compact growth, forming an intricate *Rhododendron* Heath about a foot deep, in open boggy meadow. It also grows all up the steep rocky southern face of the mountain and on alpine summits where the snow melts early, from 11,000 to 14,000 ft. Flowers bright sunny yellow, sometimes cream, in packed heads of 5-10, borne freely amongst the pewter coloured leaves which are bronze red beneath. A charming dwarf, but probably not superior to the other yellow-flowered ‘*Lapponicums*.’ In bloom throughout June. Adung Valley. 1931.”

KW 9,620. *Rhod. sp.* (§ *Trichocladum*).

“Probably an alpine form of No 9,519, ascending to 13,000 ft., where, in places it makes up a large proportion of the *Rhododendron* scrub—this on the exposed slopes. The flowers appear in June, before the leaves are developed. Adung Valley. 9/6/31.”

KW 9,621. *Rhod. sp.* (§ *Souliei*).

“Probably a high altitude form of No. 9,500, ascending to the tree line at 13,000 ft. and forming a tangled growth on the granite cliffs, and amongst the chaotic moraines within the Fir forest. The colours of the flowers are much more variable than those of No. 9,500—milk-white, cream flushed salmon, rose, and other shades; the leaves are smaller, rounder, and glabrous. In full bloom throughout June, the leaf buds just breaking in early June. Adung Valley. 1931.”

KW 9,629. *Rhod. repens.* (§ *Neriiflorum*, *Forrestii*).

“A form with very elongated corolla and small leaves. Adung Valley, 12,000 ft. 10/6/31.”

KW 9,633. *Rhod. riparium*. (§ *Saluenense*).

"Flowers royal purple, lighter or darker, the upper lobe more deeply spotted; large (2 ins. across), in twos or threes. Abundant from 11,000 ft. upwards. Now in full bloom below, scarcely in flower above 12,500 ft., where it forms much of the low scrub. A good form, but not exceptional. Adung Valley. 12/6/31."

KW 9,634. *Rhod. sp.* (§ *Thomsoni*).

"At 12,000 ft. a bulky shrub, scattered in thickets of the 'Souliei,' No. 9,621, more stunted at 13,000 ft. where it is in good bloom, the old leaves still drooping and curled, no new leaves yet showing. Flowers pale yellow, faintly freckled over with purple, in loose trusses of 6-7. Apparently stable. In the Seinghku Valley, what is probably the same species was collected in several colour varieties (See Nos. 6,920, 6,922). Not quite first-class, but should be very hardy; the young foliage, in early July, is pleasant. Adung Valley. 12/6/31."

KW 9,635. *Rhod.* sp. (§ *Neriiflorum*. §§ *Forrestii*).

“ A prostrate plant, trailing amongst the rocks and hanging down in a curtain of long shoots. A solitary plant, found hidden away in dense *Rhododendron* scrub, betrayed only by its bright pinkish carmine 4-flowered trusses. Allied to ‘ *Carmelita* ’ (No. 5,847) and to ‘ *Rose of Kaso* ’ (No. 8,341), but differing obviously in its narrow more pointed leaves, and in the colour of its flowers. As a garden plant at least it is distinct, and a fine species, the flowers much larger than those of *R. repens*. Adung Valley, 12,000 ft. 15/6/31. (Seed of 1929-1930 only, insufficient for distribution). ”

KW 9,636. *Rhod. sp.* (§ *Lapponicum*).

"A natural hybrid, No. 9,609 × another unknown species, or perhaps colour variety : this other parent *may* be No. 9,710, or No. 10,005. It grows with No. 9,609 only in the wet glacier meads, *not* on the mountain flanks, mingling with it, and out of flower cannot be distinguished from it. The flower colours are almost indescribable—crushed strawberry, salmon pink, apricot ; there are also some muddy half-tones. Blooms with No. 9,609. Seed collected from the best colour varieties, but these may not all come true. Adung Valley. 1931."

KW 9,637. *Rhod. chaetomallum*, variety ?

"A more lowly and prostrate plant than typical *R. chaetomallum*, with much smaller leaves, the foxy red fur of which is easily removed. It has the same glossy scarlet flowers, in trusses of 4-5, as *R. chaetomallum*, and the general look of that species. A solitary specimen found plastered over a boulder at 12,500 ft., in June. Adung Valley. 1931."

KW 9,641. *Rhod. sp.* (§ *Cephalanthum*).

“A dwarf prostrate form of No. 9,591. It moulds itself to the bare rocks in the steep alpine scuppers, lying as flat as *R. repens* with which it is associated. Probably the same as No. 6,967 from the Seinghku Valley. Adung Valley, 13,000 ft.”

KW 9,665. *Rhod. sp.* or hybrid?

“A small ascending shrub, with the leaves of *R. chaetomallum*. Flowers over, probably scarlet, in trusses of 3-6. The ovary resembles that of *R. chaetomallum*, but is completely hidden within the enormous crimson cupped calyx. Style and stigma much larger than those of *R. chaetomallum*, at once attracting attention. A solitary plant growing on a ledge of the granite cliffs, at 12,000 ft., amongst a thick scrub of *R. chaetomallum*, and half a dozen other species; but *R. chaetomallum* is the only obvious parent of this plant, so that it may be a mutation, or sport, and not a hybrid at all. Adung Valley, June, 1931.”

KW 9,704. *Rhod. brachyanthum*?

“A bushy undershrub, the foliage strongly and unpleasantly aromatic. Flowers small, yellowish, sometimes tinged with dull pink on the outside, in floppy trusses of 3-5. One of the last alpine species to bloom. It grows socially in scrub thickets on the granite cliffs. Dull, dowdy, and smelly. Adung Valley, 12,000-13,000 ft. 25/6/31.”

KW 9,710. *Rhod. sp.* (§ *Lapponicum*).

“Habit and foliage of No. 9,609, from which it is indistinguishable by botanical characters. The flowers, however, are a rich plum purple. It grows in the marsh with Nos. 9,609, 9,636, but is quite rare there, and I did not meet with it anywhere else. It is probably a colour variety of No. 9,609 and the other parent of No. 9,636. Adung Valley, June, 1931.”

KW 9,717. *Rhod.* sp. (§ *Saluenense*. = No. 9,517).

“A prostrate mat plant, moulding itself to the shape of the rock; occasionally in sheltered places it forms low tufts. Leaves minute, pale green beneath when young, buff when mature. Flowers bright magenta, borne singly or rarely in pairs, on erect pedicels. It grows on earth slides, and on granite cliffs, or precipitous turf slopes, at 13,000 ft., flowering in July. Though quite unlike *R. riparium* to look at, it is difficult to separate from that species by purely botanical character; it flowers on an average about a month later than *R. riparium*. Adung Valley. 1931. (This is the same as No. 7,523 from the Seingku Valley, a plant I did not see in bloom).”

KW 9,726. *Rhod. vesiculiferum*.

KW 9,735. *Rhod. pruniflorum*? (§ *Glaucum*).

"Like No. 9,704 in appearance, but less strongly scented, with purple flowers. It grows in clumps, amongst boulders in open parts of the *Abies* forest, surrounded by thickets of the 'Souliei,' No. 9,621. Apparently not common. A pale replica of Nos. 6,924, 7,188, from the Seinghku Valley, perhaps, and inferior to it. Adung Valley, 12,000 ft. 1/7/31."

KW 9,790. *Rhod. campylogynum*? (§ *Campylogynum*).

"A prostrate mat plant, the flowers standing stiffly erect, singly or in pairs, on long pedicels. Corolla fleshy, plum purple with a glaucous bloom, blood red by transmitted light; pollen cream-white. Young leaves waxy beneath; but the mature leaves lose both this waxy layer and their scales, being left practically glabrous. It grows scattered over the high alpine turf slopes, with *R. repens*, a dwarf form of *R. riparum* and the pink 'Cephalanthum' (No. 9,641). Adung Valley, 14,000 ft. 12/7/31."

