A New Name for *Wasabia koreana* (Brassicaceae) in South Korea

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ABSTRACT. A new name, *Cardamine pseudowasabi* H. Shin & Y. D. Kim (Brassicaceae), is proposed for *Wasabia koreana* Nakai because the transfer of the epithet to *Cardamine* L. would create a later homonym.

Key words: Brassicaceae, *Cardamine*, South Korea, *Wasabia*.

Wasabia koreana Nakai (Nakai, 1935) was originally described as a new species based on the specimen collected around Gwangreung, a famous royal tomb in South Korea. Because the genus *Wasabia* Matsumura is no longer accepted, Baik et al. (1986) transferred the species to *Eutrema* R. Brown and proposed a new name, *E. koreanum* (Nakai) K. Hammer. The plant depicted in the article, however, does not appear to be *W. koreana* but looks very similar to a vegetable species introduced from Japan, *W. japonica* (Miquel) Matsumura, implying that they referred to the wrong species. Since then, in some regional floras including the *Flora of China* (Zhou et al., 2001), *W. koreana* as well as *W. japonica* are treated as synonyms of *E. wasabi* (Siebold) Maximowicz. Recently, Al-Shehbaz and Warwick (2005) considered *E. wasabi* a synonym of *E. japonicum* (Miquel) Koidzumi since the combination made by Zhou et al. (2001) was based on the nomen nudum *Cochlearia wasabi* Siebold and is therefore illegitimate. Unfortunately, these changes for *W. koreana* were apparently conducted without referring to the type specimen.

In a taxonomic review of *Wasabia koreana*, we carefully examined the holotype deposited in TI (Fig. 1) and concluded that Nakai misidentified the species within *Wasabia*. The type specimen exhibits morphological characters typical of *Cardamine* L. such as the presence of a long and slender style as well as simple trichomes on the leaf margin (I. A. Al-Shehbaz, pers. comm.). In addition, the specimen has no mucronate callosities on the leaf margin, which are diagnostic features observed in *Eutrema* (Zhou et al., 2001). Its transfer to *Cardamine* is clearly needed.

Because the name *C. koreana* Nakai (Nakai, 1952) is already taken, we propose a new name for this misplaced species.

Cardamine pseudowasabi H. Shin & Y. D. Kim, nom. nov. Replaced name: *Wasabia koreana* Nakai, J. Jap. Bot. 11: 150. 1935, non *Cardamine koreana* (Nakai) Nakai, Bull. Natl. Sci. Mus. Tokyo 31: 49. 1952. TYPE: Korea. Kyunggi [Gyeonggi]: Gwangreung, Apr. 1934, R. K. Smith 13 (holotype, TI).

Cardamine pseudowasabi H. Shin & Y. D. Kim most resembles *C. yezoensis* Maximowicz, but clearly differs from the latter by having simple leaves (including the basal ones; see Fig. 1) and a densely pubescent stem and leaf margin. Moreover, *C. yezoensis* ranges from Hokkaido to Sakhalin (Bush, 1939; Ohwi, 1985), while the type locality of *C. pseudowasabi* is far more southern (37°N). It is known that *C. yezoensis* is variable in leaf shape and trichome density on the leaf and stem (Bush, 1939). The plants of *C. pseudowasabi* have not been documented from the Gwangreung area since the original gathering, so there is no collection except for the holotype. More collections and extended research including specimens that encompass the entire geographical range of *C. yezoensis* are needed to be certain that *C. pseudowasabi* is not an extreme form of *C. yezoensis*.

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Literature Cited

Al-Shehbaz, I. A. & S. I. Warwick. 2005. A synopsis of *Eutrema* (Brassicaceae). Harvard Pap. Bot. 10: 129–135.

Figure 1. Type specimen of *Cardamine pseudowasabi* H. Shin & Y. D. Kim (Smith 13, TI).

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- Baik, M.-C., H.-D. Hoang & K. Hammer. 1986. A check-list of the Korean cultivated plants. *Kulturpflanze* 34: 69–144.
- Bush, N. A. 1939. Genus *Cardamine*. Pp. 115–129 in V. L. Komarov (editor), *Flora of the U.S.S.R.*, Vol. 8 (Capparidaceae, Cruciferae, and Resedaceae). [English edition printed in 1985 by Bishen Singh Mahendra Pal Singh, Dehra.]
- Nakai, T. 1935. Some noticeable Japanese plants (I). *J. Jap. Bot.* 11: 147–156.
- . 1952. Synoptical sketch of the Korean Flora. *Bull. Natl. Sci. Mus. (Tokyo)* 31: 1–152.
- Ohwi, J. 1985. *Flora of Japan*. Smithsonian Institution, Washington, D.C.
- Zhou, T. Y., L. L. Lu, G. Yang & I. A. Al-Shehbaz. 2001. Brassicaceae. Pp. 1–193 in Z. Y. Wu & P. H. Raven (editors), *Flora of China*, Vol. 8 (Brassicaceae through Saxifragaceae). Science Press, Beijing, and Missouri Botanical Garden, St. Louis.

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