

REVISION OF *SIOLMATRA* (CUCURBITACEAE: ZANONIEAE)

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ABSTRACT

A treatment of the neotropical genus *Siolmatra* is presented. Two species are recognized with descriptions, illustrations, distribution data, and a key to the species provided.

RESUMEN

Se presenta un tratamiento del género neotropical *Siolmatra*. Se reconocen dos especies con descripciones, ilustraciones, datos de distribución, y se aporta una clave de identificación de especies.

The genus *Siolmatra* (Cucurbitaceae) was erected by Baillon (1885) to accommodate *Siolmatra brasiliensis* (Cogn.) Baill. which had resided in the heterogeneous genus *Alsomitra* (Blume) M. Roem., now restricted to the Old World. The name *Siolmatra* is an anagram of *Alsomitra*. Subsequently, Baillon (1886) abandoned *Siolmatra*, but Cogniaux (1893) resurrected it and described a second species (*S. paraguayensis*). Cogniaux (1916) later added one new species (*S. amazonica*) and two transferred from *Alsomitra* (*S. pedatifolia* (Cogn.) Cogn. and *S. peruviana* (Huber) Cogn.). Harms (1926) described a sixth species (*S. pentaphylla*), later a seventh (Harms 1933) (*S. simplicifolia*), and Standley (1937) an eighth (*S. mexiae*).

Jeffrey (1962) noted the incongruent mixture of taxa in *Siolmatra* which had been distinguished from *Fevillea* on the basis of leaf type; viz., simple in *Fevillea* versus 3- to 5-foliolate in *Siolmatra*. He redefined the two genera and transferred all taxa to *Fevillea* except *S. brasiliensis*, *S. pentaphylla*, and *S. paraguayensis*. These were maintained by Jeffrey (1978) in his enumeration of the New World Cucurbitaceae. Two species of *Siolmatra* are recognized here. The main distinctions between *Fevillea* and *Siolmatra* are presented in the following key.

1. Leaves with petiolar or laminar glands; calyx with 5 free lobes, these with glandular squamellae (except *F. passiflora*); petals with a medial adaxial flap-like appendage or ridge; staminate flowers with bilocular anthers; fruit globose, usually indehiscent; seeds not winged _____ **Fevillea**
1. Leaves lacking glands; calyx with two pairs of calyx lobes connate, the fifth one free (calyx appearing 3-lobed), glandular calycine squamellae lacking; petals lacking a medial adaxial flap-like appendage or ridge; staminate flowers with unilocular anthers; fruit opening apically by 3 triangular valves; seeds with marginal wings _____ **Siolmatra**

SYSTEMATIC TREATMENT

Siolmatra Baill., Bull. Mens. Soc. Linn. Paris 1:458. 1885. TYPE: *Siolmatra brasiliensis* (Cogn.) Baill. BASIONYM: *Alsomitra brasiliensis* Cogn.

Dioecious tendriled vine or liana; stems slender, sulcate. Leaves pedately 3- to 5-foliolate, petiolate, the leaflets ovate to elliptic, petiolulate or rarely sessile. Tendrils slender, slightly sulcate, bifurcate distally, coiling both above and below the bifurcation. Staminate inflorescences many-flowered, in axillary panicles on the upper part of the stem, the leaves often reduced upwards; flower buds globose, pedicellate; bracts minute; hypanthium pediceloid, slender; calyx 5-merous, with 2 pairs of calyx lobes connate, the fifth free (the calyx appearing 3-lobed); petals 5, white, greenish white, or greenish yellow, obdeltoid or obcordate, short-clawed, the inner surface papillate; stamens 5, the filaments slender, the anthers 1-loculate, the locules horizontal or vertical, the filament extension with a dorsal, glandular, hornlike projection. Pistillate inflorescences many-flowered, in axillary racemes or panicles, the leaves often reduced on the flowering branches; flower buds conical; bracts minute; hypanthium conical; calyx 5-merous, with 2 pairs of calyx lobes, these connate, the fifth free (the calyx appearing 3-lobed); petals 5, white, greenish white, or greenish yellow, obovate, the apex emarginate, papillose on the ventral surface; ovary 3-loculate, the styles separate, conical, the stigmas 2-lobed, the lobes strongly divergent. Fruit conical, 3-loculate, obscurely ribbed, shallowly and obscurely pitted, coriaceous, opening apically by 3 triangular valves, the perianth scars evident at the distal end below the area of dehiscence; seeds compressed, oblong or elliptic, with broad marginal wings, woody with chartaceous tips or wholly chartaceous.