KW 9,795. *Rhod. sp.* (§ Grande).

“ A small tree, scattered in the top-most Fir forest with the more abundant and gregarious *R. Beesianum*. Leaves long and narrow, with a silver pelt, bronze washed beneath. Truss 20-25 flowered ; probably blooms in May, but I did not see the flowers. It may be a form of *R. sidereum*, but 12,500 ft. is high for that species. Perhaps new. Adung Valley. 1931.”

KW 9,800. *Rhod. lepidotum.* (§ *Lepidotum*).

“ A twiggy undershrub, forming compact brooms on granite cliffs exposed to the south. Flowers borne singly, on short stiff pedicels, deep cerise, the upper lobe spotted darker ; by transmitted light they shine like rubies. A good colour variety, never inclined to the vulgar magenta of ordinary *R. lepidotum*. Just in bloom, flowering on into August. Adung Valley, 13,000 ft. 14/7/31.”

KW 9,810. *Rhod. sp.* (§ *Campylogynum*).

“An aromatic leafed undershrub, a foot high, forming brooms which are scattered amongst the thick low scrub on sheltered high alpine slopes.

Flowers erect on long pedicels, 2, 3, or occasionally 4 together, shooting up from the terminal leafy rosettes; bright cerise. Leaves waxy white beneath, starred with golden scales. Rare: found only in one snow-choked glen at 13,000 ft. and not abundant there. A charming rock shrub, and the most striking ‘*Campylogynum*’ I have seen. Adung Valley. 7/31.”

KW 9,815. *Rhod. campylogynum* var.? (§ *Campylogynum*).

“Same as No. 9,790. There are two forms of this species, one with almost black or dusky plum purple flowers, heavy with bloom, more or less opaque; and a much redder, less fleshy, port wine coloured form, which at first sight seems to approach No. 9,810; but there is no possibility of confusing the two when seen together. Gregarious, entirely prostrate or sprouting into small brooms amongst the rocks. Adung Valley, 13,000-14,000 ft. 16/7/31.”

KW 9,816. *Rhod. repens*. (§ *Neriiflorum*, *Forrestii*).

“ Similar to *R. repens* in habit, and growing with it on the turf-covered slabs at 14,000 ft. ; but the flowers are sulphur-coloured. Only three single-flowered plants seen. (A similar yellow-flowered form was found in the Seinghku Valley in 1926). Adung Valley. 16/7/31.”

KW 10,005. *Rhod. sp.* (§ *Lapponicum*).

“ A small gregarious scrub forming undershrub, in casual bloom. Flowers pale purple, very similar in other respects to those of No. 9,609. It covers a large area of open boggy pasture at 12,000 ft. on the Tibetan side of the range. Possibly the same as No. 9,710 ; it *may* be the other parent of No. 9,636. Tibet. 2/9/31.”

KW 10,012. *Rhod. sp.* (§ *Lacteum*).

"In fruit, flowers not seen. Old leaves with a bronze-brown pelt-like indumentum, which in the young leaves is pale green and spongy. At 13,000-14,000 ft. it forms a dense tanglement amongst the piled boulders; at 12,000 ft. it grows into a big gnarled shrub, mixing with other species in the *Abies* forest. Truss compact, about 10-flowered. Not seen in the Adung Valley. Probably the same as No. 6,954 from the Seinghku Valley, 1926. Tibet. 2/9/31."

KW 10,020. *Rhod. sp.* (§ *Heliolepis*).

"Not seen in flower. An intensely aromatic shrub, the young foliage polished above, though the glaze gradually wears off; scales of the under surface very pale, hardly noticeable, about a diameter apart. Scattered in the forest with other species, usually along the river bank, or on the crests of the spurs, at 10,000-11,000 ft. Possibly the same as No. (1926). Tibet. 3/9/31."

KW 10,121. *Rhod. sp.* (§ *Campylogynum*).

“Current year’s foliage of No. 9,810. Though extremely local, this species is fairly abundant, but has set very little seed. 13,000 ft. 8/10/31.”

KW 10,129. *Rhod. micromeres*.

“An epiphytic shrub of the middle rain forest, 8,000-10,000 ft. Fruits and foliage turn scarlet. Not seen in flower, but previously collected in Tibet and Assam. (See Nos. 6,848, 8,326), 10,000 ft. 21/10/31.”

KW 10,134. *Rhod. sp.* (§ *Haematodes*).

“A small tree, 15-20 ft. high, or a shrub ; sometimes stunted under the Bamboos. Not seen in bloom, truss 6-8 flowered. Leaves with tawny-orange tomentum, buff when young. Capsule short, curved, sticky with glandular hairs. It grows on the cliffs and lining the steep gullies on the more sheltered side of the valley where the snow lingers late. Abundant in thickets, amongst Bamboo. 10,000-11,000 ft. 23/10/31.”

KW 10,136. *Rhod. sp.* (§ *Maddeni*).

"A bushy undershrub, usually epiphytic. Flowers solitary, bright butter yellow, glossy outside. A single specimen growing on a boulder in the river bed. Adung Valley, 9,000 ft. 16/11/31."

KW 10,139. *Rhod. sp.* (§ *Brachyanthum*).

"Nos. 9,415, 9,490 in fruit and bud. The snow-white upturned capsules, 20-25 in number, and snow-white under-leaf surface make this tree, with its tattered red paper bark, outstanding. Commoner than I supposed, but thinly scattered through the *Picea-Rhododendron* forest between 7,500 and 8,500 ft. Nowhere abundant. 31/10/31."

KW 10,140. *Rhod. sp.* (§ *Thomsoni*).

"Flowers not seen, but this is probably the same as No. 9,383, or a variety. A large shrub or small tree, smooth barked, neither flaking nor stripping. Fruits squat, half enclosed in the large collar-like calyx. Scattered in open parts of the forest, and along the river bank, chiefly on the sunny side. 8,000-10,000 ft. 31/10/31."

KW 10,141. *Rhod. vaccinioides* ?

"Fruit of Nos. 9,399-9,440.
Common. 6,000-7,000 ft. 2/11/31."

KW 10,142. *Rhod. sp.* (§ *Boothii*).

"Flower buds of No. 9,221. 6,500
ft. 2/11/31."

KW 10,159. *Rhod. sp.* (§ *Thomsoni*).

"Flowers not seen : may be the
same as No. 9,634, or a colour
variety. A small tree, often stunted,
growing with *R. arizelum* and *R.*
crinigerum in *Abies* forest, on the
exposed ridges. 10,000-12,000 ft.
16/11/31."

KW 10,160. *Rhod. sp.* (§ *Thomsoni*).

"A small gnarled tree, a single
specimen found in fruit. Truss 4-5
flowered. Leaves with floccose rufous
hairs beneath, differing also in shape
from those of No. 10,159, the only
other species in the vicinity bearing
any resemblance to it. In dense
thickets on the exposed ridge. Adung
Valley, 10,000-11,000 ft. 16/11/31."

KW 10,161. *Rhododendron* sp. (§ Souliei).

“ A shrub or small tree, often gregarious. Truss 4-6 flowered. Found only in fruit. Apparently distinct from No. 9,500; it may be a yellow-flowered species like *R. telopeum* from the Seinghku Valley. 11,000-12,000 ft. 16/11/31.”

KW 10,175. *Rhod.* sp. (§ Maddeni). (*R. taronense* ?)

