
New names in *Persicaria virginiana*

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In recent years several *Persicaria* collections from China and Japan have come into cultivation and appropriate combinations and cultivar names are here provided.

The occurrence of *Persicaria virginiana* in both eastern North America and eastern Asia provides an interesting example of the floristic relationship between the two areas that has been the subject of many publications, that by Li (1952) being particularly comprehensive. There has been considerable diversity of opinion as to the rank at which these disjunct populations merit recognition which, along with the equally diverse opinions over how *Polygonum* L. should be split generically, has led to a large number of botanical names being proposed. Now that *Persicaria* Mill. has gained wide acceptance and has been adopted for the *RHS Plant Finder*, it was noticed that no combination has been provided at varietal rank under *Persicaria* for the Asiatic plant in cultivation. Consequently the following new combination is made:

***Persicaria virginiana* var. *filiformis* (Thunb.) J.M.H. Shaw comb. nov.**

Basionym: *Polygonum filiforme* Thunb., *Fl. Jap.*: 163 (1784).

Synonyms:

Sunania filiformis (Thunb.) Raf., *Fl. Tellur.* 3: 95 (1837).

Polygonum virginianum var. *filiforme* (Thunb.) Nakai, *Bot. Mag. (Tokyo)* 27: 380 (1909).

Persicaria filiformis (Thunb.) Nakai, *Fl. Quelpart Is.*: 41 (1914).

Tovara filiformis (Thunb.) Nakai, *Rigakki* 29(4): 8 (1926).

Tovara virginiana var. *filiformis* (Thunb.) Steward, *Cont. Gray Herb.* 88: 14 (1930).

- Tovara smaragdina* Nakai ex Maekawa, *Bot. Mag. (Tokyo)* **46**: 585 (1932).
- Tovara ryukyuensis* Masamune in *Trans. Nat. Hist. Soc. Formosa* **29**: 60 (1939).
- Polygonum filiforme* Thunb. var. *smaragdinum* (Nakai ex Maekawa) Ohwi, *Bull. Natl. Sci. Mus., Tokyo.* **33**: 70 (1953).
- Antenoron filiforme* (Thunb.) Roberty & Vautier, *Boissiera* **10**: 35 (1964).
- Antenoron filiforme* (Thunb.) Roberty & Vautier f. *smaragdinum* (Nakai ex Maekawa) H. Hara, *J. Jap. Bot.* **40**: 192 (1965).
- Persicaria virginiana* 'Filiformis' Anon. in *RHS Plant Finder 2002–2003* (Lord *et al.*, 2002).

The recent *Flora of Japan* (Iwatsuki *et al.*, **2A**: 159 (2006)) notes that while many authors include *Persicaria neofiliformis* (Nakai) Ohki as a synonym of *P. virginiana* var. *filiformis* at various ranks, studies of morphological characters (Park *et al.*, 1992) and flavonoid patterns (Mun & Park, 1995) show its distinctness. Consequently it is excluded from the above synonymy.

Cultivars of var. *filiformis*

'Batwings' (orthography as in *RHS Plant Finder 2008–2009*; some other sources: 'Bat Wings'). Newly offered in 2007. The dark chevron marking on each leaf has a rather irregular lower edge reminiscent of the silhouette of a bat's wings. Very similar to 'Lance Corporal', but apparently differing by a more lanceolate leaf apex and contrasting dark chevron and slightly paler green background. Illustration: *Gardening Which* p.7 (June 2007).

Compton's Form. Not an acceptable cultivar epithet (*ICNCP Art. 19.19*, 2004): see 'Compton's Red'.

'Compton's Red'. A clone that was collected in China from the wild by Dr James Compton has become distributed under the name Compton's Form. The collection details are: CDR 549 collected as

unidentified *Polygonum* sp. by J. Compton, J. d'Arcy and E.M. Rix, 3 May 1989. China, Sichuan Prov. 30km south-east of Baoxing between Qionglai and Baoxing, growing on roadside bank with *Iris confusa*, alt. c. 1200m, wet area on metamorphic rocky soil.

It is distinguished by its leaves in which the dark red chevron marking is enlarged to occupy most of the leaf, leaving only a small green arrow shape at the base of the leaf. It requires an acceptable cultivar name. Consequently, after consultation with Dr Compton, the name *Persicaria virginiana* var. *filiformis* '**Compton's Red**' is here established.

'Lance Corporal' presumably named for the chevron-shaped dark reddish-brown stripe that runs across the centre of each leaf. The lower margin of the stripe is very irregular. Very similar to 'Batwings', but differing by slightly more ovate leaves and a less strongly contrasting chevron. A standard specimen has been deposited in the RHS herbarium (**WSY**). Several nurseries in the USA offer a plant under this name, but pictures on the Internet show a plant with paler green ovate leaves that may belong to var. *virginiana*. In addition there is an unnamed clone offered by several UK nurseries that is very similar to both 'Batwings' and 'Lance Corporal'; a voucher specimen from a plant obtained from Long Acre Plants has been deposited at **WSY**.

'Moorland Moss' A clone selected and named by Jennifer Matthews of Moorland Cottage Plants for its pale mossy green leaves each with a paler reddish chevron mark.

Cultivars of var. *filiformis*: Variegated Group

This group contains plants with variegated foliage. Plants in this group tend to be less hardy.

'Aureo-variegatum'. An early selection; see *JRHS* 27: 22 (1902).

'Painter's Palette'. Leaves variegated with gold, with the central chevron rather irregular of pale pink-brown. Illustration: Brickell, *RHS A-Z encyclopedia of garden plants* 2: 793 (2003).

