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Trichosporeae**

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Edited by

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GESNERIACEAE*

Butt, B. L. 1962. Studies on the Gesneriaceae of the old world. 24: Tentative keys to the tribes and genera. Not. Bot. Gard. Edinb. 26: 205-220.

- A. Rhizomes with fleshy scales; inflorescences slender racemes, frequently with slender spikes of sterile flowers; fruit a capsule; seeds with short appendages on both ends (Tribe 1. Titanotricheae) 1. *Titanotrichum*
- A. Rhizomes without fleshy scales; inflorescences dichasial cymes
 - B. Herbaceous subshrubs; fruit an ellipsoid or oblong berry (Tribe 2. Cyrtandreae)
 - C. Corolla rotate or rotate-campanulate; stamens 4; stigma capitate; fruit ellipsoid, ca. 5 mm long 2. *Rhynchotechum*
 - C. Corolla tubular; stamens 2; stigma peltate, bilobed; fruit oblong, ca. 1.5 cm long 3. *Cyrtandra*
 - B. Perennial herbs; fruit a cylindrical or linear capsule
 - C. Terrestrial herbs; seeds without appendages (Tribe 3. Didymocarpeae)
 - D. Corolla rotate, tube short; stamens 5, fertile, adnate into a tube around style, anthers with elongate appendages at apex; staminodes lacking 4. *Conandron*
 - D. Corolla funnellform or tubular; stamens 2, free, anthers without elongate appendages; staminodes 3
 - E. Stems slender, erect, leafy; leaves opposite, glabrous; corolla tube ampliate 5. *Hemiboea*
 - E. Stems stout, leafless; leaves radical, densely white pubescent; corolla tube slender, not ampliate 6. *Opithandra*
 - C. Epiphytic herbs; corolla tubular; seeds with long hair-like appendages at both ends (Tribe 4. Trichosporeae)
 - D. Stamens 4, staminodes absent, exserted; leaves entire; appendages of seeds much longer than body of seed 7. *Aeschynanthus*
 - D. Stamens 2, staminodes 2, included; leaves serrate; appendages of the seed subequaling the body of seed .. 8. *Lysionotus*

Tribe 1. Titanotricheae

1. *Titanotrichum* Soler.

1. *Titanotrichum oldhamii* (Hemsl.) Soler. in Ber. Deutsch. Bot. Ges. 27: 400 (1909).

Rehmannia oldhamii Hemsl. in J. Linn. Soc. Bot. 26: 194 (1889).

Matsumuria oldhamii (Hemsl.) Hemsl. in Kew Bull. 1909: 361 (1909).

Japanese name: Matsumurasō.

Perennial herbs 25-50 cm tall. Rhizomes prostrate, with thick semi-orbulate fleshy scales. Stems erect, terete below, obscurely quadrangular above, hirsute. Leaves opposite, thick membranaceous; frequently one leaf of each pair larger; petiole 0.5-4 cm long, hirsute; blade oblong, elliptic or ovate, 4-16 cm long, 2-7 cm wide, apex acute to acuminate, base obliquely acute to cuneate, attenuate into petiole, unequally acute-serrate, hirsute on both surfaces, midrib and arched lateral nerves 3-6 pairs raised on lower surface. Flowers July to October. Inflorescences terminal, racemose, slender, 10-30 cm long, loosely many-flowered, rachis hirsute. Bracts linear-lanceolate to linear, acuminate, 7-15 mm long, hirsute. Pedicel 5-15 mm long, spreading hirsute. Calyx campanulate, 7-10 mm long, hirsute, deeply 5-lobed; lobes lanceolate, acuminate, 6-9 mm long, 1.5-2 mm wide. Corolla tubular, ampliate, bilabiate, yellow outside, orange-red inside, 3-4 cm long; tube 2.5-3.5 cm long, 1

cm across, sparsely pilose outside; upper lip bilobed, lower lip 3-lobed, lobes orbiculate, 6-7 mm long and wide. Stamens 4, slightly didynamous, adnate to near base of corolla tube, ca. 2.5 cm long, glabrous, anthers broadly orbiculate, ca. 1.5 mm long, 2 mm wide. Staminode 1, at posterior base of corolla tube, linear, ca. 2 mm long. Style filiform, ca. 2.5 cm long, stigma small, capitate. Ovary ellipsoid, pubescent. Capsule globular-ovoid, ca. 7 mm long, 6 mm across, pubescent. Seeds ellipsoid, with short appendages at both ends. Slender spiked inflorescences with rudimentary flowers are frequently formed at apex of stems and on upper part of racemes with normal flowers. The rudimental flowers are often in globose sessile clusters of 1-3 mm in diam., and have a smlinear bract-like scale at base. The rudimentary flowers have 5 setaceous sepals, 0.5-1 mm long and a rudimental pistil.