1. Leaves 3-foliolate (rarely 4- to 5-foliolate), if the lower leaflets further divided then usually having a common petiolule, petiolule not articulate from the petiole; petals of the staminate flowers obcordate; fruit 6–8 cm long _____ **S. brasiliensis**
1. Leaves 5-foliolate; petiolule articulate from the petiole; petals of the staminate flowers obdeltoid; fruit 3.5–4.5(–7) cm long _____ **S. pentaphylla**

Siolmatra brasiliensis (Cogn.) Baill., Bull. Mens. Soc. Linn. Paris 1:458. 1885. (Fig. 1). *Alsomitra brasiliensis* Cogn., in Martius, Fl. Bras. 6(4)115. 1878. TYPE: BRAZIL, s.d., *Saint-Hilaire s.n.* (HOLOTYPE: P, n.v., photo ex P: F, US).

Alsomitra brasiliensis var. *pubescens* Griseb., Symb. Fl. Argent. 136. 1879. *Siolmatra brasiliensis* var. *pubescens* (Griseb.) Cogn., in Engler, Pflanzenr. 4(Helb 66)29. 1916. TYPE: ARGENTINA, JUJUY: San Lorenzo, 4 Nov. 1873, *Lorentz & Hieronymus* 228 (LECTOTYPE: BR, lectotype here designated; ISOLECTOTYPES: B (destroyed), NY, photo ex B: F, MO, NY, US).

Siolmatra paraguayensis Cogn., Bull. Herb. Boissier 1611. 1893. TYPE: PARAGUAY, ALTO PARANA, near Guarapi, 1880, *Balansa* 3184 (HOLOTYPE: G?, n.v.; ISOTYPES: B (destroyed), BM, BR, F-fragment, K; photo ex B: F, MO, NY, US).

Vine or liana; stem glabrous, to 5 cm in diameter, the bark scaly, light brown. Leaves 3-foliolate, the lower leaflets occasionally further divided into 2 segments, but usually with a common petiolule, the leaves rarely 4- to 5-foliolate,

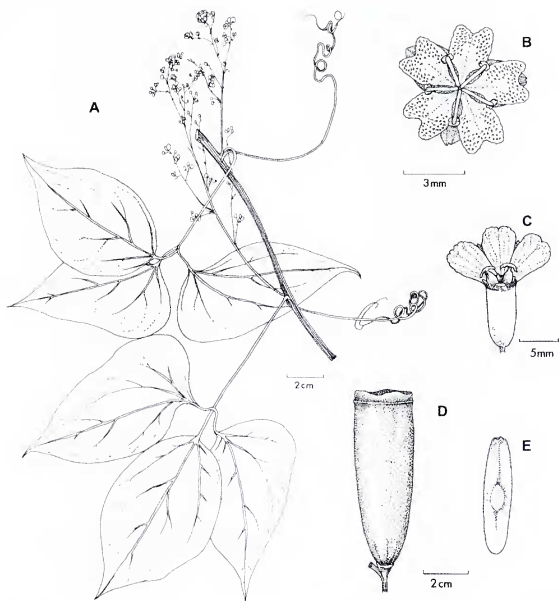


FIG. 1. *Siolmatra brasiliensis*. A. Habit, staminate inflorescence (Woolston 1149, K). B. Staminate flower (Venturi 5582, US). C. Pistillate flower (Hassler 6793, BM). D. Fruit (Venturi 5394, F). E. Seed (Venturi 5394, F).

