

Hiroyoshi OHASHI^a and Kazuaki OHASHI^b: **An East Asian Form of *Lathyrus palustris* (*Leguminosae*)**

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Summary: An East Asian pilose plant of *Lathyrus palustris* L. is newly recognized as a form of the species. *Lathyrus palustris* f. *miyabei* (Matsum.) H. Hara is applied to the form with enlargement of its circumscription to include *L. pilosus* Cham. and its synonyms.

An East Asian pilose plant resembling *Lathyrus palustris* L. has variously been recognized. It was first named *L. pilosus* Cham. in 1831 based on plants from Kamchatka. It has been recognized as a distinct species from *L. palustris* as cited in Yakovlev et al. (1996) or as an infraspecific taxon at different ranks: var. *pilosus* (Cham.) Ledeb. or subsp. *pilosus* (Cham.) Hultén. *Lathyrus ugoensis* Matsum., *L. miyabei* Matsum., *L. palustris* var. *canescens* Regel, *L. palustris* var. *pseudomyrtifolius* Kudo and others were regarded to be different from *Lathyrus palustris*, but also belongs to the East Asian pilose form (cf. Hara 1943). On the other hand, the pilose form was treated to be indistinct from *L. palustris* by Ball (1968) or by Isely (1990). They included *L. pilosus* Cham. or *L. palustris* var. *pilosus* (Cham.) Ledeb. as a synonym of *L. palustris*, respectively.

The East Asian form of *Lathyrus palustris* had been studied extensively by Hara (1943, 1952, 1956) in taxonomy and cytology. He (1943) clarified nomenclature and then divided *Lathyrus palustris* into two major races: subsp. *palustris*, a glabrous form distributed in Europe, Asia except eastern part and North America and subsp. *pilosus*, a pilose form found in East Asia and northern N. America (Hara 1952, 1956). Furthermore, he (1956) recognized two varieties and one form within subsp. *pilosus*: var. *pilosus* with

somewhat linear leaflets, var. *macranthus* (White) Fernald (= var. *pseudomyrtifolius* Kudo) with narrowly oblong or lanceolate leaflets and var. *macranthus* f. *miyabei* (Matsum.) H. Hara with elliptic broad leaflets. However, he noted that the morphological distinctions among these taxa are continuous. Hara (1956) reported variation in chromosome numbers of the species that $2n = 42$ from subsp. *pilosus* (var. *pseudomyrtifolius*) in Japan differs from $2n = 14$ of subsp. *pilosus* of Canada and agrees with those of *L. palustris* (subsp. *palustris*) of Europe.

Bässler (1973) maintained the East Asian form within *Lathyrus palustris* as subsp. *pilosus* and divided the subspecies to f. *pilosus* and f. *miyabei*. Yakovlev et al. (1996) surveyed geographic distribution of *L. palustris* and *L. pilosus* in northern Eurasia with floristic references in detail and gave a comment for the latter species that it is "close to *L. palustris*, differing by pubescence; besides, there is a disjunction of areas" (on page 541).

After examining herbarium specimens of *Lathyrus palustris* and *L. pilosus* from Eurasia and North America, we noted that pilose forms are quite rare in Europe as already pointed out by Hara (1943). The stipules and leaflets of *L. pilosus* show a wide range of variation in shape and size. We find no demarcation among infraspecific taxa hitherto recognized to be distinct in *L. pilosus*: var. *pilosus*, var. *macranthus* and var. *macranthus* f. *miyabei*. Geographically, *L. palustris* and *L. pilosus* are not clearly separated, but the former is widely found in Europe and North America and the latter is mostly confined to East Asia. *Lathyrus*

pilosus is, therefore, considered as merely a pilose form of *L. palustris*.

There are many names at the rank of form under *Lathyrus palustris* (cf. Hara 1943, Bässler 1973, Isely 1990, Cui 1998), but only *L. palustris* f. *miyabei* (Matsum.) H. Hara and *L. palustris* f. *pilosus* (Cham.) Bässler are referable to the pilose form. *Lathyrus miyabei* Matsum. was characterized in having broad stipules and elliptic or oblong leaflets with pilose under surface (Matsumura 1902). Hara (1943) recognized the species as a robust form of *Lathyrus palustris* subsp. *pilosus* var. *macranthus* (White) Fernald. The leaflet shape adopted for *L. miyabei* is continuous with that of *L. pilosus* and these taxa including *L. palustris* f. *miyabei* (Matsum.) H. Hara are not clearly distinguished from each other. *Lathyrus palustris* f. *pilosus* (Cham.) Bässler was proposed as *L. palustris* subsp. *pilosus* f. *pilosus* by Bässler (1973) including the type of *L. pilosus* Cham. Since f. *miyabei* is the oldest name at the rank of form for *L. pilosus* Cham., we consider f. *miyabei* is referable to the East Asian form of *L. palustris*. The other name, f. *pilosus* is not suitable for the name of rank of form according to the recommendation 26A.3 in the Vienna Code (McNeill et al. 2006), but Article 11.4 in the Code clearly admits priority on the earliest legitimate name in the same rank, i.e., f. *miyabei*. The nomenclature follows:

Lathyrus palustris* L. f. *miyabei (Matsum.) H. Hara emend. H. Ohashi.

