



A new combination in *Alkekengi* (Solanaceae) for the Flora of China

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The genus *Physalis* Linnaeus (1753: 182) is a medium-sized genus in the family Solanaceae Jussieu (1789: 124). It includes about 75 New World species and one Eurasian species, *P. alkekengi* Linnaeus (1753: 183), the generic lectotype (Britton & Brown 1913). Recently, several phylogenetic analyses focusing on *Physalis* and related taxa strongly supported the monophyly of the morphologically typical New World species, characterized by unlobed and yellow flowers. *Physalis alkekengi* represents a divergent clade characterized by somewhat lobed, white corollas and brilliant red-orange fruiting calyces (Whitson & Manos 2005; Olmstead *et al.* 2008). In order to emphasize the monophyly and morphological homogeneity of the New World species and decrease nomenclatural disruption, the genus *Physalis* was proposed for conservation with a conserved type, *P. pubescens* Linnaeus, to represent the New World species (Whitson 2011). The Eurasian *P. alkekengi* was suggested to be placed in a monotypic genus *Alkekengi* Miller (1754: AL) typified with *A. officinarum* Moench (1802: 177). This proposal was subsequently recommended for acceptance by the Nomenclature Committee for Vascular Plants (Applequist 2012).

Physalis alkekengi var. *franchetii* (Masters) Makino (1908: 34) is a garden variety and commonly cultivated in China, Japan, South Korea and sometimes in Europe (Master 1894; Zhang *et al.* 1994). It is very similar to *Physalis alkekengi* var. *alkekengi* in corolla shape and calyx color, but differs mainly by its glabrescent fruiting calyces more than 3 cm wide and distinct spots at the corolla base (Zhang *et al.* 1994). During the revision of the “Catalogue of Life China”, it was noticed that this variety had not yet been transferred to *Alkekengi*. Accordingly, the following new combination is proposed.

Alkekengi officinarum Moench var. *franchetii* (Mast.) R.J.Wang, *comb. nov.*

Basionym: *Physalis franchetii* Masters (1894: 434, f. 57), as “*franchetii*”

≡ *Physalis alkekengi* Moench var. *franchetii* (Mast.) Makino, Bot. Mag. (Tokyo) 22(253): 34 (1908).

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References

- Applequist, W.L. (2012) Report of the nomenclature committee for vascular plants: 64. *Taxon* 61(5): 1112.
- Britton, N.L. & Brown, A. (1913) *Physalis* L. *An Illustrated Flora of the Northern United States, Canada and the British possessions*. 2nd ed., vol. 3. C. Scribner's sons, New York. pp. 155–156.
- Jussieu, A.L. (1789) *Genera plantarum*. V. Herissant & T. Barrois, Paris, 498 pp.
- Linnaeus, C. (1753) *Physalis*. *Species Plantarum*, vol. 1. Impensis Laurentii Salvii, Holmiae, pp. 182–183.
- Makino, T. (1908) Observations on the Flora of Japan. *The Botanical Magazine (Tokyo)* 22(253): 32–38.
- Masters, M.T. (1894) New or noteworthy plants. *The Gardens' Chronicle*, ser. 3, 16: 434 et 441, f. 57.
- Miller, P. (1754) *Alkekengi*. *The Gardeners Dictionary, Abridged*, 4th ed., vol. 1. John and James Rivington, London, pp. AL–AL.

- Moench, C. (1802) *Alkekengi officinarum*. Supplementum ad Methodum Plantas a Stamina situ Describendi. In *Officina Nova Libraria Academiae, Marburgi Cattorum*, pp. 177–178.
- Olmstead, R.G., Bohs, L., Migid, H.A. Santiago-Valentin, E., Garcia V.F. & Collier, S.M. (2008) A molecular phylogeny of the Solanaceae. *Taxon* 57(4): 1159–1181.
- Whitson, M. (2011) Proposal to conserve the name *Physalis* (Solanaceae) with a conserved type. *Taxon* 60(2): 608–609.
- Whitson, M. & Manos, P.S. (2005). Untangling *Physalis* (Solanaceae) from the physaloids: A two-gene phylogeny of the physalinae. *Systematic Botany* 30(1): 216–230.
<http://dx.doi.org/10.1600/0363644053661841>
- Zhang, Z.Y., Lu, A.M. & D'Arcy, W.G. (1994) *Solanaceae*. In: Wu, Z.Y. & Raven, P.H. (Eds.) *Flora of China* Vol. 17. Science Press, Beijing & Missouri Botanical Garden Press, Saint Louis, pp. 330–332.