Chromosome number: $2n = 40$.

Japan: S. Ryukyu (Ishigakijima and Iriomote-jima). On moist cliffs; lowlands.

Distr.: S. Ryukyu, Taiwan and S. China.

Icones: Stapf in Hook., Icon. Pl.: t. 2936 (1911); Sealy in Bot. Mag. n. s.: t. 78 (1949); Li et al., Fl. Taiwan 4: t. 1157 (1978); Hatusima & Nakajima, Flow. Ryukyu: photo. 439 (1979); Makino, rev. ed.: t. 2798.

* T. Yamazaki.

Tribe 2. Cyrtandreae

2. *Rhynchotechum* Bl.

1. *Rhynchotechum discolor* (Maxim.) Butt in Not. Bot. Gard. Edinb. 24: 37 (1962).

Isanthera discolor Maxim. in Bull. Acad. Sci. St.-Pét. 19: 538 (1874).

Japanese name: Yamabiwasō.

Erect perennial herbaceous subshrubs 20–50 cm tall. Stems generally not branched, terete, tomentose. Leaves alternate, chartaceous, lower ones caducous at flowering; petiole 1.5–5 cm long, soft pubescent, narrowly winged; blade oblong or oblanceolate, 6–20 cm long, 2–5 cm wide, apex short acute, base gradually narrowed, attenuate into petiole, subacute-serrulate, densely woolly when young, later glabrescent except on nerves on lower surface, midrib and lateral nerves 7–11 pairs raised on lower surface. Flowers August to October. Inflorescences axillary, dichasial cymes, 3–12 cm long, many-flowered, densely yellowish-brown woolly. Rachis slender, 1–6 cm long, pedicel 3–15 mm long. Bracts narrowly lanceolate, acute, 5–10 mm long. Calyx narrowly campanulate, 7–9 mm long, densely woolly, 5-lobed almost to base; lobes linear or linear-lanceolate, acuminate. Corolla rotate-campanulate, more or less bilabiate, white, long woolly

outside, ca. 4 mm long, subequally 5-lobed; lobes widely elliptic, rounded ca. 3 mm long, 2–2.5 mm wide. Stamens 4, ca. 2 mm long, glabrous; anthers orbiculate, ca. 0.8 mm long. Style stout, straight, filiform, ca. 3 mm long, stigma punctate. Fruit a berry, white, ellipsoid, ca. 5 mm long, 3 mm across, covered by persistent calyx, style persistent. Seeds ellipsoid, ca. 0.2 mm long.

Chromosome number: $2n = 20$.

Japan: Ryukyu (from Amami-oshima to Sakishima Islands). In evergreen forests in lowlands.

Distr.: Ryukyu, Taiwan and the Philippines.

Icones: Terasaki, rev. ed.: t. 2804; Liu et al., Fl. Taiwan 4: t. 1156 (1978).

var. *austrokiushiense* (Ohwi) Ohwi, Fl. Jap. Engl. ed.: 813 (1965).

Isanthera discolor Maxim. var. *austrokiushiensis* Ohwi in Acta Phytotax. Geobot. 7: 29 (1938).

Japanese name: Tamazaki-yamabiwasō.

Inflorescences globose glomerules.

Japan: S. Kyushu (Yakushima and Tanegashima) and Ryukyu (Okinawa-jima and Iriomote-jima).

Icones: Makino, rev. ed.: t. 2795, as var. *discolor*.

3. *Cyrtandra* J. R. et G. Forst.

1. *Cyrtandra cumingii* C. B. Clarke in DC., Monogr. Phan. 5: 263 (1883).

Cyrtandra yaeyamae Ohwi in J. Jap. Bot. 13: 339 (1937).

Japanese name: Mizubiwasō.

