Summary: *Lespedeza bicolor* Turcz. var. *intermedia* Maxim. f. *albiflora* Matsum. was published without citation of the type and specimens. Identity of the name was traced by examination of the original description and herbarium specimens of its related taxa. So far the name had been applied to a white-flowered form of *L. japonica* L. H. Bailey, *L. penduliflora* (Oudem.) Nakai or *L. thunbergii* (DC.) Nakai, but these species show discrepancy in the calyx, standard and pods with the original description of the form. We considered that f. *albiflora* Matsum. was correctly referred by Matsumura to a white-flowered form of *L. bicolor*. Neotype of *L. bicolor* f. *albiflora* Matsum. is designated in this paper. *Lespedeza bicolor* var. *alba* Bean is regarded as a synonym of *L. bicolor* f. *albiflora* Matsum.

*Lespedeza bicolor* Turcz. var. *intermedia* Maxim. f. *albiflora* Matsum. was published by Matsumura (1902), but he recorded neither specimens nor locality of the form. Matsumura had worked in the University of Tokyo and his specimens are kept in TI, but no specimens of f. *albiflora* Matsum. were cited by Nakai (1927) nor Akiyama (1988) in their works on *Lespedeza*, which were based mainly on specimens of TI. We had tried to find the type of f. *albiflora* Matsum. and/or the specimens determined as f. *albiflora* by Matsumura in TI in 2008 and 2009 without success.


Hatusima (1967) regarded *Lespedeza bicolor* f. *albiflora* Matsum. as a new combination based on *Desmodium racemosum* var. *albiflorum* Siebold ex Miq. and cited the name as *L. bicolor* var. *intermedia* f. *albiflora* (Sieb.) Matsum. among a synonymy of *L. formosa* (Vogel) Koehne f. *albiflora* (Siebold) Hatus. However, Matsumura (1902) did not cite Miquel’s name at all in the original publication. Although Hatusima's interpretation (1967) is not acceptable, he considered f. *albiflora* Matsum. as a form belonging to *L. formosa*.

Identity of *Lespedeza bicolor* f. *albiflora* Matsum. remains controversial. We reconsidered this problem based on examination of the original description of f. *albiflora* Matsum. and herbarium specimens of the taxa related to the form to clarify its identity in this study.

Matsumura (1902) characterized *Lespedeza bicolor* var. *intermedia* f. *albiflora* among a key to the taxa of *Lespedeza* (Figs. 1, 2). He divided var. *intermedia* into four forms of which f. *albiflora* is distinguished from others as “Calyx-teeth short, upper-teeth obtuse. Racemes short. Corolla white” (Fig. 1). He simply described the calyx-teeth “short” in the first sentence of the diagnosis. He did not circumscribe var. *intermedia* Maxim. by calyx at “a” and “aa” in the key (Fig. 1), but three of the four forms of var. *intermedia* Maxim., f. *acutifolia*, f. *parvifolia*, and f. *grandifolia*, are all regarded as synonyms of *L. bicolor* (Nakai 1927, Akiyama
II. Herbs. Leaflets 3, lateral ones small, kidney-shaped, terminal one the largest. Flowers small, few, in short peduncled umbels. Pod 5-7-articulated, deflexed, recurved, 4-angled. Cult. B. G. 
(K. v. v. v. v.) *C. scorpioides*, Koch.

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I. Flowers large, racemose or paniculate. Calyx 4-lobed; upper-teeth subconnate. Apetalous flowers none. Corolla purple rarely yellowish-white, purple-striped at the base.


(†††) *L. bicolor*, Turcz.

B. Calyx-teeth acute, shorter or longer than the tube.

a. Racemes longer than the leaves. Standard and wings red or purple. Leaflets obtuse or acute.

aa. Standard exceeding the keel. Pod suborbicular acute, puberulent or glabrescent. Yezo; Aomori: Iwakisan; Chokaisan; Aizu; Hitachi: Tsukubasan; Tokio; Izumo. Also cult. Fl. July-Sept.

(†††) *L. bicolor*, Turcz. var. \*intermedia*, Maxim.

Leaflets acute. Flowers often panicled. Otaru; Ichinowatari; Aizu.

\*forma acutifolia*.


\*forma parvifolia*.

Leaflets larger, obtuse. Leaves long-petioled. Iwakisan Chokaitan; Tsukubasan; Aizu; Yumoto; Tokio. Also cult.

\*forma grandifolia*.


\*forma albiflora*.

(15)

Fig. 1. Key to *Lespedeza* by Matsumura in Bot. Mag. (Tokyo) 16: 69 (1902) including original publication of *Lespedeza bicolor* f. *albiflora* Matsum.

(塩Bur.) L. bicolor, Turcz. var. Sieboldi, Maxim.