“ An epiphytic shrub, in full bloom in the high tree tops. Corollas picked up; white, with a pale yellow flame towards the base of the upper lobe. (In botanical characters it corresponds to No. 9,130. Nos. 9,130, 9,170, 9,252, 9,360, and 10,175 appear to be the same species). Nam Tamai Valley, 4,000 ft. 25/11/31.”

KW 10,180. *Rhod. sp.* § (Maddeni). (*R. taronense* ?)

“ A small bush, flowering periodically between November and April. Flowers white, with pinkish purple bands on the outside (often sufficient to give a rose flush to the corolla) and a yellow flame at the base inside ; fragrant. Growing in thickets on a large boulder in the river bed. Valley of the Nam Tamai, 3,000-4,000 ft. 29/11/31. (Identical with Nos. 9,130, 9,170, 9,252, 9,360 ; probably also with No. 10,175. Distinct from Nos. 9,361, 9,403 with which it might be confused).

TREES, SHRUBS

AND

HERBS,

1931.

KW 9,022. "A creeping plant with shining leaves and bright orange translucent berries. Flowers not seen. It forms a carpet on banks in the monsoon jungle at 2,000-3,000 ft."

KW 9,070. *Cypripedium* (*Paphiopedilum* ?).
"Meridian petal white, striped green, other petals and slipper more or less dark chocolate, spotted. Scape 6-9 ins. high. Leaves numerous, giving rise to one or two scapes. On granite outcrops, in shady but not moist places, where it gets some winter sunshine. In the rainy season the soil is clayey, in the dry season friable. Flowers November-January, at 4,000-5,000 ft."

- KW 9,073.** [Libiatae.]
 "An herbaceous perennial, about 18 ins. to 2 ft. high, erect, bearing long spikes of pale pink flowers. Grows in colonies in the deep shade of the forest, where it is kept moist even in the dry weather. A good winter-flowering greenhouse plant."

- KW 9,074.** Briggsia?
 An epiphyte with hanging racemes of yellow flowers, like a Chirita. Grows in the forest, in deep shade, at 4,000-5,000 ft. Flowers in winter.

- KW 9,077.** Begonia hymenophylloides.
 "A dwarf epiphyte with white flowers and beautiful frail leaves. It blooms in the perpetual midsummer rain mist at 6,000 ft. and practically shrivels up to nothing during the dry season. Found only on a few moss-clad tree trunks."

- KW 9,091.** Vaccinium.
 "In fruit. Berries milky blue. Leaves leathery, vellum white beneath. Young stems red. A small shrub, confined to open granite cliffs and slips, within the hill jungle, 4,000-5,000 ft."

KW 9,092. *Gentiana* (*Crawfurdia*).

"A voluminous twiner, bearing great numbers of rather large trumpet-like flowers, ranging from pinkish purple to almost white. Grows anywhere in the open (chiefly in secondary growth), outside the forest, between 3,000 and 5,000 ft. altitude."

KW 9,093. *Euonymus*.

"Flowers chocolate-red, fruits carmine. A shrub or small tree of the topmost hill jungle, where it grows in half shade at 6,000 ft."

KW 9,098. *Eriobotrya Wardii*?

"Often starts as an epiphyte, but grows to a big tree. Flowers cream coloured, fragrant, in large compound panicles, after the leaves have fallen, in October. Hill jungle, 6,000 ft."

KW 9,123.

[*Orchidaceae*.]

"An epiphyte of the hill jungle at 4,000-5,000 ft. It forms tufted bunches usually low down on the trunks of the trees. Flowers small, numerous, deep purple, in winter."

KW 9,133. Pleione.

“ Flowers rather large, pale purple with a yellow splash in the throat. An epiphyte of the hill jungle, not found below 6,000 ft. It blooms just after the rainy season, in November, over by December.”

KW 9,139.

“ A small erect undershrub of the hill jungle, 2,000-4,000 ft. In winter it bears short, compact spikes of shining vermilion berries. Flowers not seen.”

KW 9,143. Ilex.

“ A small tree. Remarkable only for its abundant fruits, which are at first purple, later changing to violet. Evergreen. Hill jungle, 4,000-6,000 ft.”

KW 9,150.

[Rubiaceae ?]

“ An erect undershrub with rather large bright blue berries, borne singly in the leaf axils ; flowers not seen. Grows in the depths of the forest at 4,000 ft. altitude.”

KW 9,161. Ardisia.

“ An erect undershrub, up to 3-4 ft. high. Leaves deep purple beneath. Berries scarlet in large, loose terminal clusters. In thick forest.”

KW 9,173. Kadsura ? or Schizandra ?

“ A big liana of the hill jungle up to 7,000 ft. Fruits crimson, about an inch in diameter, 20-30 in number, compressed into a large almost globular Pandanus-like head. Flowers not seen. Of botanical rather than horticultural interest.”

KW 9,182. Clematis.

“ A slender climber with bunches of small cream-coloured flowers. Altogether rather dainty. In thickets, up to 6,000-7,000 ft.”

KW 9,187.

“ An evergreen undershrub bearing orange-red berries. Common in the forest, 4,000-6,000 ft. February.”

KW 9,197. Vaccinium. (U. glauco-album ?)

“ A shrub, with large leathery leaves dark green above, snowy-white beneath. Flowers apparently cream, opening about September, followed by large bluish berries, thinly coated with wax. The large hanging bunches of grape-like fruits, which stay on the shrub till the spring, make the plant most attractive. Grows in thickets, and on the open mountain side, up to 6,500 ft.”

KW 9,198. Viburnum.

"An evergreen shrub. Flowers negligible. Berries small, steely blue, with a curious lustre, giving an effect of lalique. The winter contrast of red stems, dark green leaves, and bunches of gleaming opalescent fruits is charming. Found up to 7,000 ft., usually on open cliffs and ridges in full sun."

KW 9,205. Daphne ?

"A small fan-shaped evergreen under-shrub, now covered with bright scarlet berries ; later smothered with small fragrant white flowers. The berries are not eaten by birds. Grows in the forest, requiring deep shade and a rich leafy soil. 6,000-7,000 ft. February."

KW 9,206. Lonicera.

"A big scrambling twiner, with long drooping branches. Probably evergreen, the leaves turning vinous red in the winter. Flowers not seen. Berries jet black, polished. In thickets, warm, temperate rain forest region up to 7,000 ft."

KW 9,209. *Clematis* sp. nov. ?

"A huge climber, ascending to the tops of the highest trees, the stems as thick as a man's arm. Leaves large, ultimately simple. Flowers deep golden yellow, in November, at 7,000-8,000 ft. A wonderful plant."

KW 9,212. *Ilex*.

"A small shrub, bearing a vast crop of tiny scarlet berries. In thickets, warm temperate rain forest belt, 6,000 ft."

KW 9,213. ?

"An evergreen scrambler, trailing long stiff branches. Flowers cream, berries red, lasting through the winter. 6,000-7,000 ft."

KW 9,216. *Euonymus*.

"A small shrub of the warm, temperate rain forest. Flowers chocolate, fruits pinkish crimson, 6,000-7,000 ft. See No. 10,124 (= 9,592 ?)."

KW 9,218. *Acer*.

"A medium-sized deciduous tree. Fruits persistent, pendent, in racemes 6 ins. long. Scattered in the forest. 6,000-8,000 ft."

KW 9,223. Viburnum.

“ A small deciduous tree, flowering in May or June, bearing large drooping bunches of red currant-like fruits in November, after the leaves have fallen. The fruits hang on all the winter. The dark green rugose foliage is handsome. In thickets, 6,000-8,000 ft.”

KW 9,224. Porana.

“ A fast-growing twiner, flowers not seen, but freely borne, probably white. In open cultivated places chiefly in the lower valley, 4,000-5,000 ft.”

KW 9,225. [Cucurbitaceae].

