This article was downloaded by: [UQ Library]
On: 03 February 2015, At: 15:08
Publisher: Taylor & Francis
Informa Ltd Registered in England and Wales Registered Number:
1072954 Registered office: Mortimer House, 37-41 Mortimer Street,
London W1T 3JH, UK

Transactions of the Botanical Society of Edinburgh

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/tped18>

Rhododendron Trichocladum, Franch., And Its Allies

Professor Bayley Balfour F.R.S.

Published online: 29 Nov 2010.

To cite this article: Professor Bayley Balfour F.R.S. (1916) *Rhododendron Trichocladum, Franch., And Its Allies*, *Transactions of the Botanical Society of Edinburgh*, 27:1, 79-88, DOI: [10.1080/03746601609468465](https://doi.org/10.1080/03746601609468465)

To link to this article: <http://dx.doi.org/10.1080/03746601609468465>

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the "Content") contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever

or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden. Terms & Conditions of access and use can be found at <http://www.tandfonline.com/page/terms-and-conditions>

RHODODENDRON TRICHOCLADUM, FRANCH., AND ITS ALLIES.

By Professor BAYLEY BALFOUR, F.R.S.

(Read 13th April 1916.)

This is a small group of Western Chinese species characterised by deciduous leaves and small yellow precocious flowers. We know more or less of four species in the group—*Rh. trichocladum*, Franch., from the Tali Range; *Rh. mekongense*, Franch., from Mt. Sila on the Mekong-Salween divide; *Rh. melinanthum*, Balf. f. et Ward, from East Burma close to the Yunnan boundary, near Atuntsu; and *Rh. xanthinum*, Balf. f. et W. W. Sm., from the Shweli-Salween divide. Of these *Rh. trichocladum*, Franch., has flowered in cultivation from seeds collected by Forrest. From herbarium specimens I judge that *Rh. xanthinum*, Balf. f. et W. W. Sm., is the most desirable of the species from the horticultural standpoint.

In all the species the young parts are coated with an indumentum of long, somewhat tawny, hairs intermixed with the peltate scales of a lepidote surface. As elsewhere amongst Rhododendrons, the stalks of the scales are sunk in shallow pits of the laminar surface, but the disk of the scale is well outside the pit, and this allows its marginal series of cells to expand as a peripheral fringe. Here the component cells of the fringe remain in contact one with the other throughout their extent and do not branch, so that the fringe is entire. The hairs, which may be stiff and erect (*Rh. trichocladum*, Franch.) or lanate and interwoven (*Rh. xanthinum*, Balf. f. et W. W. Sm.), may persist on the twigs to the second year or longer, or may fall off early, and similarly the leaf may, except on the petiole and the base of the midrib above and below, lose entirely the hairs, but all stages of the shedding are to be met with. The under surface of the leaf in all the species is less markedly coated with wax than is the case in the small yellow-flowered species of the Brachyanthum group; indeed in *Rh. trichocladum*, Franch., one can hardly speak of the surface as having a "bloom." Correlated with this, the epidermal papillae, which carry the wax, are short and conical.

The general similarity in flower structure that marks the

group is the presence of few-flowered (3-5) umbels of small flowers with sulphur-yellow corollas. The corolla is shortly campanulate, always lepidote outside, and pubescent on the back of the tube inside. The lobes are large and apparently patent in full flower. The ten stamens, always shorter than the corolla, have large ovoid anthers, and the filaments of the posterior ones are white villous about the middle just at the top of the ovary, and thus form a pompon at the mouth of the corolla tube. The other stamens are shortly pubescent for a short distance from the base upwards. The ovary is always lepidote. The style, glabrous and decurved, expands into a lobulate stigma.

KEY TO THE SPECIES.

