

# 1066. Viburnum oliganthum Batalin: Viburnaceae

Article

**Published Version** 

Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0

**Open Access** 

Rix, M. and Battle, C. (2023) 1066. Viburnum oliganthum Batalin: Viburnaceae. Curtis's Botanical Magazine, 40 (2). pp. 221-227. ISSN 1467-8748 doi: https://doi.org/10.1111/curt.12512 Available at https://centaur.reading.ac.uk/112654/

It is advisable to refer to the publisher's version if you intend to cite from the work. See <u>Guidance on citing</u>.

To link to this article DOI: http://dx.doi.org/10.1111/curt.12512

Publisher: Wiley

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the <u>End User Agreement</u>.

# www.reading.ac.uk/centaur

# CentAUR

Central Archive at the University of Reading

Reading's research outputs online



#### PLANT PORTRAIT

CURTIS'S Botanical Magazine

# 1066. Viburnum oliganthum Batalin

Viburnaceae

## Martyn Rix<sup>1</sup> | Christine Battle<sup>2</sup>

<sup>1</sup>Royal Botanic Gardens, Kew, Richmond, UK

<sup>2</sup>Department of Plant Sciences, University of Reading, Reading, UK

Correspondence

Martyn Rix, Royal Botanic Gardens, Kew, Richmond, UK. Email: martynrix@aol.com

#### Summary

*Viburnum oliganthum* Batalin is illustrated in flower and fruit: its relationships and ecology are discussed. Instructions for its successful cultivation are given.

#### INTRODUCTION

The genus *Viburnum* is found all round the northern hemisphere, and as far south as the Andes and New Guinea. Two hundred and two species are currently accepted (POWO.Kew.science); the family to which *Viburnum* is assigned has varied in recent years; traditionally it was placed in the Caprifoliaceae, together with *Lonicera*, but early DNA studies suggested that it should be transferred to a separate family, and Adoxaceae was used as its family, since it was shown to be more closely related to *Adoxa* and *Sambucus*; Christenhusz et al. (2017) suggested that the family name might be changed to Viburnaceae Raf., and this has now been accepted; *Adoxa* and *Sambucus* are still associated and both are now included in the Viburnaceae.

*Viburnum oliganthum* was described in 1894 by Alexander Batalin from collections made by Grigori Potanin in Gansu in August 1885 (in fruit) and in flower in Sichuan by Augustine Henry (*Henry 8934*). Grigori Nikolayevich Potanin was born in Siberia in 1835 and attended military college in Omsk, where he became acquainted with the traveller Peter Semenov (Tyan-Shansky) (1827–1914). In the 1850s, he travelled to the Altai with an expedition and then determined to study in St Petersburg, which he had visited while escorting a government gold caravan in 1858. His brief spell at the university was curtailed when he joined student protests, and after a short spell in prison, he returned to Nikolsk in Siberia as a convict settler. Semenov secured his early release and he and his wife Aleksandra were allowed to lead an expedition to Mongolia and eastern Xinjiang in 1876–1877; this was concerned mainly with ethnography, and they were the first to study the Uygur language. Their later expeditions, the third starting from Beijing in 1884, were concerned more with botany and zoology, and on this they travelled in the high, dry country in eastern Gansu and Sikang to the country east of Kokonor.

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

<sup>© 2023</sup> The Authors. Curtis's Botanical Magazine published by John Wiley & Sons Ltd on behalf of Royal Botanic Gardens Kew.

On their fourth expedition the Potanins reached further south, again starting from Beijing in February 1893, entering Sichuan across the Tsinling mountains, visiting Chengdu and reaching Emei shan in April, before basing themselves in Kanding for the 3 months of May to July. Here Aleksandra was taken seriously ill and the party left for relative civilisation, but she died, at the age of only 50, shortly before they reached Chongqing and more comfortable river transport. She is remembered in the beautiful *Rheum alexandrae* Batalin, and by a crater on Venus.<sup>1</sup>

Together and with other expedition members, the Potanins made huge collections amounting to over 20,000 plant specimens, which were studied in St Petersburg, first by Maximowicz and later by Alexander Batalin who was botanist and director of the herbarium until his death in 1896 (Cox, 1945; Coats, 1969).

Potanin's type collection of *Viburnum oliganthum* was made on their third expedition in Gansu in 1885, in the valley of the Honton river above the village of 'Shi dsha pu' which is in northern Sichuan; the better-known but very different *Viburnum betulifolium* Batalin was collected there on the same day. The syntype (in flower) was made by Augustine Henry, in Sichuan in 1890, without definite locality (Batalin, 1894).