the blade chartaceous to subcoriaceous, the margin entire or irregularly undulate to lobed (lateral leaflets), ovate to elliptic, the base of the lateral leaflets broadly cuneate to cordate, oblique, unequal, the base of the central leaflets broadly cuneate to subcordate, occasionally oblique and unequal, the apex acuminate, 6-10(-20) cm long, 4-8(-10) cm wide, the upper surface moderately rugose-veined, minutely pustulate, but smooth or nearly so to the touch, tomentellous to glabrate on the veins, occasionally with a few scattered trichomes on the blade, the lower surface with scattered short glandular-capitate trichomes and straight or curved non-glandular trichomes; petiole 0.5-2 cm

long, the median one slightly longer than the laterals, tomentellous; petiole 4–8 (–12) cm long, canaliculate, tomentellous to glabrate; tendrils glabrous or occasionally sparsely strigose near the base. Staminate inflorescences many-flowered, in axillary panicles on the upper part of the stem, 8–30 (–40) cm long, the branches with glandular-capitate and straight to curved non-glandular trichomes; pedicel to 1 mm long; bracts up to 0.5 mm long, lanceolate, strigose-tomentellous; flower buds globose, 2–3 mm in diameter; hypanthium pediceloid, slender, 1–2 mm long; calyx glabrous, the lobes ovate-lanceolate, ca. 2 mm long; petals white, greenish white, or greenish yellow, obcordate, ca. 3 mm long, 2–2.5 mm wide, broadly clawed in the lower 1/4, the apex retuse, the inner surface papillate distally; stamens ca. 2 mm long, glabrous, the filaments slender, the theca oblong, horizontal, ca. 0.4 mm long, the filament extension with a dorsal glandular projection. Pistillate inflorescences many-flowered, in axillary racemes or panicles, 8–15 cm long, the leaves often reduced on the flowering branches and the entire structure to 40 cm long, the indumentum as in the staminate; pedicel and bracts as in the staminate; flower buds conical, 8–15 cm long; hypanthium conical 5–8 mm long, glabrous; calyx lobes triangular, 3–4 mm long, glabrous; petals white, greenish white, or greenish yellow, obovate, 4–6 mm long, the margins erose, the apex emarginate, minutely papillose on ventral surface; styles conical, ca. 2 mm long, the stigma branches diverging at right angles, papillate. Fruit narrowly conical, yellow or yellow-brown, 6–8 cm long, 2–3 cm wide, obscurely ribbed, the surface shallowly and obscurely pitted, the perianth scar at the distal end evident; seeds compressed, with broad marginal wings, narrowly elliptic-oblong, 4.2–5.5 cm long, 0.8–1.5 cm wide (including the wings), the central portion elliptic, 5–7 mm long, 5–6 mm wide, both ends acuminate, the surface papillate, the wings submembranaceous, smooth, with the median rib extending from the central portion to the funicular end.

Distribution and ecology.—The species occurs from eastern Peru south to northwestern Argentina, east to Paraguay and eastern Brazil. It is widespread but generally uncommon, although locally abundant in western chaco forests in Depto. Tarija, Bolivia (Michael Nee, pers. comm.). It occurs in wet forests at low elevations.

Siolmatra brasiliensis is usually readily distinguished from *S. pentaphylla* by its 3-foliolate leaves. However, three collections from Loreto, Peru (Vásquez et al. 2827; Vásquez et al. 2829; Vásquez & Jaramillo 5532) have 3-, 4-, or 5-foliolate leaves. However, in *S. pentaphylla* the petiolules are articulate from the petiole, while in they are not in *S. brasiliensis*.

Siolmatra paraguayensis was distinguished by Cogniaux (1916) from *S. brasiliensis* on the basis of its more membranaceous leaves and the ovate rather than triangular sepals of the staminate flowers. *Siolmatra brasiliensis* var. *pubescens* was distinguished by the pubescent lower leaf surface and peduncles.

However, these distinctions are trivial and inconsistent, so the segregates are here reduced to synonymy.