Erect evergreen herbaceous shrubs 1.2–2 m tall. Stems not branched, obscurely quadrangular, with many leaf scars, densely pubescent while young, soon glabrous. Leaves opposite, chartaceous, more or less fleshy; petiole 3–5 cm long, narrowly winged upward, glabrous; blade oblong, 25–40 cm long, 10–16 cm wide, apex short acuminate, base acute, attenuate into winged petiole, upper surface glabrous, green, lower surface pale green and puberulent on nerves, midrib and 11–15 pairs of arched lateral nerves raised on lower surface. Flowers June to July. Inflorescences in upper leaf axils, short dichasial cymes, 3–4 cm long, flowers 6–10. Rachis stout, 7–13 mm long, puberulent. Pedicel very short. Bracts membranaceous, outer ones largest, abruptly decreasing in size upward, outer ones oblong-ovate, acute, 2–4 cm long, 1–1.5 cm wide, loosely dentate on upper half of

margin, inner ones lanceolate, 1–1.5 cm long, 0.3–0.5 cm wide, 1–2 dentate near apex. Calyx campanulate, ca. 8 mm long, 4 mm across, glabrous, irregularly 5-lobed; lobes lanceolate, acuminate, ca. 3 mm long. Corolla tubular, bilabiate, white, 2.5–3 cm long, glabrous, tube stout, 2–2.5 cm long, 0.8 cm across; upper lip 2-lobed, lower lip 3-lobed, lobes orbiculate, 5–7 mm long and wide. Stamens 2, posterior, ca. 1 cm long, adnate to middle of corolla tube, glabrous; anthers ellipsoid, ca. 2 mm long. Staminodes 2, anterior, adnate to middle of corolla tube, filiform, ca. 3 mm long. Ovary oblong-lanceolate, ca. 6 mm long, 3 mm across, glabrous, gradually attenuate into the stout style. Style ca. 7 mm long, stigma peltate. Fruit a berry, oblong, white, ca. 1.5 cm long. Seeds ellipsoid, ca. 0.3 mm long.

Japan: Ryukyu (Iriomote-jima). Moist evergreen forests; lowlands.

Distr.: S. Ryukyu and the Philippines.

Icones: Hatusima & Nakajima, Flow. Ryukyu: photo. 438 (1979); Makino, rev. ed.: t. 2796.

Tribe 3. *Didymocarpeae*4. *Conandron* Sieb. et Zucc.

1. *Conandron ramondioides* Sieb. et Zucc. in Abh. Mat.-Phys. Baier. Akad. Wiss. 3: 730, t. 3, f. e 1-7 (1843).

Japanese name: Iwa-tabako.

Perennial herbs. Rhizomes short prostrate, few branched, densely brown long pilose on upper parts, with one or two leaves at base of scape. Leaves pendulous, membranaceous; petiole 1-15 cm long, winged, glabrous, irregularly and acutely dentate; blade elliptic or elliptic-ovate, 4-25 cm long, 2-12 cm wide, apex short acuminate, base acute, attenuate into winged petiole, irregularly and acutely dentate, glabrous on both surfaces, midrib and 3-7 pairs of lateral nerves raised on lower surface. Flowers August. Inflorescence dichasial cyme; flowers several to many, loose on apical part of a scape. Scape 1-2, 10-15 cm long, slender, glabrous. Bracts linear, acute, 1-5 mm long, glabrous. Pedicel 3-18 mm long, glabrous or sparsely long pilose at base. Calyx campanulate, 5-6 mm long, glabrous, 5-lobed almost to base; lobes linear-lanceolate, acuminate. Corolla rotate, purple with a yellow center, ca. 2 cm across, 5-lobed; lobes narrowly triangular-ovate, acute, ca. 7 mm long, 3 mm wide. Stamens 5, ca. 5 mm long, glabrous, connate to a tube surrounding style; filaments very short; anther bodies ca. 2 mm long, tapering gradually into slender appendages, ca. 3 mm long. Style filiform, ca. 8 mm long, stigma small, capitate. Capsule cylindrical, acuminate, 10-15 mm long, 2.5-3 mm across (rarely ellipsoid, ca. 7 mm long, 5 mm across), glabrous. Seeds fusiform, acute at both ends, ca. 0.7 mm long, without appendages.

Chromosome number: $2n = 32$.

Japan: Honshu (southward from Fukushima Pref.), Shikoku and Kyushu. Moist rocky cliffs; lowlands to 1700

m.

Distr.: Japan and C. China.

Icones: Kitamura et al., Herb. Pl. 1: t. 39 312, f. 41; Terasaki, rev. ed.: t. 2806; Satake et al., Herb. Pl. 3: photo. 109 5; Makino, rev. ed.: t. 2783.