Hairs on the stems often spreading or reflexed. Leaflets obtuse, densely silky below. Flowers large. Aizu; Tateyama; Togakushiyama.

b. Racemes shorter or rarely longer than the leaves.

aa. Standard purple or red, much exceeding the keel. Calyx-teeth subulate. Leaflets obtuse, often rounded, emarginate. Suffruticose. Racemes very short. Hidusan; Asamayama; Zenkōji; Fuji; Komono; Makosan, Izumi; Tosa; Buzen; Bungo.

(塩Bur.) L. cyrtobotrya, Miq.

bb. Standard yellowish-white striped with purple or violet at the base, shorter than the keel; wings violet or purple. Bracteoles simple, obtuse. Pod oblong acute, reticulate, puberulent. Leaflets usually acute, firm in texture. Shrubs; stems thickest in the genus. Yezo; Nikko; Tsukuba, Hitachi; Usui, Kawanakajima, Shinano; Sagami; Inunakison, Izumi; Nachi, Kii; Ibusuki, Ōmi; Awa, Shikoku; Iwatake, Buzen. Fl. July-Sept.

(塩Bur.) L. Buergeri, Miq.

Leaflets obtuse, often emarginate. Pod obovate-oblong, acute. Formosa.

(塩Bur.) var. Oldhamii, Maxim.

II. Flowers racemose or congested in the axils. Calyx equally 5-parted. Apetalous flowers intermixed. Corolla white, striated with purple.

A. Suffruticose.

a. Racemes shorter than the leaves. Calyx-segments acuminate.

(16)
1988). These taxa have calyxes in which the teeth are shorter than the tube. Moreover, f. *albiflora* was characterized as having “short” calyx-teeth among the four in the key (Fig. 1). Therefore, the first sentence of the diagnosis is appropriate to interpret as “Calyx-teeth shorter than the tube”. Calyx-teeth were compared by Matsumura (1902) with the calyx-tube in the key as “acute, shorter or longer than the tube” at “B” (Fig. 1) and “lanceolate, longer than the tube” at “bb” (Fig. 2). The term “calyx-teeth” in Matsumura is replaced by calyx-lobes in this study, because calyx-teeth are used for the tips of connate upper calyx-lobes.

The second diagnosis “racemes short” indicates no comparable expression in the key, but f. *albiflora* is included in the upper category, “a. Racemes longer than the leaves” (Fig. 1). Thus, the second diagnosis indicates “racemes longer than the (subtending) leaves,
Lespedeza japonica Bailey var. albiflora Nakai, comb. nov.


Lespedeza bicolor var. intermedia f. albiflora Matsumura in Tokyo Bot. Mag. XVI. p. 69 (1902).


Lespedeza bicolor var. albiflora Maximowicz in herb. ex Schneider, l. c. pro syn.


Flores albi.

Hab.

Korea: Chōzen prov. Kōgen (T. Nakai no 5576), spontanea!

This is commonly cultivated in Japanese gardens under the Japanese name Shirobana-hagi (white-flowered Lespedeza). It is not a variety of Lespedeza Thunbergii. The stem is upright and shortly branched; the leaves are obtuse.

Fig. 4. Original publication of Lespedeza japonica var. albiflora Nakai (nom. illeg.) in “Lespedeza of Japan and Korea: 25 (1927)”.

but shorter than the other forms (listed above).” Presumably Matsumura (1902) recognized the racemes of f. albiflora are shorter than those of the other forms of var. intermedia: (f. intermedia), f. acutifolia, f. parvifolia, and f. grandifolia (Fig. 1). Furthermore, f. albiflora is characterized by inclusion in the upper key “aa. Standard exceeding the keel. Pod suborbicular acute, puberulent or glabrescent” (Fig. 1). Throughout the key to f. albiflora, this form was characterized by Matsumura (1902) as follows: Calyx-lobes shorter than the tube, upper-lobes obtuse; racemes longer than the leaves, but shorter than other forms of var. intermedia; corolla white; standard exceeding the keel; pod suborbicular acute, puberulent or glabrescent.

Lespedeza bicolor f. albiflora circumscribed by Matsumura (1902) differs from L. formosa, L. japonica, L. penduliflora and L. thunbergii in having calyx-lobes shorter than the tube. Nakai (1927 on page 23), as an example, clearly illustrated a long-lobed calyx of L. japonica var. albiflora Nakai in which f. albiflora Matsum. was included in a synonymy (Figs. 3, 4). Relative length of standard and keel is different between f. albiflora Matsum. and the other four species: “Standard exceeding the keel” in the former, but “nearly equal to each other or standard slightly longer than keel” in the latter species group. Pods are also different between f. albiflora and the other species: “Pod suborbicular” in f. albiflora, but elliptic, rarely
Fig. 5. Neotype of *Lespedeza bicolor f. albiflora* Matsum. in TUS.
broadly elliptic, in the latter group. Therefore, the previous treatments of *L. bicolor* f. *albiflora* are erroneous.