Additional specimens examined. **PERU.** **Loreto:** Reserva Nacional Pacaya-Samiria, 04°51'-05°12'S, 73°50'-74°40'W, 90 m, 1993, *Carpio 2104* (MO); Florida. Río Putumayo, mouth of Río Zubineta, ca. 200 m, Mar-Apr 1931, *Klug 2033* (F, K, MO, NY, US); Río Maranhón basin, near mouth of the Río Santiago at Pongo Manserichi, ca. 77°30'W, 1924, *Tessmann 4527* (G, NY); Estación Biológica Callicebus Río Nanay-Mishana, 1 Jan 1982, *Vásquez et al. 2827* (MO), *Vásquez et al. 2829* (MO); Puerto Almendras (Río Nanay), 122 m, 7 Sep 1984, *Vásquez & Jaramillo 5532* (MO); Iquitos, 120 m, 4 Apr 1930, *Williams 8112* (F). **Madre de Dios:** Cuzco Amazónico, 15 km ENE of Puerto Maldonado, 12°35'S, 69°05'W, 200 m, 12 Dec 1989, *Gentry et al. 68606* (MO); Cuzco Amazónico, across Río Madre de Dios on road to Lago Sandoval, 12°35'S, 69°05'W, 200 m, 19 Dec 1989, *Gentry et al. 68963* (MO); Las Piedras, Cuzco Amazónico, 12°29'S, 69°03'W, 200 m, 9 Oct 1991, *Timaná & Jaramillo 2502* (MO); Las Piedras, Cuzco Amazónico, near the river and Quebrada Cicha, 12°29'S, 69°03'W, 200 m, 15 Oct 1991, *Timaná & Jaramillo 2605* (MO); Las Piedras, Cuzco Amazónico, 12°29'S, 69°03'W, 200 m, 2 Nov 1991, *Timaná & Jaramillo 2958* (MO). **BRAZIL.** **Acre:** basin of Río Purus, right bank of Río Iaco, Novo Olinda, between Igarapé Santo Antônio and Igarapé Boa Esperança, 10°07'S, 69°13'W, 21 Oct 1993, *Daly et al. 7831* (MO, NY), 30 Oct 1993, *Daly et al. 7981* (NY); São Francisco, Aug 1911, *Ule 9378* (G, K, US). **Bahia:** Estrada Barreiras-Corrente, km 33, 520 m, 16 Jun 1983, *Coradin et al. 5727* (MO, NY); Ferreira, Nov 1912, *Zehntner 4097* (M); Faixão, Nov 1912, *Zehntner 5005* (M). **Maranhão:** 27 km S of Entroncamento, intersection of Hwy 6 & Hwy 222, along Hwy 6, 4°23'S, 46°14'W, 20 Mar 1983, *Schatz et al. 943* (NY). **Rio de Janeiro:** near Rio de Janeiro, s.d., *Burchell 1685* (K); Cabo Frio, s.d., *Glaziou 10071* (K). **BOLIVIA.** **El Beni:** Espiritu, floodplain of Río Yacuma, 200 m, 5 Jul 1984, *Beck 5648* (NY); Cachuella Esperanza, Río Beni, Oct 1922, *Meyer 235* (NY). **El Beni/Pando:** junction of Río Beni and Río Madre de Dios, Aug 1887, *Rusby 547* (NY). **La Paz:** Parque Nacional Madidi, near Arroyo Aguapolo and Río Tuchi, 270 m, 16 Mar 2002, *Macia et al. 6855* (NY). **Santa Cruz:** Santa Cruz Botanical Garden, 12 km E of Santa Cruz, 17°46'S, 63°04'W, 375 m, 9 May 1991, *Gentry