Hispid with long stiff hairs :

Calyx lobes 5 mm. long, long ciliate. Corolla 2 cm.
long lepidote outside. Style shorter than or equal-
ling stamens	<i>trichocladium</i>
Calyx lobes 4 mm. long, long ciliate. Corolla 1 cm.
long lepidote outside. Style described as shorter
than ovary?	<i>mekongense</i>

Lanate :

Calyx lobes 2 mm. long scarcely ciliate. Corolla 2 cm.
long lepidote outside. Style longer than stamens .	<i>melinanthum</i>
Calyx lobes 2 mm. long barbate. Corolla 2 cm. long
lepidote and lanate outside. Style shorter than
stamens	<i>xanthinum</i>

Rhododendron trichocladium, Franchet in Bull. Soc. Bot.
Fr., xxxiii (1886), 234.¹

Undershrub, branchlets of the year hairy with lutescent rigid setae. Leaves firmly chartaceous obovate, dark green above with adpressed strigose hairs and with scattered lutescent squamellae, pale beneath and more densely lepidote, also hirtellous on the midrib and margin as well as on the petiole with rigid setae. Flowers 3-4 fasciculate at the apex of the branchlets, pedicels elongate and patently

¹ *Rh. trichocladium*.—Fruticulus, ramis hornotinis setis rigidis lutescentibus hirtis. Folia firmiter chartacea, obovata, supra atrovirentia, pilis strigosis adpressis, squamulisque lutescentibus conspersa, subtus pallida magis dense lepidota et praeterea ad nervum medium, simul ac ad marginem et petiolum setis rigidis hirtella. Flores 3-4, ad apicem ramulorum fasciculati, sulphurei, pedunculis elongatis simul et calycibus patentim villosis; calyx membranaceus ex viridi lutescens, lobis ovatis longe fimbriato-ciliatis; corolla glabra, tubo brevissimo, rotata fere 2 cent. diam.; stamina 10, filamentis brevibus ad medium hirtellis; ovarium dense lepidotum.

villous like the calyx. Calyx membranaceous, greenish lutescent with ovate long-fimbriate ciliate lobes. Corolla rotate sulphur-yellow glabrous, almost 2 cm. diam., tube extremely short. Stamens 10 with short filaments hirtellous at the middle. Ovary densely lepidote.

Yunnan:—On Mount Tsang-Chan. Delavay.

So much Franchet, l.c.

I add the following comments:—

The branchlets of the year have, in addition to the setae, scattered lutescent scales like the leaves. In their second year the branchlets have lost all or most of the hairs and are brownish in tint. The older branches are ash-grey. The foliage buds are ovoid, the bud scales brown leathery, all the outer ovate to ovate rounded—the outermost slightly pointed, those within more rounded and mucronulate, when expanded lepidote on back, and all are more or less shortly ciliate. The innermost become oblong or obovate and pass into foliage leaves. The young leaves often have an abundance of rigid setae on the upper surface. These always disappear early, and I find that the adpressed strigose hairs on the upper surface are not apparent elsewhere than on and about the midrib. The paleness of the under leaf-surface is due to the granular wax on the surface of the epidermal papillae, which here are very short and conical, but the layer never suffices to give the impression of waxy bloom such as one sees in *Rh. melinanthum*, Balf. f. et Ward, or in *Rh. sulfureum*, Franch. The peltate scales have an entire fringe, and the umbo is slightly convex and rubiginose. The pedicels are also lepidote. The flower bud scales are quite like those of the vegetative buds. The calyx lobes are often oblong, about 5 mm. long by 2 mm. broad. The sulphur-yellow corolla is about 2 cm. long with the lobe about 1 cm. wide or more, and the tube strongly pubescent inside on the posterior side. Of the ten stamens four posterior are villous about middle just above the ovary, the others are slightly pubescent from near base a short way upwards. The scales of the ovary have a fringe and are like those of the leaf. The short glabrous style is decurved. The ovary is ovoid, about 4 mm. long; the style is about 7 mm. long, expanding into the lobed stigma. The capsule is small ovoid oblong,

about 8 mm. long and 3 mm. broad, with vestiges of the squamules.

The dried specimens I have examined are :—

Yunnan:—Les coteaux de Tchang-chan. Alt. 3000 m. Delavay. Herb. Paris.

Yunnan:—Mekong-Yangtze divide. Moist open situations in pine forests on the ascent of the Wei Hsi pass. Lat. 27° 15' N. Alt. 10,000 ft. G. Forrest. No. 698. Sept. 1904. Herb. Edin.

Yunnan:—Eastern flank of the Tali Range. Lat. 25° 40' N. Alt. 9000–10,000 ft. Shrub of 2–4 ft. Foliage deciduous, flowers pale yellow. Open rocky situations in side valleys. G. Forrest. No. 4145. May–June 1906. Herb. Edin.

