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***Trautvetteria*, a confused and little- known genus**

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trade, with just two entries for *T. caroliniensis* var. *japonica* in the 1999 *Plant Finder*.

This article stimulated my interest in the genus and when plant hunting in Virginia in 2001 we collected seeds. They readily germinated and have made fine specimens in moisture-retentive soil, flowering freely with scented flowers and making good clumps from a rootstock, just as Barry described.

Garden-worthy *T. caroliniensis* growing in Keith & Lorna Ferguson's garden in Gloucestershire. Tall up to 1.5m, floriferous and scented.

The genus *Trautvetteria* has long been largely ignored and is unknown to many hardy-plant enthusiasts. This is despite an article in *The Hardy Plant* 21(2):53 (1999) by Barry Grieve, a member living in the USA. He describes plants from the east of the US and says that they look very like a *Thalictrum* but with foliage that reminded him of *Trollius*. *Trautvetteria*, he states, forms clumps of leaves about

15–25cm across with much taller flower stems carrying icy white, fragrant feathery flowers 45–90cm high. It prefers light to medium shade but could take some direct sun, and flowers over a long period peaking in late June to mid-July. It does not require a particularly wet area, just good garden soil, rich in organic matter and a good mulch to conserve moisture in dry periods. He wonders why it is not in the horticultural



T. var. occidentalis in the wild – many leaves and few flowers.

One, two, three, or more species? This is how botanists respond to the challenge of identifying plants so that we gardeners can be sure of what we're buying. Research, observation, and now DNA analysis will probably result in more name changes.

Observing plants in the wild in the eastern US in Virginia and North Carolina I found that they grew up to 150cm high, tended to be in small clumps, and have deeply divided, glabrous (smooth) leaves. In the northwest US, plants seen in Oregon had formed large stands almost a ¼-acre in area, were clearly rhizomatous and had relatively few inflorescences. They were generally 50–70cm high and the upper leaves seemed less divided. Another colony in the northwest found in the meadows on Hurricane Ridge, Olympic Peninsula in Washington State, was not as extensive but again appeared to flower sparingly. The western plants are generally of rhizomatous habit, much less free flowering, and shorter. I have only seen the Japanese plants in cultivation in the UK and these are much lower growing with smaller flowers and more entire leaves and noticeably rhizomatous. The flowers of all three are scented, those of the eastern US taxon especially so in cultivation.

The RHS Dictionary (1965) mentions the variation, and states that the Japanese form is offered as *T. japonica* while treating the American taxa as two varieties. The *New RHS Dictionary* (1992) treats the two US taxa as distinct species, *T. caroliniensis* and *T. grandis*, with no mention of the Japanese taxon. The 2015 *Plant Finder* follows current botanical thinking with a single species, *T. caroliniensis*, with 2 entries; there are two varieties listed as *T. caroliniensis* var. *japonica* and *T. c.* var. *occidentalis*, both offered by four nurseries.

There seems some disagreement in the botanical literature. *Flora North America 3* (1997) recognises one species and only observes that the western US taxon has been treated as a species and a variety and that recent Japanese authors have regarded *T. japonica* as conspecific with the American populations, recognised as *T. caroliniensis* var. *japonica*. The description does refer to 'rhizomes', as does *The Jepson Manual of Higher Plants of California* (1993), which treats the western US taxon as var. *occidentalis*. *The Flora of the Carolinas* (1964) refers to a perennial 1.5 m tall from a short rootstock. I have not investigated the Japanese botanical literature, but up until the 1980–90s the population in Japan was referred to a separate species, *T. japonica*.

Interestingly Tom Mitchell, lately of Evolution Plants Nursery, offered in 2014 a new species of *Trautvetteria* from the eastern US. This was given to him by Aaron J. Floden, of the University of Tennessee at Knoxville, who discovered it and who is studying the genus. The proposed name, not yet published, is '*fonticalcareae*'. I have this new species in cultivation and its most striking feature is the very coriaceous (leathery) handsome foliage; it comes from a root stock and is not rhizomatous. Aaron Floden has told me that he has DNA evidence which shows that his new species is distinct from *T. caroliniensis* in the east and from the western US taxon which he regards as a distinct species, *T. grandis*. He is also working on a fifth taxon, occurring on the Cumberland Plateau in Tennessee and extending westward to Arkansas and Missouri, which has a distinct DNA profile, different from eastern *T. caroliniensis*. This will be most interesting and timely work which hopefully will be published shortly. It should clarify the taxonomy and nomenclature of the different entities and resolve the major differences between the geographical variants which are currently not clear.



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T. var. japonica in cultivation in a Scottish garden: note the creeping habit and few flowering stems.



©Aaron Floden

New species ('*fonticalcare*') found by Aaron Floden in the wild. Note the more entire and leathery leaves.

The genus is a member of the family *Ranunculaceae* and resembles *Thalictrum*. It is named after the German-born Russian botanist Ernst Rudolf von Trautvetter (1809–89). It has a classical phytogeographical distribution occurring in the eastern USA, the northwest USA and in Japan, areas with the same climate. In the wild it grows in moist habitats. In cultivation in the UK it grows well in good garden soil both in the open and in semi-shade.

The taxonomy and nomenclature of the species in the genus is rather confused. I have studied a number of floras and the horticultural literature and there is a lot of variation in the treatment of the species. Currently most botanists regard the plants in the three geographical regions as belonging to the

same species, *T. caroliniensis*, with 3 varieties from the 3 different geographical areas: *T. caroliniensis* var. *caroliniensis* from the eastern US, *T. caroliniensis* var. *occidentalis* from the western US, and *T. caroliniensis* var. *japonica* from Japan. Few authors have attempted to describe the distinguishing features of these taxa. Although superficially very similar in technical botanical characters, the three varieties behave very differently in my limited experience of them in the US in the wild and my observations of the genus in cultivation. I have not seen the Japanese taxon in the wild. These differences are the rationale behind this article.

People are buying *T. var. japonica* and *T. var. occidentalis* though in my opinion they are very

Observations I have made in the US and on plants in cultivation in the UK suggest to me that these 3 taxa need clarification of their habit and flowering, and of their worthiness as garden plants.

disappointing plants. At Stone House Cottage, Louisa Arbuthnott dug up her var. *japonica* and gave it to me rather than throw it on the compost heap; she is now selling progeny from our seed collecting.

In summary, the populations from the eastern US with a rootstock are the only taxa which I consider really garden-worthy plants and they should be better known. 🌿

Keith Ferguson is a retired professional botanist and life-long gardener who has travelled widely, especially in the USA, plant hunting.