'Variegata' ('Variegatum' when referred to *Polygonum*). Long-cultivated clone with broad leaves with ivory and primrose-yellow variegation, lacking the dark chevron mark on the leaves. Awarded FCC/RHS Salter, 1865. Illustration: Hirose & Yokoi 1998: 203.

Terra Nova Nurseries (USA) offer a selection from this cultivar which they label 'Variegata' Terra Nova Strain. If this really is distinct it requires a new cultivar name, omitting the word "strain" to comply with ICNCP Art. 19.21 (2004).

A plant with white flowers is cultivated in gardens in Japan, and appears to be the plant available in the UK under the designation "white-flowered" (*RHS Plant Finder 2007–2008*: 561). This plant has been described botanically in Japan, and once again a combination under *Persicaria virginiana* is required:

***Persicaria virginiana* var. *filiformis* f. *albiflora* (Hiyama ex Makino)**

J.M.H. Shaw comb. nov.

Basionym: *Tovara filiformis* (Thunb.) Nakai f. *albiflora* Hiyama ex Makino, *J. Jap. Bot.* 17: 319 (1941).

Synonyms:

[*Polygonum filiforme* Thunb. f. *albiflorum* Makino, Makino's *Illustr. Fl. Jap.* 626, sub f. 1876 (1940), *nom. nud.*, without Latin diag.]

Antenoron filiforme (Thunb.) Roberty & Vautier f. *albiflorum* (Hiyama ex Makino) H. Hara, *J. Jap. Bot.* 40: 192 (1965).

Persicaria filiformis (Thunb.) Nakai ex W.T. Lee f. *albiflora* (Hiyama ex Makino) Yonek., in *Watsuki et al.*, *Fl. Jap.* 2A: 158 (2006).

A colour form of var. *virginiana*

A further plant with red or bright pink fruiting calyx is known from Ohio, North America. However a combination does not yet appear to be available under *Persicaria* and is here provided:

***Persicaria virginiana* var. *virginiana* f. *rubra* (Moldenke) J.M.H. Shaw comb. nov.**

Basionym: *Tovara virginiana* var. *rubra* Moldenke, *Boissiera* **7**: 4 (1943).

Synonyms:

Sunania virginiana f. *rubra* (Moldenke) H. Hara, *J. Jap. Bot.* **37**: 330 (1962).

Antenoron virginianum (L.) Roberty & Vautier f. *rubrum* (Moldenke) H. Hara, *J. Jap. Bot.* **40**: 32 (1965).

Key to cultivated forms of *Persicaria virginiana*

- 1a. Leaves ovate, acute to rounded, not attenuate at base; lateral veins 7–9 pairs; flowers green to white, rarely pink to red. North America 2
- 1b. Leaves obovate, base acute to cuneate, attenuate; lateral veins 7–13 pairs; flowers red rarely white. Eastern Asia 3
- 2a. Flowers green to white..... var. ***virginiana* f. *virginiana***
- 2b. Flowers pink to red var. ***virginiana* f. *rubra***
- 3a. Leaves with dense long hairs.....var. ***kachina****
- 3b. Leaves with scattered short hairs 4
- 4a. Flowers redvar. ***filiformis* f. *filiformis***
- 4b. Flowers white.....var. ***filiformis* f. *albiflora***

* var. *kachina* is presently not known to be in cultivation. It also requires a new combination:

***Persicaria virginiana* var. *kachina* (Nieuwl.) J.M.H. Shaw comb. nov.**

Basionym: *Tovara virginiana* (L.) Raf. var. *kachina* Nieuwl., *Am. Midl. Nat.* **2**: 182 (1912).

Synonym: *Antenoron filiforme* var. *kachinum* (Nieuwl.) Hara, *J. Jap. Bot.* **40** (6): 192 (1965).

Key to cultivars of var. *filiformis*

- 1a. Leaves variegated 2
- 1b. Leaves not variegated, all green or with a dark red to brown chevron stripe 3
- 2a. Chevron marking entirely absent '**Variegata**'
- 2b. Chevron present as pale pinky-brown fragmented zone.. '**Painter's Palette**'
- 3a. Chevron red, enlarged to occupy upper $\frac{3}{4}$ of leaf..... '**Compton's Red**'
- 3b. Chevron dark brown, restricted to midway along leaf, margins irregular4
- 4a. Leaves light green, with pale red-brown chevron '**Moorland Moss**'
- 4b. Leaves dark green, with dark red-brown chevron '**Lance Corporal**', '**Batwings**'

Colour morphs and geography

Interestingly, the geographical distribution of pigmentation in *P. virginiana* is the same as that found in *Podophyllum* (*Berberidaceae*). Both the American taxa *Podophyllum peltatum* and *Persicaria virginiana* var. *virginiana* commonly exhibit white flowers. In both of these, pink- and red-flowered variants are known to rarely occur and have been named. In eastern Asia both *Persicaria virginiana* var. *filiformis* and *Podophyllum* sect. *Dysosma* predominantly produce red flowers while white-flowered morphs are rarely encountered but have also been named. Shared pollinators do not appear to be an important factor, since *Podophyllum* sect. *Dysosma* is sapromyophilous, while the trans-Himalayan *Podophyllum hexandrum*, which exhibits a clinal colour pattern of predominantly white flowers in the west to red flowers in the east of its range, is self-pollinating and the American *Podophyllum peltatum* appears to attract bumblebees by deceptive association with other nectar-rich species. Various ideas have been advanced to account for the occurrence of the red morphs in American *Podophyllum peltatum*, including palaeohybridisation with Asiatic species. However, the red morphs tend to appear at the limits of the natural range, with a pocket of diversity in Pennsylvania, which may suggest that these variants are a response to environmental stress. Little is known about the pollination and

breeding biology of the *Persicaria virginiana* complex, but it invites investigation.

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