

台灣雙子葉植物新見(八)

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[摘要]

本文繼“台灣雙子葉植物新見(七)”之後，乃著者研究本省地區雙子葉植物分類成果報告之一，記述有一新位置種、一新記錄屬、四新記錄種、四新馴化種及一新分佈種。文中乃以傳統分類方法將此等予以分類與鑑定，並分別加以詳細記述與引證標本。彼等之學名及中名分別如次：

(一)新記錄屬

- 1 補骨脂屬 *Psoralea* Linn. (蝶形花科)

(二)新記錄種

- 1 補骨脂 *Psoralea corylifolia* Linn. (蝶形花科)
 2 白花黎豆 *Stizolobium cochinchinensis* (Lour.) Burkart (蝶形花科)
 3 白苞猩猩草 *Euphorbia geniculata* Orteg
 4 藍花娘房藤 *Jacquemontia tamnifolia* (Linn.) Griseb.

(三)新位置種

- 1 台灣郁李 *Prunus japonica* Thunb. var. *caudata* (Koida.) C. H. Ou,
 stat. nova (薔薇科)

(四)新馴化種

- 1 郁李 *Prunus japonica* Thunb. (薔薇科)
 2 賽菊豆 *Phaseolus atropurpurea* DC. (蝶形花科)
 3 西洋香菜 *Eryngium foetidum* Linn. (繖形花科)
 4 黑眼花 *Thunbergia alata* Bojer ex Sims (爵床科)

(五)新分佈種

- 1 扶芳藤 *Euonymus fortunei* Handel-Mazz. (衛矛科)

Contributions to The Dicotyledonous Plants of Taiwan(V III)

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[Abstract]

Described as new materials to Taiwan are one new state, one genus and 4 species of new record, 4 species of new naturalizations. Beside, the species of *Euonymus fortunei* Handel-Mazz. have been found a new distribution area. These taxa are listed as follows:

- (A) New records:
- (a) *Psoralea corylifolia* Linn.
 - (b) *Stizolobium cochinchinensis* (Lour.) Brukart
 - (c) *Euphorbia geniculata* Ortega
 - (d) *Jaquemontia tamnifolia* (Linn.) Griseb.
- (B) New state:
- (a) *Prunus japonica* Thunb. var. *caudata* (Koidz.) C. H. Ou stat. nova
- (C) New naturalizations:
- (a) *Prunus japonica* Thunb.
 - (b) *Phaseolus atropurpurea* DC.
 - (c) *Eryngium foetidum* Linn.
 - (d) *Thunbergia alata* Bojer ex Sims
- (D) New distributions:
- (a) *Euonymus fortunei* Handel-Mazz.

The genus of *Psoralea* is firstly reported from Taiwan.

Introduction

In this paper, the writer propose several new materials to the dicotyledonous plants of Taiwan. Described as new materials are one new state, one genus and 4 species of new record, 4 species of new naturalizations. Beside, the species of *Euonymus fortunei* Handel-Mazz. Which was only collected from the southern parts of Taiwan by the writer has also been found a new distribution area.

These taxa are arranged according to Dr. J. Hutchinson's taxonomic system (1973). Photographs as well as detailed descriptions for each are given, most of the specimens cited in this paper have been collected by the writer himself and Professor F. Y. Lu during the past several years. There are now deposited in Herbarium of Department of Forestry, National Chung-Hsing University (NCUF). Beside, some specimens concerned with this study are deposited in Herbarium of Department of Botany, National Taiwan University (TAI), and Herbarium of Taiwan Forest Research Institute (TFRI). I hope to express my sincere thanks to the curators and superintendents of those herbaria for those herbaria for their gracious help. I hope also to express my special indebtedness to Professor Y. C. Liu of the Chung-Hsing University and Professor F. Y. Lu of the National Chiayi Institute of Agriculture for their generous help and encouragement.

Rosaceae

Prunus japonica Thunb., Fl. Jap. 201, 1784; Chen, Illust. Manu. Chin. Trees & Shrubs 480, f. 376, 1937; Ohwi, Fl. Jap. rev. ed. 765, 1972; Walker, Fl. Okinawa & South. Ryuk. Isl. 533, 1976.