Yunnan:—Eastern flank of the Tali Range. Lat. 25° 40' N. Alt. 10,000–11,000 ft. Shrub of 2–4 ft. Flowers bright yellow. In rhododendron and cane scrub. G. Forrest. No. 6755. June 1910. Herb. Edin.

Yunnan:—Tali Range. Lat. 25° 40' N. Alt. 10,000–11,000 ft. Shrub of 2–4 feet. Flowers precocious, bright yellow. Open pasture on the margins of rhododendron thickets. G. Forrest. No. 11,630. July 1913. Herb. Edin.

Yunnan:—Tali Range. Lat. 25° 40' N. Alt. 10,000–11,000 ft. G. Forrest. No. 12,423. May 1914. Herb. Edin.

I have also seen twigs of plants grown by Mr. Williams at Werrington, and we have in the Royal Botanic Garden several plants—some of them flowered in 1915—which were raised from seed collected by Mr. Forrest and presented to the Garden by Bees, Ltd. The plant is hardy and an interesting addition to our small yellow-flowered garden species. I notice that some of these living plants have not shed their leaves after the first season.

Mr. Forrest tells me the plant is abundant on the Tali Range.

Rhododendron mekongense, Franch. in Journ. de Bot. xii (1898), 263.¹

¹ *Rhododendron mekongense*. (*Azalea* sensu Maxim.)—Rami virgati ramosi, in vicinitate inflorescentiae simul ac ramuli novelli pilis longis hispidi; folia post flores evoluta (adulta non vidi), juvenilia oblongo-ovata, 15–25 cent. longa, petiolo et ad marginem hirsuta, apice rotundata cum mucronulo, supra intense viridia, glabra, subtus glauca,

Branches virgately branched, hispid with long hairs in the vicinity of the inflorescence and also on the young branchlets. Leaves (which are not known in the mature state) expanding after the flowers; young leaves oblong obovate, 15-25 mm. long, hirsute at the margin and on the petiole; apex rounded and mucronulate, deep green glabrous above, glaucous beneath and lepidote. Floral buds separated from the foliar buds small (4-5 mm.) glabrous. Flowers terminal, 3-5, loosely fasciculate; pedicels 10-12 mm. long lepidote. Calyx 4 mm. long with lanceolate obtuse lepidote lobes ciliate at the margin with fuscous hairs. Corolla yellow, 1 cm. long, 12 mm. wide, shortly and widely tubular with obovate cup-shaped lobes; stamens 8-10 included, filaments lanate below. Ovary closely lepidote, longer than the glabrous style.

Mt. Sila in the Mekong Valley, between the Mekong and the Salween. Soulié.

The corolla is like that of *Rh. brachyanthum*, Franch., but the calyx has a different form, and the presence of hairs upon the branches and upon the leaves and the precocity of the flowers in *Rh. mekongense*, Franch., distinguish well the two species.

So much Franchet l.c.

I add the following comments:—

This species, imperfectly known, is a difficult one. Through the kindness of M. Lecomte I have seen a specimen of Soulié's collecting under No. 1004 from the locality of the type. I have made a careful analysis of this specimen and find no character by which I can separate it from *Rh. trichocladium*, Franch. Without doubt they are the same species. In a note to his description of *Rh. mekongense*, Franchet compares his species with *Rh. brachyanthum*, Franch., and from that species Soulié's plant is easily diagnosed on the lines marked out by Franchet. But it is remarkable that Franchet says

lepidota; gemmae florales at foliaceis sejunctae, parvae (4-5 mm.), glabrae; flores terminales laxae fasciculatae, circiter 3-5, luteae; pedunculi 10-12 mm. lepidoti; calyx 4 mm., lobis lanceolatis, obtusis, lepidotis, margine pilis fuscis ciliatis; corolla 1 cent. longa, 12 mm. lata, breviter et late tubulosa, lobis obovatis, poculiformibus; stamina 8-10, inclusa, filamentis inferne lanatis; ovarium crebre lepidotum, stylo glabro longius.

nothing about *Rh. trichocladum*, Franch., as an ally of *Rh. mekongense*, Franch.

