

Aristolochia vestita, a New Species of Subgenus *Siphisia* (*Aristolochiaceae*) from Zhejiang, China

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A new species of *Aristolochia* L. subgenus *Siphisia* (Duch.) O.C.Schmidt (*Aristolochiaceae*), *A. vestita* Ohi-Toma, Pan Li & Watan.-Toma, is described from Huaxi, Pan'an County, the foot of Mt. Dapan, Zhejiang Province of eastern China. The new species is clearly distinguished by its herbaceous to papery leaves and velvety yellow-brown hairs on stems, petioles, leaves, pedicel, perianth tubes, and ovaries from *A. kaempferi* Willd. and its allies, although its floral morphology is similar to that of *A. kaempferi*. In the phylogenetic relationships within the subgenus, *A. vestita* belongs to the *A. kaempferi* group. Within the group, the phylogenetic relationship is still equivocal but *A. vestita* is distinguished from other species based on its specific chloroplast DNA sequences. A key to the species of the *A. kaempferi* group is also provided.

Key words: *Aristolochia kaempferi* group, *Aristolochia vestita*, China, chloroplast DNA, East Asia, subgenus *Siphisia*.

Aristolochia L., the largest genus of the family *Aristolochiaceae*, comprises over 400 species of lianas, perennial herbs, and shrubs, all of which have zygomorphic tubular flowers with a gynostemium and are distributed in tropical, subtropical, and temperate regions of the world (Ma 1989, 1990, Huber 1993, Kelly and González 2003, Byng 2014). Based on morphology, molecular phylogenetic relationship, and chromosome numbers, the genus is divided into two lineages: one lineage comprises subgenera *Aristolochia*

and *Pararistolochia* (Hutch. & Dalziel) O.C.Schmidt, and the other corresponds to subgenus *Siphisia* (Duch.) O.C.Schmidt (Ohi-Toma et al. 2006).

Subgenus *Siphisia* is characterized by the gynostemium with three segments, paired anthers on the outer surface of each gynostemium segment, U- or horseshoe-shaped perianth tube with a trilobed limb, apically dehiscent capsule, and chromosome number $2n = 32$ (Ohi-Toma et al. 2006, Do et al. 2015). Most species of the subgenus are distributed in Asia (mainly in

(TI), LC153370*, AB353061, AB353056; *A. mollis* Dunn: CHINA. Fujian, T.Ohi-Toma & al. Arist157 (TI), LC153371*, LC153408*, LC153438*; *A. mollissima* Hance: CHINA. Hubei, T.Ohi-Toma & al. Arist147 (TI), LC153372*, LC153409*, LC153439*; CHINA. Jiangxi, E.Li s.n., Arist149 (TI), LC153373*, LC153410*, LC153440*; *A. moupinensis* Franch.: CHINA. Yunnan, J.Murata & al. 2003337 (TI), LC153374*, AB353062, AB353057; *A. nakaoui* F.Maek.: NEPAL. J.Murata & al. SETS14 (TI), LC153375*, AB180119, AB180155; *A. neolongifolia* J.L.Wu & Z.L.Yang: CHINA. Sichuan, J.Murata & al. SETS52 (TI), LC153376*, LC153411*, LC153441*; *A. paracleta* Pfeifer: HONDURAS. Mt.Uyuca, J.Murata & al. JM97-206 (TI), LC153377*, LC153412*, LC153442*; *A. pilosistyla* X.X.Zhu & J.S.Ma: CHINA. Yunnan, J.Murata & al. Arist141 (TI), LC153390*, LC153420*, LC153450*; *A. saccata* Wall.: MYANMAR. Mt. Victoria, J.Murata & al. SETS86 (TI), LC153378*, AB353063, AB353058; *A. salvadorensis* Standl.: cult. in Setsunan University, J.Murata & al. JM00-3 (TI), LC153379*, LC153413*, LC153443*; *A. serpentaria* L., cult. in Setsunan University, J.Murata & al. SETS84 (TI), LC153380*, LC153414*, LC153444*; *A. shimadae* Hayata: TAIWAN. Nantou, J.Murata SETS38

(TI), LC153381*, AB180114, AB180148; JAPAN. Hyogo, K.Watanabe Maki1 (TI), LC153382*, AB180109, AB180129. *A. singalagensis* Korth. ex Ding Hou: cult. in Koishikawa Botanical Gardens, T.Ohi-Toma Arist161 (TI), LC153383*, LC153415*, LC153445*; *A. tanzawana* (Kigawa) Watan.-Toma & Ohi-Toma: JAPAN. Kanagawa, J.Murata A2734 (TI), LC153384*, AB180106, AB180123; JAPAN. Shizuoka, T.Sugawara A2735 (TI), LC153385*, AB180107, AB180126; *A. tomentosa* Sims: cult. in Setsunan University, T.Sugawara SETS77 (TI), LC153387*, LC153417, LC153447*; *A. tricaudata* Lem.: cult. in Koishikawa Botanical Gardens, J.Murata SETS42 (TI), LC153388*, LC153418*, LC153448*; *A. westlandii* Hemsl.: cult. in Koishikawa Botanical Gardens, J.Murata SETS36 (TI), LC153389*, LC153419*, LC153449*; *Aristolochia* sp.: CHINA. Yunnan-15, J.Murata & al. SETS15 (TI), LC153354*, AB180120, AB180153; *Aristolochia* sp. Yunnan-153: CHINA. Yunnan, K.Kawazoe & al. s.n. (TI), LC153392*, LC153422*, LC153452*; *Aristolochia* sp. Guizhou-155: CHINA. Guizhou, T.Ohi-Toma & al. Arist155 (TI), LC153393*, LC153423*, LC153453*; *Aristolochia* sp. Myanmar-162: MYANMAR. Kachin, J.Murata & al. 040881 (TI), LC153395*, LC153425*, LC153455*.

大井・東馬哲雄^a, 渡邊・東馬加奈^b, 李 攀^c, 菅原 敬^d, 邑田 仁^e: 中国浙江省産ウマノスズクサ属オオバウマノスズクサ亜属 (ウマノスズクサ科) の 1 新種 *Aristolochia vestita*

中国浙江省磐安県, 大盤山の麓にある花溪区において, 見慣れないウマノスズクサ科ウマノスズクサ属オオバウマノスズクサ亜属 *Aristolochia* L. subgenus *Siphisia* (Duch.) O.C.Schmidt の植物を発見した. 花がオオバウマノスズクサ *A. kaempferi* Willd. に似ているが, 植物体全体が黄褐色の毛に被われることで区別でき, 葉緑体 DNA による系統解析では特異的な塩基配列により区別できることから, 新種 *A. vestita* Ohi-Toma, Pan Li & Watan.-Toma として発表した. *Aristolochia vestita* は, 系統的にオオ

バウマノスズクサ群 *A. kaempferi* group に含まれることから, 本群に含まれる東アジア産 10 種についての検索表を付記した.

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