Photo. 1

Shrub or bush up to 1.5m height; branches slender, grayish brown, glabrous or puberulent when young. Leaves ovate or broadly ovate, rarely lanceolate-ovate, 4-7 cm long, 2-3.5 cm wide, acuminate to long-caudate at apex, rounded

or cuneate at base, with 3-6 pairs of lateral veins; glabrous above, sparsely pubescent along the veins beneath; margins acutely double-toothed; petioles 2-3 mm long, sparsely pubescent; stipules lacinate, minutely toothed, about 3.1 mm long, caducous. Flowers appearing just before or with the leaves, 1-3 together; hypanthium campanulate, about 2.5 mm long, glabrous, calyx-lobes 5, the lobes ovate-oblong, about 2.3 mm long, glandular-serrate, 3-nerved, reflexed after flowering, petals obovate, 6 mm long, 3 mm wide, entire, inconspicuously 3-nerved; 3 mm long, shorter than the petals, glabrous; ovary glabrous, about 1.5 mm; styles as long or longer than the stamens, glabrous. Drupes glabular, about 9 mm, dark red when ripe, glabrous and shining.

A mainland China species, Taiwan introduced as an ornamental, escaped and naturalized.

Note: *Prunus japonica* Thunb. is closely related *Prunus japonica* var. *caudata* (Koidz.) C. H. Ou, which native in Taiwan, but it can be distinguished from the hirsute styles and the calyx being pubescent.



Photo. 1
Prunus japonica Thunb.

Specimens examined:

Taichung Hsien: Pinlin, C.H. Ou 6444, 7099; Dadushan, C.H. Ou 6555(NCUF)

Kimen Hsien: Kimen, Y.C. Liu & C.H. Ou 5237; Taiwushen, Y.C. Liu & C.H. Ou, 5706; Pishan, Y.C. Liu & C.H. Ou, 5687. (all NCUF)

Prunus japonica Thunb. var. *caudata* (Koidz.) C.H. Ou stat. nova
Celtis caudata Hance in Ann. Sci. Nat. ser. V. 5:42, 1865.
Prunus pogonostyla Maxim. in Bull. Soc. Nat. Mosc. 54:11, 1897; Matsum. & Hay, Enum. Pl. 119, 1906; Li, Woody Fl. Taiwan 285, 1963; Liu & Su in Fl. Taiwan 3:87, 1977.
Prunus caudata (Hance) Koidz. in Journ. Coll. Sci. Tokyo 34 (2):257, 1913; Sasaki, List Pl. Formosa 213, 1928; Masam, Short Fl. Formosa 85, 1936; Kaneh., Form. Trees. rev. ed. 269, f. 217, 1936.

Note: This variety differs from var. *japonica* of the Mainland China and Japan generally in the hirsute style and calyx. In var. *japonica* the style and calyx are glabrous.

Species examined:

Taipei Hsien: Mt. Kuan-Hing C.C. Chuang 055692, 055693 (TAI)
Hsinchu Hsien: Hsinchu, Kawakami & Shimada 11955 (TFRI)
Taichung Hsien: Hsinchung, Kawakami & Shimada 11956; Shikiang, Yasukawa 11956 (all in TFRI)
Machu Island: Machu, W. C. Huang, 6556 (NCUF)

Papilionaceae

Phaseolus atropurpurea DC. Prodr. 2:395, 1825; Chung & Huang, Legum. Taiw. 80, f. 119, 1965; Rickett, Wild Flow. U.S. 3:244, 1970 Photo. 2

A perennial white-tomentose twining herb; Leaves trifoliate, pubescent, densely white-tomentose beneath, terminal leaflets rhomboid, about 7.5 cm long, 4 cm wide, obtuse at apex, cordate at base, entire or sometimes lobed; lateral leaflets unequal-ovate, about 6 cm long, 4 cm wide, usually lobed; petioles about 6 cm long, tomentose; stipules triangular, about 5 mm long. Inflorescences racemes, with long, axillary peduncles, about 30 cm long, white-tomentose; flowers dark purple, 15-20 mm long; calyx campanulate, tomentose, about 3 mm long, 5-toothed, teeth acuminate-triangular, the lower teeth longer than the others, the upper 2 subconnate; corolla much exserted, standard somewhat orbicular, about 3 cm long, the wings adhering to the keel beyond the claw, the keel prolonged, spirally twisted; stamens diadelphous (9 and 1), ovary sessile, villose, style filiform, twisted through more than

860°; beared along one side below the stigma. Pods linear; spreading; nearly straight, 4-8 cm long, less than 5 mm wide; seeds 5-8, brown, 4 mm long, 2 mm wide.