In 1906 I endeavoured to match Forrest's specimen No. 698—this is the same as Monbeig No. 7 in Kew Herbarium : so like are they they might have been plucked from the same bush—with specimens named by Franchet in the Paris Herbarium, and found the match in a specimen named *Rh. mekongense*, Franch., without entering into a critical investigation of distinction from *Rh. trichocladum*, Franch. Now having good material of *Rh. trichocladum*, Franch., both dried and living specimens of Forrest's and dried ones of Monbeig's plants, I am satisfied that they do not differ from *Rh. trichocladum*, Franch. This adds, I think, to the evidence pointing towards the identity of *Rh. mekongense*, Franch., with *Rh. trichocladum*, Franch.

Turning now to the words of the technical description of the two species *Rh. trichocladum*, Franch., and *Rh. mekongense*, Franch. (the adult leaves of *Rh. mekongense*, Franch., are unknown), the only characters available for distinction are :—

- a. The corolla cup-shaped, 1 cm. long in *Rh. mekongense*, Franch.; rotate and 2 cm. long in *Rh. trichocladum*, Franch.
- b. The ovary longer than the style in *Rh. mekongense*, Franch.; shorter in *Rh. trichocladum*, Franch.

Short corollas occur, however, in *Rh. trichocladum*, Franch., and its rotateness is often hardly marked—easily merging into cup-shaped.

As to the relative length of the ovary and style Franchet writes, "ovarium crebre lepidotum, stylo glabro longius." This would be an unusual character in this series of Rhododendrons—though it is met with in the Lapponicum group and in the Anthopogon group—and I suspect a misprint: perhaps we should read, "stylo glabro longissimo." The character named by Franchet does not appear in Soulié's specimen No. 1004.

What I have said about its relationship with *Rh. trichocladum*, Franch., does not end my difficulty over *Rh. mekongense*, Franch. Kingdon Ward collected in the Kargwr-pw glacier valley, which is near Atuntsu, a pretty

yellow-flowered species which now bears the name *Rh. melinanthum*, Balf. f. et Ward. The locality is not far from Mt. Sila, where Soulié obtained *Rh. mekongense*, Franch., and I have tried to see in Ward's plant Franchet's species. The characters of *Rh. melinanthum*, Balf. f. et Ward, are quite definite, separating it readily from *Rh. trichocladum*, Franch., and its short calyx, longer pedicels and long projecting style do not fit in with Franchet's description of *Rh. mekongense*, Franch.

Until more material is available we must leave the question where it stands.

Rhododendron melinanthum, Balf. f. et Ward.¹ Sp. nov.

A bushy shrub, 6-8 ft. high, with slender scarcely twiggy branches and leaves deciduous after one season. Branchlets of the year are about 1 mm. in diam., clad with long setae

¹ *Rhododendron melinanthum*, Balf. f. et Ward.—Frutex circ. 2-2.5 m. altus tenuiramosus vix virgatus. Ramuli hornotini circ. 1 mm. diam. pilis setiformibus plus minusve praediti et squamulis peltatis rufis perpaucis intermixtis obsiti annotini glabri albid. Alabastra ovoidea parvula cataphyllis externis ovatis spadiceis circ. 1 mm. longis glabris intermediis spadiceis oblongis circ. 7 mm. longis acutis vel obtusis vel subtruncatulis extus lepidotis internis submembranaceis vel subfoliaceis lepidotis. Folia parva brevissime petiolata ad 4.5 cm. longa; lamina anguste obovata vel oblanceolata circ. 4 cm. longa 1.5 cm. lata chartacea apice subrotundo-obtusa minute mucronulata margine plana basi cuneata supra laete viridis costa media tenui minutissime puberula venulis primariis delicatis utrinsecus ad 6 ultimisque (siccitate) leviter elevatis ubique minutissime granulosa subtus glauca papillis epidermicis ceriferis obiecta lepidota squamulis peltatis inaequalibus integro-marginatis conspersis pilosa vel margine et pagina inferiore pilis setiformibus sparsissimis praedita (juventute hirsuta). Inflorescentia terminalis umbellata plerumque 4-flora. Flores plus minusve praecoces. Bractae mox deciduae (non visae). Pedicelli circ. 1.5 cm. longi tenues stricti sparse lepidoti nunc etiam pilis longis hirsuti. Calyx parvulus lobis 5 ovatis vel deltoideis ad 2 mm. longis glaberrimis vel lepidotis rarissime pilis paucis fimbriatis. Corolla lutea extus sparsim lepidota pilosa breviter campanulata vel subpoculiformis circ. 2 cm. longa tubo 1 cm. longo intus puberulo limbi ampliati lobis 5 rotundatis circ. 1 cm. latis. Stamina 10 inaequalia corolla breviora filamentis paucis posterioribus fere ad apicem albo-villosis caeteris basin versus puberulis. Ovarium anguste ovoideum circ. 5 mm. longum dense lepidotum; stylus ultra corollam exsertus ad 2 cm. longus glaberrimus; stigma lobulatum.