et al. 73605* (MO); Campamento El Refugio, 14°45'20"S, 61°01'32"W, 180 m, 29 Jun 1994, *Guillén 1987* (MO); Parque Nacional Noel Kempf Mercado, 24 km W of San José de Campamento, on way to Piso Firme, 15°14'46"S, 61°14'34"W, 300 m, 28 Apr 1996, *Guillén et al. 4240* (NY); Las Trancas, 16°32'40"S, 61°59'28"W, 500 m, 11 Nov 1994, *Killeen et al. 7116* (MO); study area of "BOLFOR" project, Las Trancas-95, 16°31'13"S, 61°50'47"W, 450 m, 12 Dec 1994, *Mamani & Jardim 390* (MO, NY); Cerro San Miguel, Mar 1989, *Mereles & Ramella 2784* (FCQ, G); Parque Nacional Amboró, steep slopes above and 1 km S of Río Saguaño, 17°41'S, 63°44'W, 750 m, 20 Jan 1988, *Nee 36027* (MO, NY); Estancia San Rafael de Amboró, 17°36'S, 63°36'W, 420, 11 Jun 1998, *Nee 49747* (NY); Jardín Botánico de Santa Cruz, 12 km E of center of Santa Cruz, on road to Cotaco, 17°47'S, 63°04'W, 375 m, 5 Jun 1998, *Nee and Bohs 49613* (MO, NY); Cerro San Miguel, 7 Mar 1989, *Ramella & Mereles 2575* (G). **PARAGUAY.** **Canindeyú:** Estación Biológica Mbaracayú, ca. 10 km E of Villa Ygatimi, trail from main road through reserve to Mirador de los Chanchitos de Monte (Mirador Bojerkue), 24°07.41'S, 55°30.57'W, ca. 200 m, 24 Nov 2003, *Bohs & Nee 3184* (MO, NY); Mbaracayú Reserve, around Nandurokai, 23°59'39"S, 55°28'44"W, 27 May 1999, *Zardini & Chaparro 50833* (NY). **Chaco:** proposed Biosphere Reserve "Gran Chaco Americano", Agua Dulce, 19°59'04"S, 59°45'28"W, 170 m, 8 Feb 2002, *Zardini & Apestegui 58247* (NY). **Concepción:** Estancia Primavera-Vallemi, 22°24'07"S, 57°37'33"W, 150 m, 3 Nov 2001, *Zardini & Guerrero 57291* (NY). **Guaíra:** Cordillera de Ybytyruzú, W of Cerro Perú, 2 km E of Destacamento Tororo, 12 Nov 1988, *Zardini 8044* (MO); Río Yhacá, 10 km N of Tebicuary, 16 Nov 1990, *Zardini & Velázquez 23941* (MO, NY, USF). **La Cordillera:** Cordillera de Altos, Dec 1902, *Fiebrig 1025* (F); Cordillera de Altos, Dec 1898, *Hassler 3635* (G, NY); near Lago Ypacaraí, Nov 1913, *Hassler 12370* (BM, G, MO, NY), Dec 1913, *Hassler 12370a* (BM, G, K, MO, NY). **San Pedro:** Primavera, 15 Nov 1959, *Woolston 1149* (K, NY, US). **Paraguari:** Río Yacá Valley, near Cholólo, Dec 1900, *Hassler 6793* (BM, BR, G, NY). **ARGENTINA.** **Jujuy:** s.d., *Lorentz s.n.* (BR, K); Campamento Caimancito de YPF, 7 Dec 1986, *Zuloaga et al. 2525* (MO). **Salta:** Río Seco, 340 m, 2 Apr 1945, *Meyer 8451* (NY); 30