A native of the central America, now widely distributed in tropical area; Taiwan introduced and naturalized.

Specimens examined:

Taipei city: Agriculture Research Institute, C. C. Chuang et. M. T. Kao 062699, 062700 (Cult.) (TAI)

Taichung city: Dakeng, C. H. Ou 6952 (NCUF)

Nantou Hsien: Fonqui, C. C. Hsu 148336, 148335 (TAI)

Taichung Hsien: Wuju, C. H. Ou 6976 (NCUF)

Note: This species is introduced from Australia in 1966, used as a cover crop and as fodder. Now, escaped and naturalized in the central-southern parts of the islands.

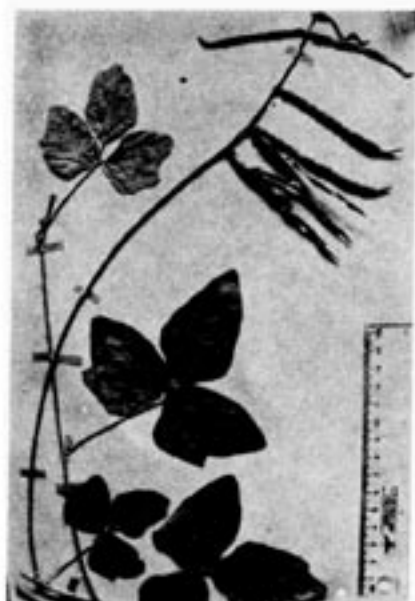


Photo. 2
Phaseolus atropurpureus DC

Psoralea Linn., Sp. Pl. 762, 1753.

Shrubs or shrublets, with black glands or pellucid-punctate; Leaves digitately 3- or more- foliate or rarely with a few additional pairs and pinnate, leaflets entire, or pinnately 3-foliate or 1-foliate with entire or dentate leaflets; stipules embracing the stem by the broad base; flowers purple, blue, rose, or white; capitate, spicate, subracemose or fasciculate, rarely solitary; bracts membranous, each often embracing 2-3 flowers; bracteoles absent; calyx-lobes subequal or the lower larger, upper 2 often connate; petals subequal in length or shorter than the keel; standards ovate or orbicular, contracted into a claw, or appendaged above the claw with small inflexed auricles; wings oblong, subfalcate; keel incurved obtuse, the petals subcoherent in the middle; vexillary stamens free or more or less connate with the others; anthers small, uniform or alternately attached higher up; ovary sessile or shortly stipitate, 1-ovuled; style filiform or dilated at the base, incurved in the upper part, stigma terminal. Fruits ovate, indehiscent, pericarp free from the seed; seeds without a strophiole, with a very short funicle.

About 130 species, distributed in South Africa, Australia, the temperate and tropical regions of Old World. Only one species recently found in Taiwan.

Psoralea corylifolia Linn., Sp. Pl. 764, 1753; Sims, in Bot. Mag. 52:t. 2591, 1803; DC., Prodr. 2:218, 1825; Hook., Fl. Brit. Ind. 2:103, 1879; Makino & Nemoto, Fl. Jap. 595, 1931; Sin. Sci., Icon. Corn. Sim. 2:390, f. 2150, 1972.

Photo. 3

An erect annual or perennial herb, up to 1.5 m high, branches firm, conspicuously glandular-dotted and pubescent. Leaves broadly ovate, 4.5-9 cm long, 3-6 cm wide, obtuse to rounded at apex, rounded to cordate at base, both sides conspicuously dotted with black-brown dots, nearly glabrescent; margins irregular by coarse-denticulate; petioles 2-4.5 cm long; stipules lanceolate; about 0.5 cm long. Inflorescences long-peduncled, axillary, capitate-racemous; Flowers small, about 3-5 mm long; calyx campanulate,

5-lobed, the lobes lanceolate, the upper ones connate, the lowest longest, densely dotted; corolla pale violet or white, little exserted; stamens 10, connate. Pods ovate, black, glandular-dotted, about 5 mm long, 1-seeded, fragrant.

Native to China, Himalaya, India and Zeylon. Taiwan, introduced and naturalized, common in waste places.

Specimens examined:

Taichung Hsien: Dali, C. H. Ou 7052(NCUF)

Note: The present species is a new record to Taiwan. It can be easily identified by its dense, brown glandular dots and fragrant seeds.