Species burmanica ex affinitate *Rh. trichoclad*, Franch. et *Rh. mekongensis*, Franch. ab hoc pilis lanatis non hispidis, pedicellis longioribus, ovario angustiore, stylo corollam superante, ab illo foliis longioribus angustioribus pagina superiore haud strigoso-puberula inferiore glauciore papillis ceriferis longioribus, pedicellis duplo longioribus, calycis lobis parvis haud hirsutis, corolla haud rotata, stylo duplo longiore longe exserto.

and a few peltate reddish scales; the whitish one-year-old branches have neither hairs nor scales. Leaf buds are small and ovoid, covered by chestnut-brown oblong pointed or blunt scale-leaves, which are more or less lepidote on the outside. Leaves small, very shortly stalked, at most 4.5 cm. long; blade narrowly obovate or oblanceolate, at most 4 cm. long and 1.5 cm. broad, thin, papery, blunt, somewhat rounded at the apex, minutely mucronulate with a flat margin and cuneate base, bright green on the upper surface without hairs except for a few minute ones over the midrib (which is slender and slightly prominent, as are the primary veins, which are about 6 on each side, and also the ultimate branches of the venation at least in the dried state), on the under side showing a glaucous wax bloom not very white and lepidote with discontinuous peltate unequal superficial scales which have an entire fringe; the whole leaf devoid of setae except perhaps for a few on the margin and under surface, the remains of a dense covering in youth. Inflorescence a terminal umbel of about 4 flowers, which expand before the leaves. Bracts falling off early. Pedicels about 1.5 cm. long, stiff, slender, and sparingly lepidote, occasionally setulose also. Calyx small with 5 ovate or deltoid lobes about 2 mm. long, without hairs or scales or rarely with a few. Corolla yellow, sparingly lepidote outside but without hairs there, about 2 cm. long, shortly campanulate or somewhat cup-shaped, expanding into a spreading limb with a tube 1 cm. long, puberulous inside and 5 rounded lobes each about 1 cm. broad. Stamens 10 unequal, shorter than the corolla with large ovoid anthers and the posterior filaments densely girt with white hairs about the middle and just above the ovary, the other stamens being shortly puberulous near the base only. Ovary ovoid, about 5 mm. long, densely lepidote; style longer than corolla, about 2 cm. long, quite glabrous and slightly declinate, stigma lobulate.

E. Upper Burma:—Ka-gwr-pw glacier valley. Abies forest. Alt. 12,000–14,000 ft. Kingdon Ward. No. 406. June 1913. Flowers large yellow. Bushy shrub of 6–8 ft.

A bright-flowered species which should be worthy of cultivation. It is easily distinguished from *Rh. trichocladum*, Franch., by its larger adult leaves without hairs

on the upper surface, by the more glaucous tint of the under surface of the leaf where the epidermal papillae are longer, by the flower pedicels nearly twice as long, by its small calyx, which is not hirsute, and by the much longer exserted style. Of its relations to *Rh. mekongense*, Franch., I have written under that species.

Rhododendron xanthinum, Balf. f. et W. W. Sm.¹ Sp. nov.

Small shrub about 1·5 meters high, with short twisted branches and leaves deciduous after one season. Branchlets of the year clad with twisted long interlocking hairs and also sparingly lepidote; one-year-old branches grey and without hairs or scales. Leaf buds small oblong ovoid, the bud scales all shortly ciliate at the apex and the inner lepidote on the back. Leaves at most 3 cm. long, appearing after the flowers; blade thin papery, at most about 2·7 cm. long and 7 mm. wide, oblong or narrowly obovate obtuse or somewhat rounded or even acute at the apex with a flat