“ A climber, the dead stems now supporting the almost spherical scarlet fruits, as large as an orange. Flesh of fruit bright scarlet (the outer skin sometimes streaked with yellow), seeds black, embedded in a dark and dull green glutinous pulp. In thickets and jungle, up to 4,000-5,000 ft.”

KW 9,242. Ilex.

“ A small tree, or a shrub, of the warm, temperate rain forest. Berries bright red. Leaves with long drip tips, larger and paler than those of No. 9,212.”

KW 9,244. *Vaccinium*.

"A shrub with long snaky branches, drooping. Leaves polished, with drip tips. Flowers greenish, not conspicuous. Fruits shining black. The most attractive feature is the foliage. In thickets, chiefly along the river bank, 6,000-7,000 ft."

KW 9,246. *Disporum* ?

"In fruit; berries bluish black. Flowers not seen. A shade plant of the scrub-covered slopes, amongst boulders. Height 2 ft. or less. Seen in one spot only, 6,000 ft."

KW 9,247. *Vitis*.

"A rather massive climber, attaining a great age, though of dwarf habit. Leaves 5-lobed, almost circular in outline, in a close mosaic; sometimes almost golden ('aureum'), but usually dark green. Whole plant cleaving closely to tree or rock, forming a close carpet. Berries black, in heads of 3-6, buried amongst the leaves. A charming evergreen, possibly just hardy, as it ascends to 7,000 ft."

KW 9,251.

[*Cucurbitaceae*].

"Same as No. 9,225 probably."

KW 9,253. *Ilex*.

"A small tree. Leaves rather large, harshly coriaceous. Berries large, bright red, in close terminal spikes. In the drier temperate rain forest at 8,000 ft.; rare."

KW 9,256. *Ilex*.

"A slim evergreen shrub or small tree. Berries scarlet, solitary, pendent on long pedicels. Common in the depths of the temperate rain forest at 8,000 ft."

KW 9,262. ?

"An evergreen undershrub, forming colonies in the temperate rain forest at 7,000-8,000 ft. Flowers cream, fragrant, February-March. Fruit a bluish-violet berry."

KW 9,276. *Photinia* ?

"A bushy evergreen shrub, the leaves finally turning scarlet before falling. Flowers cream with purple anthers, fragrant, in massive panicles. Young foliage, bright red. In thickets along the river bank."

KW 9,302. *Pieris*.

"An evergreen shrub. Leaves leathery, dark green and glossy. Flowers poor. In thickets, 6,000-8,000 ft."

KW 9,305. *Gaultheria*.

"A thin shrub as much as 12 ft. high, bearing clusters of small, bright blue berries, in short spikes. The whole shrub is smothered with berries. On steep rocky faces on the sheltered side of the valley where the forest has nevertheless been burnt. The *Gaultheria* has practically taken possession here and there, at 8,000 ft."

KW 9,314. *Prunus*. ("Carminé Cherry.")

"A tall tree, scattered in the forest up to 7,000-8,000 ft. on the sheltered side of the valley. Flowers opening about mid-March, precocious, fascicled. Buds carmine, opening deep rose, on long pedicels, the flowers drooping. Leaves appearing about May or June. The gorgeous colour of the crowded flowers is a never-to-be-forgotten sight."

KW 9,315. *Pyrus*. ("Goldbeam.")

Alike in spring foliage and in bloom—the flowers appearing immediately after the leaves, this small tree is charming. The young leaves are pale silvery green, covered with a thin skein of golden cottony hairs, which glisten in the sunlight. Flowers cream, fragrant, in ample panicles, opening near the end of March. 6,000-8,000 ft."

KW 9,324. *Berberis* (near *B. pruinosa*).

"A handsome shrub, sometimes almost a small tree. Leaves holly-like, silver beneath. Flowers bright yellow, in large bunches; fruits purple. A good bush in full bloom in March is a fine sight, the serried ranks of brilliant flowers, borne on red pedicels, contrasting with the green and silver foliage. In thickets on the edge of the forest, 8,000 ft."

KW 9,327. *Euonymus*.

"A small evergreen tree with wide-spread branches. Fruits (and seeds) persistent, pinkish, on long pedicels, the seeds almost scarlet. Flowers not seen. In open forest on the dry side of the valley. Seeds collected in March."

KW 9,331. *Ilex*.

"A small tree of the temperate rain forest, almost overwhelmed with red berries in long axillary clusters. Leaves dull, paler beneath."

KW 9,349.

"Same as 9,205. Flowers in April, while the scarlet fruits are still on the shrub. 6,000 ft."

KW 9,350. *Vaccinium*.

"A large shrub. Flowers milk white in drooping racemes. Young foliage salmon pink to vivid scarlet, also drooping. Berries first red, later black. In thickets and on exposed ridges, up to 8,000 ft."

KW 9,357. *Iris*.

KW 9,358. *Berberis* sp. nov.? (Near *B. insignis* and *B. hypokerina*).

"A large, rather straggling shrub. Flowers large, brilliant yellow, in uncommonly big fascicles. The older leaves turn scarlet as in *B. hypokerina*, but are not silvered below. Fruits dark violet. In thickets, amongst Bamboo, on precipitous rock faces and cliffs, more or less exposed, but sometimes in deep shade."

KW 9,362. *Celastrus Loesnerii* ?

“ A big twiner with dull green flowers and orange seeds showing inside yellow capsules. 6,000-7,000 ft.”

KW 9,372. *Ilex*.

“ Probably : 9,242. At 8,000 ft. A small tree of the temperate rain forest. Crammed with scarlet berries in April.”

KW 9,376. *Euonymus*.

“ A slim shrub 12 ft. high, bearing showers of tiny chocolate-coloured flowers in April. In thickets along the river bank, at 6,000 ft. There is a purple-leafed variety.”

KW 9,388. (*Saxifragaceæ*?)

“ A big evergreen climber not yet in bloom. Flowers borne in large panicles. Grows on any tree big enough to support it, mainly in the damp forest zone. 6,000-7,000 ft. Leaves large, glabrous and shining.”

KW 9,395. *Mahonia calamicaulis*.

"A winter-flowering species, growing 15 ft. high in the forest. The densely packed yellow spikes are produced 8 or 12 at a time, in November; plants may also be found in flower in April. 6,000-8,000 ft."

KW 9,398. *Prunus*.

"An evergreen bushy shrub, with long spikes of frothy cream flowers, fragrant. In the forest, or along the edge of the forest, up to 8,000 ft."

KW 9,418. *Begonia*.

"Flowers pink, leaves large, handsome. Grows on rock faces in the more temperate rain forest, but is probably not hardy."

KW 9,447. *Salix*.

"A moderate-sized tree, growing on the river bank up to 7,500 ft. altitude. Leaves blue-grey beneath. Remarkable for the ♂ catkins, which are as much as 7 ins. long, lolling erect, and bright yellow. (Cuttings only secured)."

KW 9,448.

"A big scrambler with long snaky branches trailing to the ground. Flowers cream, fragrant, in numerous short spikes from the fascicled ever-green leaves. In thickets, mainly along the river bank, 6,000-7,000 ft."

KW 9,471. Tamarix.

"Flowers deep purple in long erect spikes. Foliage silvery sea-green, turning purple in the autumn. At 13,000-14,000 ft. it forms prostrate mats on the gravel, at 11,000-12,000 ft. it forms dense thickets 2-3 ft. high."

KW 9,473. Pyrus.

"A small tree, scattered in mixed forest and along the river bank. Flowers in small corymbs, white, Hawthorn scented. Probably a variety of 'Goldbeam' No. 9,315."

KW 9,474. Iris.

"A rhizomatous species, 12-18 ins. high. Stems with 1-3 flowers, not seen. On the banks of streams in the mixed forest belt, 8,000-9,000 ft. Scattered, rare."