Viburnum oliganthum is placed in sect. Solenotinus DC. (De Candolle, 1830), which included mainly Himalayan species including the early-flowering V. grandiflorum Wall. ex DC. There are now reckoned to be around 20 species in this section, of which 18 are found in China and 13 are endemic (Yang & Malécot, 2011). The species most similar to V. oliganthum are V. chingii P.S. Hsu, V. erubescens Wall. and V. longipedunculatum (P.S. Hsu) P.S. Hsu. Both V. erubescens and V. longipedunculatum are easily distinguished by being deciduous: V. chingii is evergreen and has a similar pendulous inflorescence, but has broader leaves, and is stellate-pubescent on the young leaves and inflorescence; it is found mainly in southern Yunnan and northern Myanmar.

In addition to the type collections in Sichuan made by Potanin and Henry, *Viburnum oliganthum* appears to be widespread in western China, and is listed in FoC (Yang & Malécot, 2011) from Sichuan, NE Yunnan, Guizhou, W. Hubei and Xizang. Henry made further collections of it in Yunnan; Wilson collected it both in western Hubei and on Emeishan, where it was also collected by W.P. Fang and Peter Green; George Forrest made several collections in Yunnan (e.g., *F. 24,079 & F. 26,520*), and Père Cavalerie collected it in Guizhou in 1908. Most of these collections are similar in leaf shape, and agree with the specimen illustrated, but *Fang 2236* and *Caval. 3002* have distinctly narrower leaves than the other collections. Père Cavalerie's collection from Guizhou, *Cavalerie 3002*, is the type of *V. stapfianum* Lév.; the leaf measurements in the type description are  $8-10 \times 1-3$  cm, and the flowers are described as rose-pink, but it is otherwise similar to *V. oliganthum*.

The main distinguishing features of *Viburnum oliganthum* are the very shiny, brownish-green evergreen leaves, reddish-purple stems and compound pendulous inflorescence, with a peduncle to 7 cm long before the first branch. The corollas are white or pink, with a tube 6–8 mm long and 6 mm across the lobes; the stamens are purplish...the fruits are somewhat elongated.

#### CULTIVATION

Though *Viburnum oliganthum* was collected several times by European travellers in western China in the early 20th century, it does not appear to have been widely cultivated in gardens in Europe or North America until the late 1990s. It forms a spreading, evergreen shrub, with notably shining leaves, tubular lightly-scented flowers in pendulous corymbs, and loose bunches of bright red fruit (Plate 1066).

A few cultivars have been named: 'Kyo Kanzashi' has particularly long, compound inflorescences, and rich pink peduncles and calyces. In England this is stocked by Pan Global Plants in Gloucestershire. 'Yamaguchi pink', is a pink-flowered form which is grown mainly in North America. The photograph by David Boufford in FoC, shows a more compact inflorescence, with pure white flowers and green peduncles.



14678748,0, Downloaded from https://onlinelibaray.wiley.com/doi/10.1111/urt.12512 by Test, Wiley Online Library on [26/07/2023]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Century Commons License

5

The form illustrated here has proved easy to grow: it is hardy to around  $-10^{\circ}$ C, droughttolerant and thrives both in the shade of deciduous trees and in full sun. When young or when pruned hard the shoots are upright and the leaves in the upper part of the range, but older plants develop smaller leaves and a spreading habit, which shows off the pendulous inflorescences. A few fruits are formed annually, and it may be that two clones are needed for all the flowers to be fertile.

Propagation is easy by hardwood cuttings, taken in autumn.

The form illustrated here was collected by the Compton, d'Arcy and Rix expedition to Yunnan and Sichuan in autumn 1995 in the valley below Kanding, in dense scrub, approx. 30.093 N 102.041 E, (*C.D. & R. 2440*) (Figure 1).

#### NOMENCLATURE AND DESCRIPTION

*Viburnum oliganthum* Batalin, Trudy Imp. S.-Peterburgsk. Bot. Sada 13: 372 (1894). Type: China borealis, prov. *Kansu* orientale, vallis fluv. Honton supra Shi dsha pu, 15 Aug. 1885, fructif. (*Potanin*); Szechuan, No. 8934, florif. (*A. Henry*); syntypes ?LE.

Viburnum stapfianum H. Lév., Repert. Spec. Nov. Regni Veg. 9: 443 (1911). Type: Kouy-Tchéou: Ma-Jo, petit arbre; mai 1908, Jul. Cavalerie, 3002; iso-K.