The features of the calyx-lobes, standard and pods of *Lespedeza bicolor* f. *albiflora*, are similar only to those of *L. bicolor* among the Japanese Macrolespedeza. *Lespedeza bicolor* has a calyx in which the lateral lobes are acute, shorter than the tube, and the lowest lobe is longer, rarely shorter, than the tube. This feature of the calyx of *L. bicolor* almost agrees with that characterized by Matsumura (1902). The standard is longer than the keel and the pod is broadly elliptic to round in *L. bicolor*, features that match with f. *albiflora*. These features of calyx, standard and pods were also described and illustrated by Akiyama (1988) in detail. We consider, therefore, Matsumura (1902) accurately referred f. *albiflora* to *L. bicolor*.

*Lespedeza bicolor* var. *alba* Bean published in 1914 was recognized by Ohwi (1953a, 1953b) as the white-flowered form of the species at the rank of form. On the other hand, Hatusima (1967) regarded the name as a synonym of *L. formosa* (Vogel) Koehne f. *albiflora* (Siebold) Hatus. Bean (1914) distinguished *L. bicolor* from *L. formosa* as *L. sieboldii* by the size of the calyx and shape of the calyx-lobes. His diagnoses correctly referred to *L. bicolor* and *L. sieboldii*. Although we could not examine the type of var. *alba* Bean, we agree with Ohwi’s consideration (1953a, 1953b) that *L. bicolor* var. *alba* Bean is a white-flowered form of *L. bicolor*.

There are no specimens referable to *Lespedeza bicolor* Turcz. f. *albiflora* Matsum. in TI. The holotype of *L. bicolor* f. *albiflora* Tatew. kept in SAPS is the oldest specimen of the white-flowered form of *L. bicolor*. After discussing with Professor H. Takahashi of SAPS, we recognized that the holotype was collected from a cultivated plant as cited below and the original wild plants of the form were lost already in 1937. Accordingly, the neotype of *L. bicolor* f. *albiflora* Matsum. is selected from a specimen collected directly from wild plants in TUS (Figs. 5, 6).

**Lespedeza bicolor** Turcz. f. *albiflora*
Matsum. in Bot. Mag. (Tokyo) 16: 69 (1902), ut sub “var. intermedia Maxim.” [Type: Japan. Honshu. Miyagi Prefecture. Sendai city, Taihaku-san, alt. ca. 70 m. 19 Sep. 1997. Y. Ueno 37496 (TUS 192116, neotype designated here; Fig. 5).

L. bicolor var. alba Bean, Trees Shrubs Brit. Isl. 2: 16 (1914).


Distr.: Japan and Korea.


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References


ハギ標本に基づいてまとめられたが、この論文の中に f. albiflora Matsum. の標本は引用されていない。また、東大標本を詳しく引用した Akiyama (1988) の研究でも f. albiflora Matsum. の標本は引用されていない。われわれも 2008 年と 2009 年とに松村のタイプと同定標本を探したが見つからなかった。f. albiflora Matsum. のタイプは栽培品に基づくものであった（原生地では野生品が 1939 年当時に既に失われていた）。そこで f. albiflora Matsum. のネオタイプとして野生品から採集された Y. Ueno 37496 (TUS) を選定した (Fig. 5)。

イギリスで 1914 年に記載された Lespedeza bicolor var. alba Bean という学名があり、これを大井 (1953a, b) はヤマハギの白花品、Hatusima (1967) はシラハギと同一種とした。原記載にはタイプ標本が引用されておらず、Bean の関連標本を探し見つからなかった。しかし、Bean の Lespedeza bicolor, L. sieboldii および var. alba Bean の原記載を検討してみると、var. alba Bean はヤマハギの白花品と見てよいと思われる。

Summary: Chloranthus japonicus Siebold (Chloranthaceae) with green foliate projections instead of white filamentous stamens was found in Miura Peninsula, Kanagawa Pref., central Japan. These foliate projections, foliose stamens, had three lobes, which were narrowly ellipse in shape, 4–5 mm long and 1–2 mm wide. They looked like trilobate bracts enclosing gynoecia. About three months after anthesis, these stamens fell off from the inflorescence axis with sterile gynoecia. The foliose stamen is considered to be an example of phyllody.

葉状の雄ずいをもつヒトリシズカ（センリョウ科）（大森雄治*, 三浦半島植物友の会）

Yuji OMORI* and Botanical Society of Miura: Chloranthus japonicus (Chloranthaceae) with Foliose Stamens