KW 9,494. *Primula* sp. nov. ? § *Obconica*.

“Flowers light purplish pink, the whole plant delicately fragrant. It grows on rocks and gravel banks in the open forest, flowering April-May. Though ascending to 8,000 ft., it is certainly not hardy. A delightful house plant on account of its fragrance.”

KW 9,511. *Acer*.

KW 9,515. *Vaccinium*.

=9,554. “Flowers pink, in fat drooping spikes. Fruits glaucous violet. Leaves polished. An undershrub, growing in mixed scrub, on steep slopes, up to 12,000 ft. June.”

KW 9,525. *Pyrus* (Crab).

“A small tree with fragrant white flowers having red anthers. 7,000-8,000 ft.”

KW 9,551. *Nomocharis pardanthina*, var ?

“A fine form, attaining 4 ft., bearing 8 or 10 blooms (usually 3 or 4), which open in June. Along the banks of streams, and on earth fans, 9,000 ft.”

KW 9,571. Clethra.

“A large bushy shrub, with big soft leaves, glossy beneath. Flowers not seen. Fruiting spikes 6 ins. long, lolling out from amongst the leaves, the bracts and calyx red. Common along the river bank up to 9,000 ft. but not found inside the forest. A handsome (evergreen?) shrub, which should be a fine sight in full bloom, late June.”

KW 9,580. Arisaema.

“Spathe green and brown beautifully marked like an Anthurium leaf. In mixed forest, 8,000 ft. June.”

KW 9,587. Ilex.

“A small slender tree up to 12 or 15 ft. high, with small dull green leaves and pale chocolate flowers, solitary. Berries scarlet, on long pedicels. Young foliage wine purple, appearing with or ahead of the flowers, in June. The berries ripen in November, and persist throughout the winter. In mixed forest, 8,000 ft.”

KW 9,592. Euonymus.

"A small forest shrub, 6-8 ft. high. Flowers large, dangling, velvety maroon with white edge. Fruits crimson. 9,000 ft."

KW 9,595. Acer.

"A small tree, much stunted at 12,000 ft., where it forms thickets with *Betula*, etc., on boulder heaps. Flowers reddish in bud opening green, in short erect pyramidal spikes or panicles. Fruits pendent in close clusters, the wings set at an angle of 180 degrees. Leaves 7 pointed."

KW 9,604. Prunus. (Cherry).

"A small tree. Flowers white, in pairs, June; fruits dark crimson, in October. Open places in the mixed forest, 12,000 ft."

KW 9,607. Salix.

"An undershrub, gregarious, the stems creeping over gravel fans, or boulders, up to 13,000 ft. Flowers appearing before the leaves are fully developed, in June. Female spikes 6 ins. high. One of the best of the dwarf species."

KW 9,610. (Scrophulariaceae ?)

KW 9,613. Cotoneaster.

“ A small spreading shrub, scattered through dense Rhododendron and mixed scrub, on broken granite cliffs, 12,000 ft. Flowers maroon. Leaves silky. Fruits large, barrel-shaped, sealing-wax red ; birds do not touch the berries which consequently remain on the shrub till the following June.”

KW 9,615. Caragana.

“ A slow growing prostrate under-shrub, sprawling discreetly over boulders, or on screes at 13,000 ft. Flowers large bright yellow, nestling down amongst the small silken leaves and pungent prickles which closely invest the stunted branching stems.”

KW 9,622. Pyrus.

“ A fair-sized handsome deciduous tree of the upper mixed forest, 10,000-11,000 ft. Flowers cream, fragrant, in stately candle-like spikes, erect or drooping, appearing in June.”

KW 9,624. Ilex.

“ Forms compact mats, the flowering stems shortly ascending or erect, not exceeding 6 in. Flowers negligible. Berries scarlet, persistent. Leaves very small, matt green. Beneath Rhododendron bushes, in the upper Abies forest. One of the most fascinating of the alpine hollies.”

KW 9,626. Ilex.

“ A bushy undershrub, 2-4 ft. high, occurring in clumps in the Rhododendron forest at 10,000-11,000 ft. The leaves are larger and more polished than those of No. 9,624 but otherwise, apart from a difference of habit, the two are very much alike.”

KW 9,632. Morina.

“ Flowers purple. Forms rosette growths, the stems erect or ascending, numerous, 6-10 ins. tall. In pastures, and on open scrub-clad slopes, 12,000-14,000 ft. June, July.”

KW 9,639. Gaultheria.

“ A prostrate plant with thread-like stems, the white or ruddy flowers borne sparingly on erect shoots an inch high or less. Berries large, snow-white and glistening; sometimes flushed pink. Grows only on open alpine grass or earth slopes, which in October are beautifully decorated with the fruits, 12,000-13,000 ft.”

KW 9,640. Viburnum Wardii.

“ Dwarf form, 1-3 ft. high. A widely branching shrub, forming much of the undergrowth, especially in open glades, of the topmost *Abies* forest. Scattered also in the *Rhododendron* scrub, up to 13,000 ft. The leaves turn gorgeous colours in September-October, when the fruits are ripening. Flowers in June. Birds are much attracted to the berries.”

KW 9,645. Anemone § Narcissiflora.

“ Flowers moon white, large. Whole plant silvery with long hairs. Very abundant on alpine grass slopes, 13,000 ft. June and July.”

KW 9,653. *Pyrus* (*Sorbus*).

“ A dwarf undershrub, with shortly erect shoots, and highly polished leaves. Flowers pink, in small heads. Berries large, snow-white, with pink crown. In dense scrub thickets, on cliffs (granite), and on steep broken rock faces, 12,000-13,000 ft.”

KW 9,655. *Primula vernicosa*.

“ By streams in *Abies* forest. Also on alpine turf slopes, up to 14,000 ft. Of no horticultural merit.”

KW 9,661. *Nomocharis Souliei*.

“ Flowers solitary (occasionally two), nodding, opening almost black, glossy, really deep port wine coloured, very fragrant. Stems vary from about 3 ins. to 9 ins. high, according to altitude. This species grows in open meadows in sticky soil; gregarious, forming huge colonies on exposed slopes at 13,000 ft. June and July.”

KW 9,662. *Vaccinium*.

"An undershrub with beautiful foliage, turning various hues of wine-purple in spring and autumn. Flowers large and solitary, like pink Chinese lanterns, in June and July, followed in October by glaucous blue berries. Grows in colonies on steep alpine turf slopes at 13,000 ft."

KW 9,663. *Pyrus* (*Sorbus*).

"A small tree, or above 12,000 ft. a shrub. Flowers white in large corymbs, strongly scented, opening in June. Leaves rather large, dark green and polished above, tawny tomentose beneath; leaflets about 12 pairs. Berries pinkish, not particularly attractive to birds."

KW 9,671. *Primula melanodonta*.

"Flowers a pleasant yellow. Height 6 ins. Gregarious at 12,000 ft. Grow as a bog plant in the open."

KW 9,680. *Cypripedium*.

"Flowers rather large, dull purple, finely striped, the column bright yellow. Height 6 ins. On sunny slopes, amongst rocks and scrub. June, July."

KW 9,684. *Rubus*.

"A delicate carpeting species. Flowers white, nodding, fruits red, edible. Under the Fir trees, 12,000 ft."

KW 9,686. *Nomocharis nana*, var. ?

"Height 6-9 ins. Flowers solitary, nodding, slightly fragrant; either yellow, speckled or purplish, speckled, (No. 9,675), the latter much the rarer. Grows with *N. Souliei*, scattered in meadows, or on the high alpine turf slopes, 13,000-14,000 ft."

KW 9,690. *Primula chamaethauma*.