Stizolobium cochinchinensis (Lour.) Burkart in Descr. Pl. Cult. 1:503, 1959; Fu, Illust. Import. Pl. Chin.

5:672, 1955; Maekawa in Acta Phytotax. Geobot. 33:248, 1982. Photo. 4

Marcanthus cochinchinensis Lour., Fl. Cochinch. 2:563, 1973.

Carpopogon niveum Roxb., Hort. Beng. 54, 1814; Fl. Ind. 3:285, 1832.

Stizolobium niveum O. Kuntze, Gen. Pl. rev. 208, 1891.

Mucuna pruriens f. *cochinchinensis* (Lour.) Back in Fl. Jav. 1:629, 1963.

An annual vine, sparsely white-pubescent. Leaves trifoliate, leaflets ovate-rhomboid, 5-17 cm long, 3-10 cm wide, obtuse at apex, rounded or truncate at base, herbaceous, gray-hairy on both surfaces; petioles about 14 cm long. Racemes axillary, pendulous, 10-20 cm long, many-flowered, flowers 3-nate on tubercles; calyx-tube campanulate, 2 upper teeth connate into an upper lip, lower most tooth longest; corolla white, turning black when dry, the standards half as long as the wings, the wings about 4 cm long, slightly shorter than the keel which is beaked, incurved, bisauriculate at base; stamens diadelphous, the anthers dinorphic, alternately long, basifixed. Ovary sessile, densely white-tomentose, style white tomentose, about 2.5 cm long, beardless. Pods linear, more or less sigmoid, 8-12 cm long, with prominent side ridge and cover with white appressed hairs. Seeds 4-5, oblong, flattened, ash-colored.

Probably native of southern Asia and Java, Taiwan introduced and naturalized.

Specimens examined:

Taichung city: Taichung, C. H. Ou, 7087(NCUF)

Yunling Hsien: Kukung, C. H. Ou, 9091(NCUF)

Note: This species is introduced to Taiwan for a long time, mainly used as green manure, now escaped and naturalized. It is closely related *Stizolobium hassjoo* Piper & Tracy, but it can be easily identified by its white flowers and longer racemes.



Photo. 3

Psoralea corylifolia Linn.



Photo. 4

Stizolobium cochinchinensis (Lour.) Burk.

Euphorbiaceae

Euphorbia geniculata Orteg. Nov. Pl. Rav. Hort. Matr. Decad. 18, 1797; Boiss. in DC 72, 1862; Stone, Fl. Guam. 6:374, 1970; Shaw, Euphorb. Born. 111, 1975 (in synonymum) Photo. 5

Euphorbia pranifolia Jacq., Hort. Schoenb. 3:15, t.277, 1798; Backer & Bakh., Fl. Java 1:502, 1963

Poinsettia geniculata Klotz. & Garcke in Monatsh. Akad. Berl. 253, 1859; Degener, Fl. Haw. fam. 190, 1932.

An erect herb to about 1 m high; stems teret, more or less hairy; stipules gland-like. Leaves alternate except the basal and apical ones which are opposite, blades all green but the bracteal leaves basally white or pink-blotched, glaucous beneath, ovate or oblong-rhomboidal, 5-10 cm long, 3-5 cm wide, acute-acuminate at apex, obtuse to rounded at base; margins unlobed, obscurely dentate-serrate or entire; petioles 1-3 cm long. Involucres cylindrical-turbinate, 3.5-4 mm high, divided into 5 fimbriate segments along the upper margin; glands obconical with orbicularly excavate apex, yellow or red. Fruits 3.5-4 mm long, seeds about 3.2 mm long, angular, sharply keeled on one side, tuberculate.

Native of Mexico, Texas, the West India; introduced to Taiwan presumably unintentionally; now a rather common weed in waste ground and roadsides, especially in dry waste places.

Specimens examined:

Taichung city: Peitung, C. H. Ou 6439(NCUF)

Taichung Hsien: Pinling, C. H. Ou 7098(NCUF)

Kinen Hsien: Kicheng, C. H. Ou & C. K. Lu, 6565(NCUF)

Note: This species is a new record to Taiwan, Very similar to *Euphorbia heterophylla* Linn., but it can be distinguished from the latter by the unlobed leaves and white base of bracteal leaves.