km from Colonia San Andrés on road to Orán, *Morrone et al.* 3998(MO); Senda Hachada, 9 Dec 1979, *Schinini* 19560(K); Finca San Andrés, La Marona, bank of Río San Andrés, ca. 23°04'23"S, 64°45'07"W, 800 m, 30 Oct 1997, *Schinini et al.* 33083(NY); Abra Grande, 12 Nov 1927, *Venturi* 5582(US).

Siolmatra pentaphylla Harms, Notizbl. Bot. Gart. Berlin-Dahlem 9:989, 1926. (**Fig 2**). TYPE. PERU. LORITCA: upper Río Marañón, mouth of Río Santiago at Pongo Manserichi, ca. 77°30'W, 160 m, 18 Nov 1924. *Tessmann* 4575 (LECTOTYPE: G, here designated to replaced destroyed B holotype; photo ex B: F. MO, NY, US; ISOLECTOTYPES: NY, Bassler Herb. [Peru], n.v.; photograph of isotype in Bassler Herb.: US).

Vine or liana; stem glabrous or rarely sparsely pilose when young, soon glabrescent. Leaves 5-foliolate, the petiolules articulate from the petiole, the blade chartaceous to subcoriaceous, the margin entire, narrowly ovate to elliptic, the base cuneate to rounded, often unequal, the apex acuminate, (5-)7-11 cm long, 3-5.5 cm wide, the upper surface moderately rugose-veined, minutely pustulate, but smooth to the touch, occasionally with a few short trichomes on the midvein, otherwise glabrous, the lower surface glabrate or occasionally pubescent and sparsely short glandular-capitate; petiolules 0.5-1.5 cm long, rarely subsessile, the median one slightly longer than the lateral, pilose and sparsely short glandular-capitate or glabrous; petiole 5-10 cm long, caniculate, glabrate; tendrils glabrous. Staminate inflorescences many-flowered, in axillary panicles on the upper part of the stem, 20-50 cm long, the leaves often reduced upward and the entire floriferous part of the stem to 2 m long, the branches sparsely pilose and short stipitate-glandular or glabrous; pedicel up to 1 mm long; bracts up to 2.5 mm long, linear, with scattered stipitate-glandular and non-glandular trichomes; flower buds globose, 2-3 mm in diameter; hypanthium pediceloid, slender, 1-3 mm long; calyx glabrous, the lobes ovate-lanceolate, 2-3 mm long; petals white, greenish white, or greenish yellow, 2-3 mm long, ca. 1.5 mm wide, narrowly obdeltoid, clawed on the lower 1/4, the apex retuse, the inner surface papillate distally and at the base; stamens ca. 1.5 mm long, free or variously connate, the filament ca. 1 mm long, the anther vertical, the filament extension with a dorsal triangular, glandular projection. Pistillate inflorescences many-flowered, axillary racemes or panicles, 10-15 cm long, the leaves often reduced on the flowering branches and the entire structure to 40 cm long, the indumentum as in the staminate; pedicels and bracts as in the staminate; flower buds conical, 7-10 mm long; hypanthium conical, 5-7 mm long, glabrous; calyx lobes triangular, ca. 3 mm long, glabrous; petals white, greenish white, or greenish yellow, obovate, 4-6 mm long, the margins erose, the apex emarginate, papillose on the ventral surface; styles conical, ca. 2 mm long, the stigma branches diverging at right angles, papillate, the staminodes 5, ca. 0.5 mm long. Fruit short-conical, yellowish brown (rarely reddish brown), 3.5-4.5(-7) cm long, 2-3 cm wide, obscurely ribbed, the surface shallowly and obscurely pitted, the perianth scars at the distal end evident; seeds compressed, with broad marginal wings, oblong, 3-3.5 cm long, 1-1.3 cm wide (including wings), the central portion

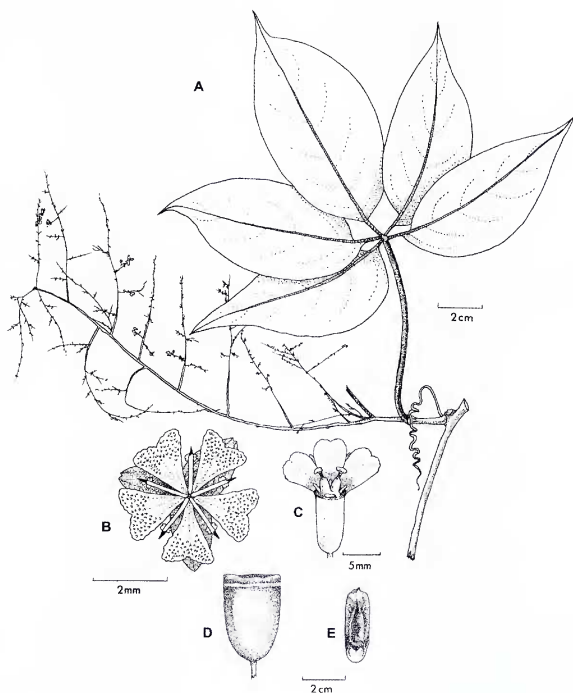


FIG. 2. *Siolmatra pentaphylla*. A. Habit, staminate inflorescence (Prance et al. 8039, NY). B. Staminate flower (Gentry & Reville 20798, USF). C. Pistillate flower (Williams 2453, F). D. Fruit (Mori et al. 9134, NY). E. Seed (Mori et al. 9134, NY).