"A large plant, bearing big heads of mauve-violet flowers with yellow eye. On wet alpine slopes, 14,000 ft."

KW 9,691. *Potentilla*.

"Flowers small, deep maroon red. The plant forms large leafy cushion-like rosettes in alpine pastures, 13,000 ft."

KW 9,698. *Omphalogramma Souliei*.

"Flowers large, appearing before the leaves. Height in bloom 3-6 ins. On alpine turf slopes, 14,000 ft. June."

KW 9,699 (or KW 9,707?) Pedicularis.

“ Flowers brilliant crimson. Height 2-3 ins. On alpine earth or turf slopes, 12,000-14,000 ft. June, July.”

KW 9,700. Aster.

“ A dwarf gregarious plant, 1-2 ins. high, bearing a single head. Ray-mauve, rather ragged, disc yellow. Height in fruit 3-4 ins. On stony ground in alpine pastures, 12,000 ft. In mass an effective rock plant.”

KW 9,712. Iris.

“ A rhizomatous violet-flowered beardless bog Iris. Grows also on alpine turf slopes up to 14,000 ft. and in snow-choked gullies down to 11,000 ft. June to September.”

KW 9,714. Sedum.

“ A meadow plant, height 9-12 ins. Beautiful in fruit, the flattened heads turning a rich glossy crimson, the colour lasting a month, 12,000 ft.”

KW 9,724. Sedum.

“ A dwarf, 2-3 ins. high, forming small close colonies on screes and turf slopes. Leaves fleshy. Flowers in small maroon corymbs ; turning black-lead colour in fruit, 12,000-14,000 ft. July.”

KW 9,726. *Pyrus*. (*Sorbus*).

"A small tree. Flowers maroon, in bunches at the end of a long peduncle ; the fruits rose. Leaflets about 12 pairs. Scattered in the Fir forest at 12,000 ft. and ascending, stunted, into the alpine valleys. The fruits stay on all the winter, though birds eat the seeds."

KW 9,729. *Rheum*.

"A tall, heavily built perennial herb, 4 ft. high. In fruit the virgate spires of dull red dangling beads, rising from the rosette of large reddening leaves make an attractive display. Sorts well with the yellow-flowered *Corydalis* No. 9,837. Alpine region, 12,000-14,000 ft. September."

KW 9,731. *Omphalogramma Souliei*, var. *minor*.

"This form is quite good, having the same rich violet flowers as the type. Height in flower, 1-3 ins. July. There is probably seed of *O. Souliei* (type) mixed with var. *minor* here."

KW 9,733. *Primula cyanantha* ?

"Corolla dark purple, whitened inside with meal. Height 6-9 ins. Scattered in high meadow, especially on earth fans, under the shadow of the bushes, 12,000-13,000 ft."

KW 9,741. *Habenaria* ?

“ Flowers cream, in boggy meadows, deep rose, on earth fans a thousand ft. higher up : richly fragrant. July, 12,000-13,000 ft.”

KW 9,744. (*Valerianaceae* ?)

“ A small herb, scarcely 6 ins. high, bearing a large corymb of bright yellow very fragrant flowers. On open earth slopes, 12,000 ft. In autumn, this plant has a most disagreeable and penetrating odour, and should be uprooted.”

KW 9,756. *Potentilla*.

“ A mat or cushion-forming plant, with bright green foliage and white flowers. The seeds germinate in situ, after the melting of the snow. It grows on the rocks and boulders at 14,000 ft.”

KW 9,760. *Euphorbia*.

“ A dwarf alpine rosette which turns bright crimson in the autumn.”

KW 9,771. *Geranium*.

“ A dwarf creeping plant, with orbicular leaves and large purple flowers borne in pairs. The leaves turn scarlet in the autumn. It forms a film over stony ground, at 12,000-13,000 ft.”

KW 9,780. *Meconopsis* sp. nov. ? § *Aculeatae*.

"A prickly Poppy with sky-blue fragrant flowers and entire leaves. Scape 2-2½ ft. high, bearing from 6 to 10 flowers on short pedicels. Alpine turf slopes and by streams, 13,000-14,000 ft. July, August."

KW 9,797. *Thalictrum*.

"Flowers small, numerous, fluffy and cream-coloured. Foliage often glaucous. In the shade of the forest this species may grow 6-8 ft. tall, but in the open alpine meadow it scarcely exceeds 1-2 ft. At home everywhere, 10,000-14,000 ft. It grows most luxuriantly by streams in the *Abies* forest, in shade."

KW 9,801. *Pyrola*.

"Flowers gleaming milk-white in a short close spike. Height 6 ins. Leaves leathery, circular. In small colonies, from the forest at 8,000 ft. to the alpine scrub at 12,000 ft. June and July."

KW 9,807. *Cotoneaster*.

- KW 9,811. *Primula* sp. nov. ? (§ *Amethystina* ?)
 “ Height 1-2 ins. Flowers solitary or, occasionally in pairs : 1-1 $\frac{3}{4}$ ins. across, purple, mauve, or violet, with large yellow eye It grows on steep sodden alpine slopes, mud or sand, which are in cold storage till July. Abundant but local, 10,000-14,000 ft. July.”
- KW 9,812. *Primula serratifolia*.
 “ At higher altitudes than *P. melanodonta*, flowering in July.”
- KW 9,819. *Delphinium*.
 “ A very hairy plant, with deep violet flowers and large rounded leaves. Height 1 ft. In meadows, 12,000 ft. July. The foliage, almost white beneath, and three or four comparatively large flowers make a good combination.”
- KW 9,820. *Pedicularis*.
 “ Flowers bright crimson. Height 3-6 ins. Alpine earth fans and turf slopes. Same as No. 9,699 ? ”

KW 9,825. Aster.

"A thick tufted bushy shrub, Height 2-4 ft. Flowers small, in ample corymbs, mauve to purple. The best colour forms are good, but not sensational. On boulder fans, in thickets, 11,000-13,000 ft. July, August."

KW 9,828. Aster.

"Like No. 9,700, but taller, with larger flowers. Probably a variety. July."

KW 9,832. Gentiana ("Ocean Star.")

"A small annual of rosette habit, the comparatively large sapphire-blue flowers borne singly on radiating stems. Sometimes 20-25 flowers on a plant. Open stony ground, earth slides, pastures, alpine region, 11,000-13,000 ft. July to September."

KW 9,836. Corydalis.

"Flowers mauve and white, in long spikes. Foliage glaucous. A tall straggling herb, supporting itself in the scrub growth, and attaining 6 ft. Apparently very rare, and rather charming. Grow in herbaceous border. 12,000 ft. August, September."

KW 9,837. Corydalis.

“Flowers fragrant, in long yellow spikes. Height 3-6 ft. according to situation. Grows in alpine meadows, and by streams in the topmost forest, where the foliage takes on a glaucous tint, 12,000 ft. August.”

KW 9,839. Saxifraga.

“A stocky plant with fleshy leaves and bright yellow flowers borne singly on short leafy stems. On rocks and in crevices of granite cliffs, 13,000 ft. July, August.”

KW 9,840. Saxifraga. § Hirculus.

“A small meadow plant bearing a multitude of yellow, orange-spotted starry flowers. Height 6-10 ins. Good of its kind, and probably easy to grow, 12,000 ft. August.”

KW 9,841. Saxifraga.

“A tufted scree plant, the yellow-orange spotted flowers carried on separate leafy stems, 12,000-13,000 ft. July to September.”

KW 9,847. *Gentiana phyllocalyx*?

“ Flowers solitary, erect like those of *G. acaulis*. Prussian-blue outside, paler within. Height 2-4 ins., stem leafy. There are probably two varieties (or even two species) under this number. Scattered on alpine turf slopes, amongst patches of scrub, often in colonies. Annual. 13,000-14,000 ft. July, August.”