Photo. 5

Euphorbia geniculata Orteg

Celastraceae

Euonymus fortunei (Turcz.) Handel-Mazz., Symb. Sin. Pl. 7:660, 1933; Matsushima, Fl. Ryuk. 383, 1971; Ou in Quant. Journ. Chin. For. 9(2):120, 1976 Photo. 6

Elaeodendron fortunei Turcz. in Bull. Soc. Nat. Mosc. 36(1):603, 1863

Euonymus austro-livkuiensis Matsushima in Sci. Bull. Agr. Hom. Econ. Div. Ryuk. Okin. 3:20, 1956

Euonymus fortunei Handel-Mazz. var. *radicus* (Miq.) Rehder in Journ. Arnold Arb. 19:77, 1938; Ohwi, Fl. Jap. rev. ed. 858, 1971

Euonymus radicus Miq. in Ann. Ludg. Bot. 3:202, 1867

Euonymus japonica var. *radicus* Miq. in l.c. 2:86, 1865

A large epiphytic shrub, branchlets more or less scandent, glabrous. Leaves elliptic to obovate-elliptic, bluntly acute at apex, cuneate at base, 3-6 cm long, 2-3.5 cm wide, coriaceous, glabrous, crenulate-serrate at the margin, midribs elevated on both surfaces; petioles 5-10 mm long. Flowers in cymes, axillary, peduncles 2.5-3.5 cm long,

pedicels 3-5 mm long; petals 4, elliptic, 2.5 mm long. Capsules broadly globose, 5-6 mm across, 1-4-locular, with persistent style at the apex.

Taiwan, recently found at the high altitudes in southern and central parts.

China, Japan and Ryukyus. Taiwan, recently found at the high altitudes in southern and central parts.

Specimens examined:

Kaohsiung Hsien: Quaiiku, C. H. Ou, 1285(NCUF)

Nantou Hsien: Wusha, C.H.Ou 7063 (NCUF)

Note: The present species is very similar to *Eusynymus echinatus* Wall. in most features, but differs from it in having glabrous fruits.



Photo. 6 *Euonymus fortunei*
(Turcz.) Handel-Mazz.

Convolvulaceae

Jacquemontia tamnifolia (Linn.) Griseb., Fl. Brit. W. Ind. 474, 1861; Verdcourt in Fl. Trop. East Afr. Convol. 35, f. 10, 1963; Rickett, Wild Flow. U. S. 2:431, pl. 159, 1967; Hatusima, Fl. Ryuk. 507, 1971; Hatusima et Amana, Fl. Ryuk. 118, 1977; Nagada, Illust. Jap. Alien pl. 85, f. 173, 1972; Walker, Fl. Okina. & South. Ryuk. Isls. 873, 1976.

Photo. 7

Ipomea tamifolia Linn., sp. Pl. 162, 1753.

Annual twiner, stems adpressed pilose with silky hairs when young, glabrous when mature. Leaves alternate, with petioles 2-6 cm long, blades ovate to orbicular, 5-12 cm long, 3-6 cm wide, membranous, acuminate to acute at apex, round to cordate at base, entire, thinly pilose with brown hairs, veins and veinlets conspicuous. Inflorescences dense capitate cymes, peduncles as long or longer than the leaves, bracts conspicuous, leaflike, as long or longer than the head. Flowers sessile, blue or violet, sepals triangular-linear, about 1 cm long, densely brown-hairy; corolla funnel-shaped, as long or longer than the sepal, ephemeral; stamens 5, inserted on the corolla-tube, include, the filaments filiform; disc none. Ovary 2-loculed, style filiform, the stigmas 2, elliptic, flattened. Capsule globular, about 5 mm across, usually 4-valved; seeds 4, dark brown, with short tuft.

Native of tropical America. Taiwan, know from Taichung and vicinity, usually found on streamsides.

Specimens examined:

Taichung City: Taichung Sugar Refinery, C.H. Ou 7035(NCUF)

Note: This species is a new record to Taiwan, characterized by its dense cupitate cymes with conspicuous leaf-like bracts.

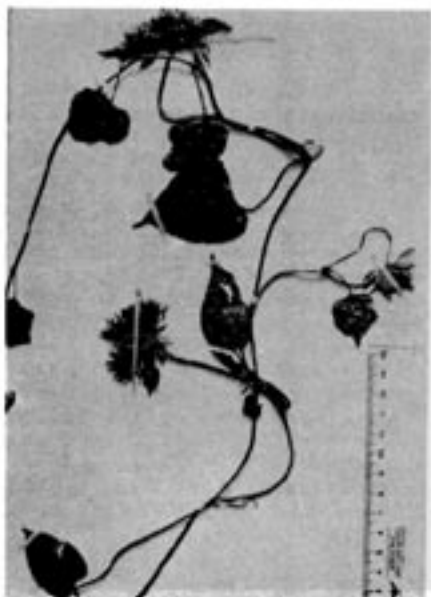


Photo. 7 *Jacquemontia tamnifolia* (Linn.) Griseb.