Lathyrus pilosus Cham. in *Linnaea* **4**: 548 (1831); Pavlova in *Charkevicz, Pl. Vasc. Or. Extr. Soviet.* **4**: 313 (1989); Czerepanov, *Vas. Pl. Russia Adjac. Stat.* 248 (1995); Yakovlev & al., *Leg. N. Eurasia* 540 (1996).

Lathyrus palustris var. *pilosus* (Cham.) Ledeb., *Fl. Ross.* **1**: 686 (1842); Ohwi, *Fl. Jap.* 689 (1953), *Fl. Jap. ed. Engl.* 567 (1965), *Fl. Jap. ed. rev.* 802 (1965); Ohwi & Kitagawa, *New Fl. Jap. rev.* 907 (1992).

Lathyrus miyabei Matsum. in *Bot. Mag. (Tokyo)* **16**: 83 (1902); Makino & Nemoto, *Fl. Jap. ed. rev.* 577 (1931).

Lathyrus ugoensis Matsum. in *Bot. Mag. (Tokyo)* **16**: 84 (1902); Makino & Nemoto, *Fl. Jap. ed. rev.* 578 (1931); Makino, *Illust. Fl. Jap.* 408, f. 1224 (1940); Maekawa & al., *Makino New Illust. Fl. Jap.* 316 (1961).

Lathyrus palustris var. *macranthus* (White) Fernald in *Rhodora* **13**: 50 (1911); H. Hara in *J. Jpn. Bot.* **19**: 298 (1943), sub subsp. *pilosus*, & in *J. Fac. Sci. Univ. Tokyo, sect. 3*, **6**: 80 (1952) & 388 (1956).

Lathyrus palustris var. *pseudomyrtifolius* Kudo, *Illust. Medic. Pl. Hokkaido: pl.* 53 (1922).

Lathyrus palustris subsp. *pilosus* (Cham.) Hultén, *Fl. Aleut.* 236 (1937); H. Hara in *J. Jpn. Bot.* **19**: 298 (1943); Hultén, *Circumpolar Pl.* **2**: 162, map 153 (1971); Bässler in *Feddes Repert.* **84**: 420 (1973); H. B. Cui, *Fl. Reip. Popul. Sin.* **42**(2): 281 (1998); H. Ohashi in *Satake & al., Wild Flow. Jap.* **2**: 199 (1982); Ono & al., *New Rev. Makino New Illust. Fl. Jap.* 342 (1989); Ohashi & Endo in *Iwatsuki & al., Fl. Jap. IIb*: 232 (2001).

Lathyrus pilosus var. *miyabei* (Matsum.) H. Hara in *Bot. Mag. (Tokyo)* **52**: 624 (1938); Czerepanov, *Vas. Pl. Russia Adjac. Stat.* 248 (1995).

Lathyrus palustris f. *miyabei* (Matsum.) H. Hara in *J. Jpn. Bot.* **19**: 298 (1943), sub subsp. *pilosus* var. *macranthus*; Bässler in *Feddes Repert.* **84**: 422 (1973), sub subsp. *pilosus*; H. Ohashi in *Satake & al., Wild Flow. Jap. Herb.* **2**: 199 (1982), sub subsp. *pilosus*.

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- Yakovlev G. P., Sytin A. K. and Roskov Yu. R. 1996. Legumes of Northern Eurasia, a Check-list. Royal Botanic Gardens Kew. Kew, Richmond.
- エゾノレンリソウは *Lathyrus palustris* L. の東アジアにみられる有毛形として亜種 subsp. *pilosus* (Cham.) Hultén または変種 var. *pilosus* (Cham.) Ledeb. で区別されることが多い。有毛形は東アジアに多い形であるが、有毛の程度には変異がある。ヨーロッパにも稀に有毛形があるという (原 1943)。*Lathyrus palustris* とエゾノレンリソウとの間に地理的な隔離も認められない。学名は *L. palustris* L. f. *miyabei* (Matsum.) H. Hara となる。
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