KW 9,860. *Primula* sp. nov. ? (or *P. muscoides* ?)
§ Bella.

“ A thin mat forming plant, with small purple flowers, sessile amongst the leaves. One of the highest alpiners, growing on granite rocks and gravel patches at 14,000 ft. An interesting species, but not in the first rank. August.”

KW 9,862. *Saxifraga*.

“ Flowers large, golden yellow with red calyx, secund, solitary on leafy stems 1-2 ins. high ; the leaves closely imbricating. Forms small clumps, on grassy ledges of the slate cliffs at 14,000 ft. The best of the alpine *Saxifrages*. August.”

KW 9,865. *Gentiana filistyla* ? (or *tubiflora* ?)

“ A mat plant, bearing two or three sessile semi-erect or almost prostrate narrow trumpet-shaped flowers, brilliant blue, unspotted within, darker outside. Widely scattered rarely forming small colonies, on precipitous alpine turf slopes at 14,000 ft. Though small, one of the most vivid alpine Gentians. July, August.”

KW 9,866. *Primula* sp. nov. ? (or *P. congestifolia*? § *Dryadifolia*.

“ A compact mat-forming plant, studded with pale pinkish purple flowers which nestle amongst the curled and closely packed leaves. It grows on bare granite rocks at high altitudes, up to nearly 15,000 ft., often associated with No. 9,860. Interesting, but not in the first rank and probably intractable. July, August.”

KW 9,871. *Aster*.

“ A stickily-haired aromatic plant, forming clumps in open pastures, often in boggy ground. Flowers mauve, yellow centres, very regular. Height 1 ft. One of the best of the alpine Asters. 12,000 ft. August.”

KW 9,885. Gaultheria.

" A creeping plant with thread-like stems, minute leaves and inconspicuous flowers, followed in August by large vermilion berries which last far into October. These vermilion fruits, half-sunk in the beds of green moss which carpet the Abies forest, are striking. It grows only in the depths of the topmost forest at 11,000-13,000 ft."

KW 9,886. Codonopsis.

" A twiner, or semi-erect plant with dull yellow tubular flowers; smelly. No class; collected in order to ascertain whether the cold storage seeds would germinate promptly. Meadows, 12,000-13,000 ft. July, August."

KW 9,887. Gentiana grata.

" A frail annual, 1 inch high, each stem with a single nodding white flower, stained and spotted pale blue-violet. Petals fringed with long lashes. Steep alpine turf slopes, 13,000-14,000 ft. July, August."

KW 9,889. Pedicularis.

“Flowers striped dull crimson in short leafy heads. Height 6-12 ins. Plants scattered on alpine slopes, 12,000-14,000 ft. Bizarre rather than pretty. August.”

KW 9,891. Cyananthus lobatus, var. ?

“The large-flowered ramping Tibetan form, but the flowers are a brighter, more periwinkle blue than those of the original, not so violet. A splendid rock plant, smothered in bloom in late summer. Open places in the alps everywhere, 11,000-14,000 ft. August, September.”

KW 9,895. Aster.

“The long-rayed slightly ragged-looking flower heads, borne on stems 12-15 ins. tall, are very attractive. The disc florets are purple in bud, opening deep yellow. Forms small sheaves in the alpine meadows, or single stems. The best of the Asters, 11,000-12,000 ft. August, September.”

KW 9,898. Saxifraga = No. 9,839 q. v.

KW 9,909. *Gaultheria*.

“Stems thread-like, prostrate, forming a wide meshed mat. Young shoots erect, scarlet or crimson, appearing with the large blue berries in August. Grows in the forest with No. 9,885, at 12,000 ft. or on the open alpine earth slopes with No. 9,639, at 13,000-14,000 ft.”

KW 9,910.

“A sweetly fragrant bog orchid, about an inch high, the small flowers in a close spike. Remarkable chiefly for its scent, but worth growing for that. 12,000 ft. August.”

KW 9,920. *Pedicularis* (“Sulphur Rattle.”).

“Flowering stems ascending, 6 ins. high. The large sulphur-yellow boat-shaped lower petal encloses the small purple upper petal. Tube elongated. On alpine turf slopes, amongst scrub, 13,000-14,000 ft. Rare. Perhaps the most handsome species of all. August.”

KW 9,923. *Lilium hyacinthinum*.

“Height 4-6 ft., bearing 20-30 drooping purple flowers in a leafy spike. Alpine meadows, 12,000-13,000 ft. August.” (Bulbils and seeds).

KW 9,924. *Cyananthus* sp. nov. ?

"A silvery-haired mat plant with bright powder-blue flowers. On sunny earth banks at 13,000 ft. September, October."

KW 9,926. *Cremanthodium* ("Scented *Cremanthodium*.")

"Flowers nodding, yellow. Leaves large, like shiny green leather. Whole plant faintly but permanently aromatic, the fruits especially, the fragrance persistent after drying. Height 6-9 ins. The best rock garden species I have seen. Alpine pastures and turf slopes, 13,000 ft. August."

KW 9,927. *Gentiana*.

"A spreading mat alpine. Flowers in tight heads at the ends of short ascending shoots ; pale yellow, speckled violet. On alpine turf slopes, 14,000 ft. August."

KW 9,934. *Aster*.

KW 9,947. *Gentiana*.

KW 9,950. *Aconitum*.

"Flowers purple. Height 2-3 ft. In alpine meadows, 2,000-3,000 ft. August, September."

KW 9,952. *Aconitum*.

KW 9,962. *Arenaria* ?

“ Flowers white or tinged pink, variable in size. An herbaceous perennial, with an immense root system to anchor it to the sliding sandy slopes and to draw water from deep down. In full exposure, 12,000-13,000 ft. August.”

KW 9,979. *Gentiana Wardii* (“ Blue Bubble ”).

“ The packed leaves form small mats from which the small erect, pointed blue cups rise directly. Corolla sea-blue, vignetted to white at the extreme base, persisting round the ripening fruit. Sometimes half a dozen flowers together, but the plants are usually scattered over patches of gravel, at 14,000 ft. Not common. One of the most lovely dwarf Gentians.”

KW 9,980. *Gentiana phyllocalyx* ?

“ Seed of this is mixed with No. 9,847, of which it may be only a variety. The two are often associated, but No. 9,980 is smaller, with paler flowers. 14,000 ft. August.”

KW 9,985. *Euphorbia*.

"Rootstock large and branched, very hard, sending up a close clump of leafy stems, a foot high. Flower heads ample. The leaves turn a gorgeous yellow, then scarlet, in October. On sheltered scrub-clad alpine slopes, 13,000 ft."

KW 9,996. *Bartsia* ?

"Flowers not seen. A small erect herb, scattered on alpine turf slopes, 11,000-12,000 ft."

KW 10,000. *Gentiana gilvostriata*.

"A spreading mat plant with closely imbricating leaves. Flowers large, like squat trumpets, the lobes recurved; brilliant sapphire-blue, finely speckled with darker blue. The mats form large colonies on sunny gravel and sand chutes, and the crowded flowers make a magnificent display in the October sunshine. 12,000-13,000 ft."

KW 10,002. *Primula sonchifolia* ?

"Flowers not seen. Leaves large, like those of *P. sonchifolia*; it forms resting buds like that species. In *Abies-Rhododendron* forest, 12,000 ft."

KW 10,004. Gentiana.

"Flowers a pale, rather washy blue, in tight leafy heads. A spreading plant, the stems ascending or shortly erect. Quite pretty in mass. In open places, and under Rhododendron bushes, in the sub-alpine belt, 11,000-12,000 ft. September."

KW 10,008. Berberis.