¹ *Rhododendron xanthinum*, Balf. f. et W. W. Sm.—Fruticulus ad 15 dm. altus tortuose breviterque ramosus. Ramuli hornotini pilis lanatis dense vestiti sparsimque lepidoti annotini glabrigrisei. Alabastra parva oblongo-ovoidea cataphyllis brunneis exterioribus subrotundatis apice breviter ciliatis interioribus oblongis obtusis circ. 6 mm. longis extus plus minusve lepidotis apice ciliatis. Folia post flores evoluta ad 3 cm. longa; lamina tenuis chartacea circ. 2·7 cm. longa 7 mm. lata oblonga vel anguste obovata apice obtusa nunc subrotundata nunc subacuta margine plana basi cuneata supra sordide viridis subtus pallidior utrinque juventute pilis lanatis fuscis squamulisque superficialibus peltatis integro-fimbriatis lutescentibus discontinuis subtus densius oblecta maturitate supra pilis squamulisque paucis sparsa nunc omnino glabra infra semper lepidota sed costa media basi excepta fere pilosa venarum reticulo purpurascente; petiolus ad 4 mm. longus dense lanatus et plus minusve lepidotus. Flores in umbellam terminalem circ. 3-floram dispositi praecoces; bracteae non visae; pedicelli circ. 1·3 cm. longi lanati et lepidoti superne in calycem lanato-barbatum expansi. Calyx pilis lanatis occultus lobis 5 circ. 2 mm. longis. Corolla lutea circ. 2 cm. longa anguste campanulata extus pilis lanatis plus minusve oblecta et lepidota, tubo circ. 1 cm. longo intus pubescente, limbi ampliati lobis 5 rotundatis circ. 1 cm. diam. integris patentibus. Stamina 10 corolla breviora filamentis posterioribus medium versus albo-villosis os corollinum oppletentibus anterioribus basin versus plus minusve pubescentibus. Ovarium ovoideum circ. 3 mm. longum lepidotum et pilis lanatis ad apicem praecipue plus minusve oblectum; stylus circ. 8 mm. longus stamina subaequans declinatus glaber; stigma lobulatum.

Species yunnanensis *Rh. trichoclado*, Franch. persimilis ramulis brevibus subintricatis haud virgatis, foliis angustioribus, calyce lanato barbato, corolla extus pilis lanatis oblecta differt.

margin and cuneate base, dull green above, paler beneath but without marked glaucous bloom, when young clad on both sides, but more densely below, with long intricate pale brownish hairs and also lepidote with pale shining superficial discontinuous scales; older leaves have lost more or less the hairs and scales from the upper side and are lepidote below with some hairs on the base of the midrib and covering the petiole—the midrib and primary veins and the veinlets tend to become a dark red colour and are not prominent; petiole, at most 4 mm. long, is densely coated with long intricate hairs and more or less lepidote. The flowers are grouped in terminal umbels of about 3 flowers and are precocious. Bracts are soon deciduous. Pedicels are at most 1.3 cm. long with hairs and scales, and expand into the calyx, which is so densely bearded its surface is hidden. Calyx lobes 5. Corolla yellow, about 2 cm. long, narrowly campanulate lepidote outside and pilose; the tube is about 1 cm. long and is pubescent inside, the ample limb has 5 rounded spreading entire lobes about 1 cm. in diameter. The stamens are 10 shorter than the corolla with large ovoid anthers, and the filaments of the posterior stamens whitely villous about the middle, filling up the mouth of the corolla above the ovary, the others are puberulous at the base. The ovoid ovary, about 3 mm. long, is lepidote and also bears long twisted hairs, especially at the top; style more or less declinate is about 8 mm. long and quite glabrous; stigma lobulate.

Yunnan:—Shweli-Salween divide. Lat. 25° 30' N. Alt. 10,000 ft. Shrub of 2–4 ft. Flowers precocious, canary-yellow. Open stony slopes on the margins of thickets. G. Forrest. No. 12,066. June 1913.

This species is without doubt the representative on the Shweli-Salween divide of *Rh. trichocladum*, Franch., which is spread over the Tali Range. The Shweli-Salween plant differs from *Rh. trichocladum*, Franch., in habit. It forms a somewhat intricately branched small shrub wanting the stouter virgate twigs of *Rh. trichocladum*, Franch. Then the hair indumentum here is always lanate in type, not hispid. Further, the calyx has a dense beard of hairs coating it, and the corolla has hairs on the outside in addition to scales.