Note: Plants with long pilose hairs on the scapes and pedicel have been named f. *pilosum* (Makino) Ohwi (Bull. Nat. Sci. Mus. Tokyo, no. 33: 86, 1953). They occur in C. Honshu (Chiba, Kanagawa, Yamanashi, Shizuoka and Aichi Pref.). The white flowered form has been named f. *leucanthum* (Makino) Okuyama (J. Jap. Bot. 30: 43, 1955).

var. *taiwanense* Masamune in Trans. Nat. Hist. Soc. Formos. 29: 64 (1939).

Conandron ramondioides Sieb. et Zucc. var. *ryukyense* Masamune in Sci. Rep. Kanazawa Univ. 4: 69 (1970).

Japanese name: Taiwan-iwatabako, Iriomote-iwatabako.

Leaves generally shallowly irregularly subcrenate-dentate (rarely acutely dentate). Sepals triangular-linear, 5-8 mm long, 0.5-1 mm wide, long pilose on margin. Scapes and pedicel sparsely long pilose, sometimes glabrous. Capsule ellipsoid, ca. 7 mm long, 3 mm across.

Japan: S. Ryukyu (Iriomote-jima).

Distr.: Ryukyu and Taiwan.

Icones: Li et al., Fl. Taiwan 4: t. 1151 (1978), as var. *ramondioides*; Hatusima & Nakajima, Flow. Ryukyu: photo. 437 (1979), as var. *ramondioides*.

Note: Plants of Taiwan generally differ from those form of Ryukyu in having longer slender sepals.

5. *Hemiboea* C. B. Clarke

1. *Hemiboea bicornuta* (Hayata) Ohwi in J. Jap. Bot. 12: 662 (1936).

Chirita bicornuta Hayata, Icon. Pl. Formos. 3: 152 (1913).

Didymocarpus bicornuta (Hayata) S. Y. Hu in J. Arnold Arb. 61: 88 (1980).

Japanese name: Tsunogirisō.

Erect perennial herbs 0.3-1 m tall. Rhizomes creeping, several branched. Stems obscurely quadrangular, glabrous, more or less fleshy. Leaves opposite, thick membranaceous; petiole 0.5-4.5 cm long, glabrous; blades oblong or oblong-lanceolate, slightly falcate, 5-20 cm long, 1.5-6 cm wide, apex acuminate, base obliquely acuminate, attenuate into petiole, teeth minutely crenate apiculate, glabrous on both surfaces, midrib and 4-10 pairs of abruptly arched lateral nerves raised on lower

surface. Flowers August to October. Inflorescences dichasial-cymose, in upper leaf axils, appearing terminal, 2-4-flowered, 3-6 cm long. Rachis 1.5-4 cm long, glabrous. Bracts membranaceous, widely orbiculate-ovate, subacute, incurved, 1-1.5 cm long and wide. Pedicel 0.5-2 mm long in flower, 3-6 mm long in fruit, glabrous. Calyx campanulate, deeply 5-lobed almost to base; lobes membranaceous, oblong-lanceolate, acute, 8-10 mm long, 2-3 mm wide, glabrous. Corolla tubular, bilabiate, white with purple spots, 3-4 cm long, glabrous outside; tube 2-2.5 cm wide, 0.8-1 cm across, pilose on upper inside, with a villous ring near base; upper lip 2-lobed to near middle, lobes orbiculate, 8-10 mm long and wide, lower lip 3-lobed near middle, lobes orbiculate, 7-8 mm long and wide. Stamens 2, included, adnate to laterally near middle of corolla tube, 1.2-1.5 cm long, glabrous; anthers broadly

ellipsoid, ca. 2 mm long. Staminodes 2, adnate to lower sides of corolla tube, filiform, ca. 5 mm long. Style filiform, stout, 5–15 mm long. Ovary lanceolate, surrounded by a ring at base, ring ca. 1 mm tall, glabrous. Capsule cylindrical-lanceolate, slightly falcate, acuminate, 2.5–3 cm long, 3–4 mm wide. Seeds small, narrowly

ellipsoid, acute at both ends, ca. 0.2 mm long.

Japan: Ryukyu (Ishigakijima, Iriomote-jima and Yonagunijima). In moist evergreen forests in lowlands.

Distr.: Ryukyu and Taiwan.

Icones: Li et al., Fl. Taiwan 4: t. 1153 (1978); Makino, rev. ed.: t. 2797.

6. *Ophithandra* Buñt

1. *Ophithandra primuloides* (Miq.) Buñt in Not. Bot. Gard. Edinb. 22: 303 (1958).