13-17 mm long, 5-6 mm wide, both ends acuminate, the surface smooth, the wings smooth, woody, the distal 3-6 mm submembranaceous and yellow-colored.

Distribution and ecology.—The species occurs in the Amazonian basin from southeastern Colombia and northern Peru, south to northern Bolivia, and east to Pará in Brazil and Guyana. Although apparently widespread in the Amazonian

basin, the species is not commonly collected. It occurs in wet forests along riverbanks and flooded lake shores at 100–300 m.

The staminal condition is surprisingly highly variable, more so than that of the other species. The stamens may be entirely free, the filaments connate at base into two groups (2 + 3), two pairs of filaments connate for part or nearly their entire length (2 + 2 + 1), or apparently all short-connate at base.

Although the leaves are typically glabrate on the lower surface, two collections have leaves distinctly pubescent (*Pires* 3857; *Prance et al.* 8039). The fruits are usually 3.5–4.5 cm long and light in color. However, *Pires* 3857 has fruits 7 cm long and dark in color. These two collections may represent a distinct taxon, but with so little material available, we are reluctant to describe it.

Additional specimens examined. **COLOMBIA. Amazonas:** Río Loreto-yacú, ca. 100 m, Oct 1945, *Schultes* 6732 (F). **GUYANA.** Oronoque, New River and Amazon divide, ca. 280 m, Nov 1937, *Beddington* 29 (K). **ECUADOR. Napo:** Aguarico, Reserva Etnica Huaorani, km 60–61 along road and oil pipeline Maxus, S of Río Tivacuno, 00°51'S, 76°26'W, 250 m, 21–25 Oct 1993, *Aulestia & Andi* 890 (MO). **Pastaza:** Via Auca, 115 km S of Coca, 10 km S of the Napo-Pastaza border, near the Río Tigüino, Petro-Cañada road, 01°15'S, 76°55'W, 320 m, 26–31 Jan 1989, *Hurtado & Neill* 1550 (MO). **PERU. Amazonas:** Yamayakat Bosque, 04°55'S, 78°19'W, 320 m, 22 Jan 1996, *Jaramillo et al.* 951 (MO); Quebrada Kusú, 05°03'20"S, 78°20'23'W, 380 m, 6 Nov 1996, *Vásquez et al.* 21531 (MO). **Loreto:** Río Yavari between Emilia and Brazilian village of Paumari (above Atalaia del Norte), 22 Nov 1977, *Gentry & Revilla* 20798 (MO, USF); Airico (native community of Shimaco-Santa Rosa), 150 m, 11 Dec 1984, *Vásquez* 6069 (MO, NY); Explor Camp at Río Sucusari, 03°20'S, 72°55'W, 120 m, 19 Mar 1996, *van der Werff & Vásquez* 13921 (MO); Caballicochoa on the Río Amazonas, 13 Aug 1929, *Williams* 2453 (F). **Pastaza:** Via Auca, 115 km S of Coca, 10 km S of Napo-Pastaza border, near Río Tiguino, along Petro-Cañada highway under construction, 01°15'S, 76°55'W, 320 m, 26–31 Jan 1989, *Hurtado & Neill* 1550 (MO). **BRAZIL. Amazonas:** Río Japurá, 01°50'S, 65°40'W, 3 Nov 1982, *Cid & Lima* 3492 (NY); Río Solimões, Igarapé Jandiatuba, 6 Jan 1949, *Fröes* 23837 (NY); basin of Río Solimões, basin of creek Belém, 26 Oct–11 Dec 1936, *Krukoff* 9046 (BM, F, MO, NY); mouth of Río Iça, on bank of Río Solimões, 24 Feb 1977, *Mori et al.* 9073 (NY); Río Jandiatuba, 10 km upstream from mouth, 26 Feb 1977, *Mori et al.* 9134 (K, NY); Lago Preto on Río Purus, 3 km N of Lábrea, 29 Oct 1968, *Prance et al.* 8039 (K, NY). **Pará:** Igarapé Ipixuna, tributary of Río Xingu, 04°49'S, 52°31'W, 5 km S of settlement, Araweté Indian Reserve, 23 Mar 1986, *Balée* 2024 (NY); left bank of the Río São Manuel [Telespries], Igarapé Fernando de Noronha, downstream from Cachoeira do Cladeirão, 7 Jan 1952, *Pires* 3857 (US). **BOLIVIA. Pando:** Nuevo Mundo, Campamento 18, 18 km N of airstrip, 10°39'S, 66°46'W, 160 m, 2 Jul 1992, *Gentry et al.* 77663 (MO).