#### Description

Evergreen *shrubs* or small *trees*, to 6 m tall, usually reaching around 4 m. *Bark* brownish. Branchlets of current year reddish-brown, with rounded lenticels, and a few scattered hairs when young. Leaves always opposite, disposed evenly along the branchlets; stipules absent; petiole reddish-brown, stiff, 5-15 mm, stellate-pubescent or glabrous; leaf blade bright green when young, shining above, narrowly ovate, linear-oblanceolate or obovate-oblong to oblong, rarely obovate,  $5-10(-13) \times (1.5-)2-3.5$  cm,  $(6-10 \times 2-3.5$  cm in the form illustrated) subleathery or leathery, very rarely thickly papery, glabrous above, with scattered stellate hairs beneath, midvein raised on both surfaces, particularly above, lateral veins in 5 or 6 pairs, pinnate, arched, branched, anastomosing near margin, slightly conspicuous abaxially, impressed adaxially, base cuneate to obtuse, rarely subrounded, without glands, margin narrowly recurved, remotely and shallowly serrate above 1/3-1/2 from base, apex abruptly narrowed and acuminate to long acuminate, shortly or long caudate. Flowers appearing with the new leaves; inflorescence paniculate, at apices of short branchlets with 1 pair of leaves,  $2.5-4.5(-10) \times 2-4$  cm; peduncles green or reddish, 2.5-7 cm sparsely yellow-brownish stellate-pubescent; bracteoles persistent, scale-like. Calyx purplish-red; tube ca. 2 mm, glabrous; lobes triangular-ovate, ca. 0.5 mm, glabrous, apex acute. Corolla white or pinkish, with the tube 6–8 mm and lobes spreading, broadly ovate, ca. 2 mm, apex rounded, margin entire. Stamens shorter than corolla, inserted at apex of corolla tube; filaments very short; anthers purplish, oblong, ca. 1.5 mm. Styles exceeding calyx lobes; stigmas capitate. Fruit initially turning red, maturing nigrescent, ellipsoid,  $6-7 \times 4-5$  mm, base rounded, apex rounded, glabrous; pyrenes compressed, ellipsoid, ca.  $6 \times 4$  mm, with one broad and deep ventral groove, apex rounded (description from FoC and living and herbarium specimens at K.) (Figure 2).

#### Distribution

North-western China; Guizhou, W. Hubei, Sichuan, NE Yunnan, Xizang.



FIGURE 1 Viburnum oliganthum, flowering in North Devon.

### Habitat

Woodland margins, roadsides, and open slopes.

### Flowering time

April to June; fruiting June to August.



**FIGURE 2** *Viburnum oliganthum.* (A) Flower buds, calyx and bracteoles,  $\times 3$ ; (B) flower showing corolla lobes and stamens,  $\times 5$ ; (C) corolla opened up,  $\times 7$ ; (D) lower surface of leaf, showing veins and scattered stellate hairs,  $\times 5$ ; (E) petiole with stellate hairs,  $\times 20$ ; (F) style from above,  $\times 5$ ; (G) flower after corolla has fallen,  $\times 5$ ; (H) section of fruit,  $\times 5$ ; (J) pyrene,  $\times 5$ . Measurements for the plate viewed at 110 mm wide. All figures drawn from *C.D. & R. 2440*, by Christine Battle from plants cultivated in Devon.

#### ENDNOTE

<sup>1</sup> 'Even after death, the unfortunate woman had not concluded her travels; her body was taken down river to Shanghai and by sea to Tientsin, and from there dispatched by caravan across Mongolia and the Gobi desert to Kiahkta – the nearest place where she could be buried on Russian soil' (Coats, 1969: 116).

#### REFERENCES

Batalin, A. (1894) Notae de Plantis Asiaticis XLIX-LXXI. Acta Horti Petropolitani, 13(18), 372-373.

- Christenhusz, M., Fay, M.F. & Chase, M.W. (2017) Plants of the world. An illustrated encyclopedia of vascular plants. Richmond: Kew Publishing.
- Coats, A.M. (1969) The quest for plants. A history of the horticultural explorers. London: Studio Vista.
- Cox, E.H.M. (1945) Plant-hunting in China. A history of botanical exploration in China and the Tibetan marches. London: Collins.
- De Candolle, A.P. (1830) Prodromus systematis naturalis regni vegetabilis, sive, Enumeratio contracta ordinum generum specierumque plantarum huc usque cognitarium, juxta methodi naturalis, normas digesta, Vol. 4. Paris: Treuttel et Würtz, p. 328.
- Yang, Q. & Malécot, V. (2011) Viburnum L. In: Wu, Z., Raven, P.H. & Hong, D. (Eds.) Flora of China, Vol. 19. Beijing: Science Press, pp. 570–611.

How to cite this article: Rix, M. & Battle, C. (2023) 1066. *Viburnum oliganthum* Batalin. *Curtis's Botanical Magazine*, 1–7. Available from: https://doi.org/10.1111/curt.12512

7