Boea primuloides Miq. in Ann. Mus. Bot. Lugd.-Bat. 3: 190 (1867).

Didymocarpus primuloides (Miq.) Maxim. in Bull. Acad. Sci. St.-Pét. 19: 536 (1874).

Oreocharis primuloides (Miq.) Benth. et Hook. f. ex C. B. Clarke in A. DC., Monogr. Phan. 5: 63 (1883).

Chirita primuloides (Miq.) Ohwi in J. Jap. Bot. 12: 662 (1936).

Japanese name: Iwagirisō.

Perennial herbs. Rhizomes stout, short prostrate, with many leaves at apex. Leaves thick membranaceous, more or less fleshy; petiole 2–10 cm long, densely long pubescent; blade ovate to widely ovate, 4–10 cm long, 3–8 cm wide, apex subacute, base rounded or shallowly cordate, large crenate- or subacute-dentate, densely long pubescent on both surfaces, midrib and 3 or 4 pairs of subpalmate lateral nerves slightly raised on lower surface. Flowers May to July. Scapes 1–5 in leaf axils, 7–20 cm long, flowers 5–10, horizontally spreading in umbellate-dichasial cymes. Pedicel 1–2 cm long in flower, to 3 cm long in fruit, spreading pubescent. Bracts linear, acute, 3–5 mm long, white pubescent. Calyx broadly campanulate, 5–7 mm long, deeply 5-lobed; lobes lanceolate, acute, 4–

5 mm long, pubescent. Corolla tubular, bilabiate, purple with dark lines, 1.5–2 cm long; tube 10–15 mm long, 3–4 mm across, puberulent outside; upper lip 4–5 mm long, deeply bilobed, lobes orbiculate, spreading upward, lower lip slightly longer than upper one, 6–7 mm long, 3-lobed, lobes widely ovate, obtuse, straight, 5–6 mm long. Stamens 2, adnate below middle of corolla tube, ca. 3 mm long, glabrous. Staminodes 2, adnate near middle of corolla tube, linear, ca. 1.5 mm long. Style narrowly spatulate, ca. 1 mm long. Capsule linear-cylindrical, acute, 2.5–4 cm long, 0.4 cm across. Seeds fusiform, acute at both ends, ca. 0.5 mm long.

Chromosome number: $2n = 34$.

Japan: W. Honshu, Shikoku and Kyushu. On moist cliffs along streams; 100–300 m. Endemic.

Icones: Kitamura et al., Herb. Pl. 1: t. 39 314; Terasaki, rev. ed.: t. 2807; Satake et al., Herb. Pl. 3: photo. 110 1; Makino, rev. ed. t. 2794.

Note: The white flowered form is here named f. *albiflora* (Makino) Yamazaki, comb. nov. (*Oreocharis primuloides* (Miq.) Benth. et Hook. f. var. *albiflora* Makino in J. Jap. Bot. 6: 5, 1929; *Chirita primuloides* (Miq.) Ohwi f. *albiflora* (Makino) Hara, Enum. Sperm. Jap. 1: 289, 1948).

Tribe 4. Trichosporeae

7. *Aeschynanthus* Jack

1. *Aeschynanthus acuminatus* Wall. ex DC., Prodr. 9: 263 (1845).

Japanese name: Nagami-kazura.

Epiphytic evergreen scandent vines. Stems obscurely quadrangular when young, later terete, glabrous. Leaves opposite, thick chartaceous, more or less fleshy; petiole 4–8 mm long, glabrous; blade narrowly elliptic, oblong or oblong-ob lanceolate, 6–8 cm long, 1.5–2.5 cm wide, apex acuminate, base gradually narrowed, attenuate into petiole, entire, glabrous on both surfaces, midrib slightly raised on lower surface, lateral nerves obscure. Flowers December to January. Inflorescences axillary, dichasial cymes, 2–4 cm long, 1–4 flowered. Peduncle 1–2 cm long, glabrous. Pedicel 5–10 mm long, glabrous, with 2 bracteoles near base. Bracts 2, opposite, widely ovate, obtuse, 4–7 mm long and wide, glabrous, caducous. Bracteoles 2, opposite, orbiculate, ca. 1 mm long and wide. Calyx deeply 5-lobed; lobes reflexed, oblong,