EXCLUDED SPECIES

The following five taxa previously placed in *Siolmatra* by various workers are here referred to *Fevillea*.

- Siolmatra amazonica* Cogn., in Engler, Pflanzenr. 4(Heft 66):30. 1916. [= *Fevillea pedatifolia* (Cogn.) C. Jeffrey].
- Siolmatra mexiae* Standl., in J.F. Macbride, Publ. Field Mus. Nat. Hist., Bot. Ser. 13(6):329. 1937. [= *Fevillea cordifolia* L.].
- Siolmatra pedatifolia* (Cogn.) Cogn., in Engler, Pflanzenr. 4(Heft 66):30. 1916. BASIONYM: *Alsomitra pedatifolia* Cogn., in Martius, Fl. Bras 6(4):115. 1878. [= *Fevillea pedatifolia* (Cogn.) C. Jeffrey]
- Siolmatra peruviana* (Huber) Cogn., in Engler, Pflanzenr. 4(Heft 66):30. 1916.

- BASIONYM: *Alsomitra peruviana* Huber, Bol. Mus. Paraense Hist. Nat. 4: 616. 1908. [*Fevillea pedatifolia* (Cogn.) C. Jeffrey].
Siolmatra simplicifolia Harms, Notizbl. Bot. Gart. Berlin-Dahlem 11:769. 1913. [*Fevillea pedatifolia* (Cogn.) C. Jeffrey].

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REFERENCES

- BAILLON, H. 1885. La fleur femelle de l'*Alsomitra brasiliensis*. Bull. Mens. Soc. Linn. Paris 1: 457-458.
BAILLON, H. 1886. Histoire des plantes. 8:417-418. L. Hatchette et Cie, Paris.
COGNIAUX, A. 1893. Genre *Siolmatra* H. Baill. et la tribu des Zanonées. Bull. Herb. Boissier 1:609-613.
COGNIAUX, A. 1916. Cucurbitaceae: Fevilleae et Melothrieae. In: A. Engler, ed. Das Pflanzenreich 66(4) 275(1):1-277. W. Engelmann, Berlin.
HARMS, H. 1926. Cucurbitaceae. In: J. Mildbraed, Plantae tessmannianae peruvianae III. Notizbl. Bot. Gart. Berlin-Dahlem 9:989-996.
HARMS, H. 1933. Cucurbitaceae americanae novae. Notizbl. Bot. Gart. Berlin-Dahlem 11: 769-776.
JEFFREY, C. 1962. Notes on some species of *Fevillea* L., *Siolmatra* Baill., and *Pseudosicydium* Harms (Cucurbitaceae) in the Amazon Basin. Kew Bull. 16:199-202.
JEFFREY, C. 1978. Further notes on Cucurbitaceae: IV, some New-World taxa. Kew Bull. 33: 347-380.
STANDLEY, P.C. 1937. Cucurbitaceae. In: J.F. Macbride, ed. Flora of Peru. Publ. Field Mus. Nat. Hist., Bot. Ser. 13(6):329.