"A shrub, stems black, leaves pale glaucous, fruits scarlet. The leaves take on various autumn colours. Flowers probably yellow. In thickets at 11,000-12,000 ft."

KW 10,011. Rubus.

"A dwarf creeping plant, carpeting the Abies forest at 10,000-11,000 ft. It overlaps No. 9,684. Flowers white, fruits red. July."

KW 10,014. Nomocharis Souliei ?

"Flowers not seen. Probably the same as No. 9,661. (From the Tibetan side)."

KW 10,015. Syringa (Lilac).

"A large shrub, in thickets, scattered along the edge of the Fir forest, in open meadow, flowers not seen ; fruits in ample panicles, 11,000 ft."

KW 10,016. *Prunus*.

"A small tree, deciduous, bearing long fruiting spikes, more or less pendent. Fruits small, cherry red, ripe in October and much sought after by birds. In the mixed Conifer forest belt, 10,000-11,000 ft."

KW 10,021. *Nomocharis nana* ?

"Flowers not seen. Probably the same as No. 9,686. (From the Tibetan side)."

KW 10,025. *Aster fuscescens* ?

"A many-headed Aster, the flowers small, but numerous, of a good purple. Height 2-3 ft. In alpine meadows."

KW 10,026. *Allium*.

"The foot high stem ends in a shower of purple drops; which inflorescence and the protruding style, recalls a Dodecatheon. The most arresting of the several *Alliums*. Meadows, 11,000 ft. August, September."

KW 10,030. *Delphinium yunnanense* ?

" A tall, waxen stemmed branching plant, with smooth green foliage and brilliant deep azure blue flowers. Prone to a fungus disease which twists the stems, otherwise superb. Meadows, 11,000 ft. August, September."

KW 10,031. *Trollius yunnanense* ?

" A fine globe flower, height 1-2 ft. Sometimes 8-10 flowers on a plant. Meadows, 11,000-12,000 ft. August, September."

KW 10,032. *Parnassia*.

Height 6 ins. Flowers ivory white, in late summer. Open turf meadows.

KW 10,040. *Primula likiangensis* ? § *Geranioides*.

" Flowers not seen, but in foliage and fruit it recalls *P. lichiangensis*. On dry rocky outcrops and cliffs, half-shaded in the *Abies* forest, 10,000-11,000 ft."

KW 10,065. *Aquilegia*.

" Flowers not seen. Height 2-3 ft. In mixed forest, 11,000 ft."

KW 10,072. *Cypripedium* ?

“ Flowers not seen, borne singly on the scape which is 3 ins. high. On rock outcrops in the mixed forest, 11,000 ft. Rare. The flowers are apparently large, at least for the size of the plant.”

KW 10,083. *Acer*.

“ A small tree in fruit, deciduous : one of the first to colour, in September, the flowers not seen, in long pendent racemes, fruits pink, leaves fiery orange. In mixed forest, 10,000-11,000 ft.”

KW 10,090. *Primula cyanantha* ? § *Muscarioides*.

“ Flowers not seen, but probably identical with No. 9,733, though here growing in the shade of the forest, at 12,000 ft. (From the Tibetan side).”

KW 10,091. *Acer*.

“ A fairly big forest tree, deciduous. Leaves large, palmate, fruits in big hanging bunches. In mixed forest, 10,000-11,000 ft.”

KW 10,101. *Gentiana Veitchiorum* ?

"A magnificent 'Ornata' Gentian, the big trumpet flowers varying almost from Oxford to Cambridge blue. It grows in clumps, the flowers half-raised, in open pastures, boggy or not, 12,000 ft. September."

KW 10,102. *Aconitum*.

"A meadow plant, height 2-3 ft. Flowers not seen, in a tall spike. Open places, 12,000-13,000 ft."

KW 10,111. *Lychnis* ?

"A tufted 'Bladder Campion,' the striped calyx much inflated, persistent. Height 6-10 ins. On alpine turf slopes, 13,000-14,000 ft. September."

KW 10,118. *Epilobium*.

"A dwarf plant, hardly a foot high, growing in tufts in the granite gravel. Flowers large, lurid purple in generous measure, 12,000-13,000 ft. August."

KW 10,119. *Aconitum*.

"Flowers not seen, in tight heads. Height 12-18 ins. Meadows, 12,000 ft."

KW 10,124. Euonymus.

" Same as No. 9,592, but there is probably more than one species under this number."

KW 10,125.

" Flowers bright gamboge, in June. A small spreading herb, thin leafed, growing in a colony beneath a huge rock, and therefore in deep shade. The only clump seen. 11,000 ft."

KW 10,126. Schima.

" A fair-sized tree, scattered in the forest up to 7,000-8,000 ft. Flowers large, cream, September-November."

KW 10,130. Gaultheria.

" A small gregarious plant, with erect shoots, and stiff needle-like leaves. Berries small, very dark violet-blue, dangling by short pedicels. On bare earth slopes, 10,000-11,000 ft."

KW 10,132. Enkianthus. (" Cherry Enkianthus".)

" A small shrub, with solitary maroon red flowers. Leaves scarlet in October. It occurs in dense thickets, on cliffs facing south or west. Found at 10,000 ft."

KW 10,145. Aster ?

"A bushy more or less herbaceous perennial, up to 2½ ft. high. It bears ample corymbs of small flowers, variable in shade, usually mauve-purple, blooming throughout November, in the open. Grows rankly amongst the high grass and secondary growth where it gets plenty of sun."

KW 10,146. Gentiana (Crawfurdia).

"A small twiner, growing in thickets. Flowers violet, in broad bands, alternate light and dark. Ascends to 8,000 ft., but is probably not hardy."

KW 10,149. Clethra.

"A small tree or shrub. Flowers not seen, probably appearing in June. In open forest, 6,000-7,000 ft."

KW 10,152. Euonymus.

"Same as No. 9,376, *q.v.*"

KW 10,154. Buddleia.

"A bushy shrub with large leaves. Flowers not seen, apparently copious. On barren cliffs, rather rare, 9,000 ft."

KW 10,158. (Lauraceae).

"A big deciduous forest tree. Large winter buds are formed. Fruits in long stiff pendent spikes, ripening and dropping in October-November. Flowers yellow, appearing in April, before the leaves, 6,000-8,000 ft."

KW 10,164. *Hemerocallis* ?

"An herbaceous perennial about 4 ft. high. Grows amongst the high grass and bracken on the edge of the forest. Apparently rare. Flowers not seen, 6,000 ft."

KW 10,171.

"An undershrub, growing gregariously in the temperate forest, at 8,000 ft. Flowers unseen. Berries black, in ample spikes. 8,000 ft."

KW 10,174. *Acer*.

"A large deciduous (?) forest tree, the fruits picked up at 4,000 ft."

KW 10,181. *Bulbophyllum* ?

"A winter-flowering orchid, with long sprays of orange-spotted flowers. Found on rocks and on trees, at 3,000-4,000 ft. Quaint, but mainly of botanical interest."

KW 10,190. *Acer niveum* ?

“ A fairly big forest tree. Leaves polished above, snow white beneath. Fruits in large bunches. 4,000-6,000 ft.”

KW 10,204. *Chirita* ?

“ Flowers not seen, borne in terminal heads of six or eight, apparently large. Scape about 6 ins. high. Leaves large, lop-sided, hugging the rock. It grows in the steep jungle glens, in deep perpetual shade, and a saturated atmosphere at 4,000 ft. flowering during the rains. It looks to be a good greenhouse plant.”

KW 10,208.

[*Orchidaceae*].

“ An epiphyte, with long compact spikes of white, violet-speckled fragrant flowers. The main stem bears several such spikes in a terminal fascis. Not showy. Hill jungle, 3,000 ft.”