rounded, ca. 3 mm long, glabrous. Corolla tubular, bilabiate, pale yellow, ca. 2 cm long, glabrous on both sides; tube ca. 15 mm long, 5 mm wide, more or less ampliate; upper lip straight, widely obovate, ca. 6 mm long and wide, bilobed to near middle, lower lip ca. 6 mm long, deeply 3-lobed, lobes orbiculate, ca. 3 mm long, reflexed. Stamens 4, exserted, slightly didynamous, ca. 1.5 cm long, lower pair longer than upper pair; filaments glandular upward, glabrous below, anthers narrowly ellipsoid, shorter pair ca. 2 mm long, longer pair ca. 3 mm long. Staminode 1, filiform, adnate above middle of corolla tube, ca. 8 mm long. Style filiform, ca. 7 mm long, stigma peltate. Ovary linear, ca. 1 cm long, surrounded by a ring ca. 1 mm high at base, undulate on upper margin. Capsule linear, 8–15 cm long, 2 mm across, style persistent, glabrous. Seeds body oblong-linear, ca. 0.8 mm long, with ca. 3 mm long hair-like appendages on both ends.

GESNERIACEAE

Japan: S. Ryukyu (Iriomote-jima). In evergreen forests in lowlands.

Distr.: S. Ryukyu, Taiwan, S. to W. China, Burma,

Assam and E. Himalaya.

Icones: Li et al., Fl. Taiwan 4: t. 1148 (1978); Makino, rev. ed.: t. 2799.

8. *Lysionotus* D. Don

1. *Lysionotus pauciflorus* Maxim. in Bull. Acad. Sci. St.-Pét. 19: 534 (1874).

Japanese name: Shishinran.

Epiphytic evergreen herbaceous subshrubs. Lower stems prostrate, loosely branched, erect branches not or few branched, 5–20 cm long, striate, glabrous, with knob-like leaf scars. Leaves ternate, chartaceous, fleshy; petiole 2–4 mm long, glabrous; blade oblanceolate or narrowly oblong, 2–6 cm long, 0.5–1 cm wide, apex acute, base gradually narrowed, long attenuate into petiole, entire on lower half, coarsely acute-serrate on upper half, glabrous on both surfaces, midrib raised on lower surface, lateral nerves obscure. Flowers July to August, solitary, axillary. Pedicel 1–1.5 cm long, glabrous. Bracteoles 2, opposite, near base of pedicel, setaceous, ca. 1 mm long. Calyx broadly campanulate, 5-lobed almost to base, glabrous; lobes linear-lanceolate, acuminate, ca. 3 mm long. Corolla tubular, bilabiate, ca. 3 cm long, pale purple, glabrous; tube ca. 2.5 cm long, 6 mm across, more or less ampliate; upper lip deeply bilobed, lower lip deeply 3-lobed, lobes orbiculate, ca. 6 mm long and wide. Stamens 2, posterior, adnate to near middle of corolla tube, ca. 10 mm long,

glabrous. Staminodes 2, anterior, filiform, setaceous, ca. 6 mm long. Ovary linear-cylindrical, ca. 15 mm long. Style filiform, stout, ca. 7 mm long, stigma saucer-shaped. Capsule linear-cylindrical, 4–6 cm long, 2 mm across, acute at apex, style persistent. Seeds ca. 8 mm long, body oblong, with hair-like appendages ca. 0.8 mm long on both ends.

Japan: C. to W. Honshu (southward from Shizuoka Pref.), Shikoku and Kyushu. In wet forests; lowlands to 900 m. Endemic.

Icones: Makino, Ill. Fl. Jap. 1: t. 2 (1888); Nakai, Tr. Shr. Jap. rev. ed.: t. 231; Kitamura et al., Herb. Pl. 1: t. 39 313; Terasaki, rev. ed.: t. 2810; Satake et al., Herb. Pl. 3: photo. 110 2; Makino, rev. ed.: t. 2792.

Note: Plants from Taiwan and China are frequently treated the same as *L. pauciflorus* Maxim. However they differ by having wider leaves, oblong to elliptic or obovate leaves 1–8 cm long, 0.5–2.5 cm wide, cuneate to obtuse at the base, not attenuate or short attenuate into the petiole, and the sepals 4–5 mm long. They should be treated a separate species, *L. apicidens* (Hance) Yamazaki*.

* *Lysionotus apicidens* (Hance) Yamazaki, comb. nov.

Aeschynanthus apicidens Hance in J. Bot. 21: 167 (1883).

Lysionotus warleyensis E. Willm. in Gard. Chron., ser. 3, 54: 125 (1913).