Daines, M. 2022. A new varietal combination in the genus *Gagea* (Liliaceae). Phytoneuron 2022-55: 1–2. Published 22 November 2022. ISSN 2153 733X

A NEW VARIETAL COMBINATION IN THE GENUS GAGEA (LILIACEAE)

MICHAEL DAINES

Pittsburg State University Pittsburg, Kansas 66762 mdaines@gus.pittstate.edu

ABSTRACT

Lloydia serotina subsp. *flava* is transferred to *Gagea*, based on recent molecular results indicating that inclusion of *Lloydia* in *Gagea* is justified. A clarification on the color of the tepals of this variety is briefly presented.

In the 2nd edition of the Flora of the Pacific Northwest (Giblin et al. 2018), it was mentioned that although *Lloydia* Salisb. ex Rchb. had been shown to be nested in *Gagea* Salisb. (Peruzzi et al. 2008; Peterson et al. 2008; Zarrei et al. 2009), the editors chose to retain the genus *Lloydia* because *Lloydia* serotina var. *flava* (Calder & Taylor) B. Boivin had not been transferred to *Gagea*. The varietal combination is made here.

GAGEA SEROTINA (L.) Ker-Gawl. var. FLAVA (Calder & Taylor) M. Daines, comb. nov. Lloydia serotina subsp. flava J.A. Calder & R.L. Taylor, Canad. J. Bot. 43: 1392. 1965. Lloydia serotina var. flava (Calder & Taylor) B. Boivin, Naturaliste Canad. 94: 525. 1967. TYPE: CANADA. British Columbia. Queen Charlotte Islands: Lake Takakia about 10 mi S of Moresby Logging Camp (head of Cumshewa Inlet), Moresby Island, 1870 ft, 25–30 Jul 1964, J. A. Calder 36266 (holotype: UBC! [digital image]; isotypes: DAO, GH! [digital image], OSC! [digital image], WTU).

Recent treatments may have mischaracterized the tepal color of *Gagea serotina* var. *flava*. The description of *Lloydia serotina* var. *flava* in Giblin et al. (2018) indicates that the tepals are yellow, as pointed out by Björk (2020). This view perhaps was repeated from the same mischaracterization in Reveal & Utech (2002). The original description of subsp. *flava* indicated that the tepals are "yellow at base" (Calder & Taylor 1965), implying that the tepals may be mainly white, as in var. *serotina* (Björk 2020) and only basally yellow. Calder & Taylor (1965), however, did not characterize the overall tepal color — they referred to this taxon as "the yellow-flowered subsp. *flava*."

ACKNOWLEDGEMENTS

I thank Neil Snow for his input on versions of this manuscript and the staff at UBC for providing a digital image of the holotype.

LITERATURE CITED

- Björk, C.B. 2020. Book Review: Flora of the Pacific Northwest: An Illustrated Manual, 2nd edition. J. Bot. Res. Inst. Texas 14: 152–157.
- Calder, J.A. and R.L. Taylor. 1965. New taxa and nomenclatural changes with respect to the flora of the Queen Charlotte Islands, British Columbia. Canad. J. Bot. 43: 1387–1400.
- Giblin, D.E., B.S. Legler, P.F. Zika, and R.G. Olmstead (eds.). 2018. Flora of the Pacific Northwest: An Illustrated Manual, 2nd edition. Rev. from C.L. Hitchcock & A. Cronquist. 1973. Univ. of Washington Press, Seattle.

- Peruzzi, L., J.-M. Tison, A. Peterson, and J. Peterson. 2008. On the phylogenetic position and taxonomic value of *Gagea trinervia* (Viv.) Greuter and *Gagea* sect. *Anthericoides* A. Terracc. (Liliaceae). Taxon 57: 1201–1214.
- Peterson, A., I.G. Levichev, and J. Peterson. 2008. Systematics of *Gagea* and *Lloydia* (Liliaceae) and infrageneric classification of *Gagea* based on molecular and morphological data. Molec. Phylog. Evol. 46: 446–465.
- Reveal, J.L. and F.H. Utech. 2002. *Lloydia* (Liliaceae). P. 198, <u>in</u> Flora of North America North of Mexico, Vol. 26. Oxford University Press, New York and Oxford.
- Zarrei, M., P. Wilkin, M.F. Fay, M.J. Ingrouille, S. Zarre, and M.W. Chase. 2009. Molecular systematics of *Gagea* and *Lloydia* (Liliaceae; Liliales): Implications of analyses of nuclear ribosomal and plastid DNA sequences for infrageneric classification. Ann. Bot. 104: 125–142.