Umbelliferae

Eryngium foetidum Linn., Sp. Pl. 232, 1753; Ridley et al. in Fl. Mal. Penn. 1:870, 1922; Backer & Backh., Fl. Java 2:174, 1965; Sin. Sci., Icon. Corm. Sin. 2:1053, f. 3836, 1972. Photo. 8

An perennial glabrous erect herb, up to 60 cm high, strongly smelling of bugs when bruised; taproot stout. Leaves basal and cauline, sessile, coriaceous, lanceolate to oblanceolate, 7-25 cm long, 1-3 cm wide, acute at apex, attenuate at base, glabrous on both surfaces, margins sharply serrate. Heads spiciform, 0.5-2 cm long, finally combined into a widely branched corymb; bracts rigid, deeply incised, aculeate-dentate; involucrel bracts 5-7, widely patent, stiff, spiny-dentate; corolla very small, white or pale green. Fruits ovate, about 1 mm long, brown-tuberculate.

Native of American. Taiwan, introduced about 60 years ago and cultivated for spice. Now escaped and naturalized in central parts at medium altitudes, very common in shade-wet places.

Species examined:

Nantou Hsien: Puli, S. Sasao, s.n. (MCUP);
Baibara, Y. Saito s.n. (NCUF); Sasaki,
sin. (TAI) Suzuki, 18608 (TFRI);
Lienhuachi, Sasaki, s.n. (NCUF); M.T.
Kao 083457; Mori 083458 (TAI);
Chitou, C. H. Ou 2164 (NCUF)

Yunling Hsien: Chaolin, C. H. Ou 7054,
(NCUF)

Java: Tjibodas, T. Kawakami, 18609 (TFRI)



Photo. 8

Eryngium foetidum Linn.

Acanthaceae

Thunbergia alata Bojer ex Sims, Bot. Mag. 52:t. 2591, 1825; Clarke in Hook. Fl. Brit. Ind. 4(2):391, 1885; Rickett, Wild Flow. U. S. 2: 447, 1967; Chen & Hu, List Exot. Ornament. Pl. Taiw. 338, 1976. Photo. 9

A Perennial twiner, stems square, somewhat hairy. Leaves opposite, ovate, about 4 cm long, 2.5 cm wide, acute at apex, sagittate or hastate at base; margins entire or exsculptate-dentate, green and villose above, white-tomentose beneath, 5-nerved; petioles the length of the leaves, winged to very near their insertion into the stem. Peduncles axillary, one-flowered; calyx of two cordate-acuminate, 3-nerved, keeled segments, tomentose; corolla usually orange or yellow with a dark purple tube, about 3 cm long, tube curved, dilated upwards, purple, about 1.5 - 2 cm long, dorsally with a bulge embracing stamen and style, inside with a ring of hairs near the insertion of stamens, limb 3-4 cm across; stamen 4, inserted, filaments 4-6 mm long; anther-cells fimbriated and basally spurred, spur linear, about 2.5 mm long; style longer than the stamens, about 1.2 cm long, stigma broad and concave, 2-lobed, the posterior one with convolute margins. Fruit a capsule, hairy, subglobose, bearing a long strong solid beak; seeds per cell 2, subglobose, irregularly reticulate-ribbed at dorsal sides.

A native of tropical Africa, introduced to Taiwan as an ornamental. Now, a rather common weed, especially found on the alluvial lands

Specimens examined:

Taichung City: Taichung, M.T. Kao. 179276 (TAI)

Nantou Hsien: Nantou, C. H. Ou 4806 (NCUF)

Yunling Hsien: Kukun, C. H. Ou 7100 (NCUF)

Kaoshiung Hsien: Bumpingshan, T. C. Huang, 175030 (TAI)

U. S. A.: Missouri, 23962 (TAI)

Note: *Thunbergia alata* Bojer ex Sims is characterized by the central dark corolla, wing-like petioles and broad stigma.



Photo. 9
Thunbergia alata Bojer
ex Sims

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