

A STUDY OF SCHINUS L.

Por FRED A. BARKLEY

RESUMEN

Un estudio de "Schinus" El autor hace un estudio monográfico del género americano *Schinus*. Da claves y distribución geográfica de las especies. Crea nuevas entidades taxonómicas: *Schinus O'Donellii*; *S. Ramboi*; *S. Kauselii*; *S. Engleri* var. *uru-*
guayensis y hace las siguientes combinaciones nuevas: *S. fasciculatus* var. *arenicola*; *S. piliferus* var. *Cabrerae*; *S. piliferus* var. *boliviensis*; *S. longifolius* var. *paragu-*
yensis; *S. patagonicus* var. *crenuloides*; *S. weinmannifolius* var. *Hässleri*.

- War conditions made the original study* difficult, since types or authentic specimens were obtainable with difficulty if at all, and there was a paucity of collections from South America. Adequate material is now available, and after studying this material the author thought it desirable to publish the present revision since several changes seem necessary.

The genus takes its name from the treatment by Linnaeus in 1753 (Linnaeus, C. Gen. ed. 1, 358. 1738). Of the five species mentioned in *Species Plantarum* the second and third become the basis for the genus, the pinnate-leaved forms having been consistently assigned to that genus. In 1795 Cavanilles described and figured a simple-leaved plant as *Amyris polygama* (Cav.) Kunth. In 1825 de Candolle transferred this species to *Schinus*. Further treatment of the two groups has varied from the rigid separation of the two on the grounds of simple or pinnate leaves to their inclusion together in *Schinus*. Although typically pinnately compound, specimens of *Schinus Pearcei* Engl. are now available showing many or all of the leaves simple, leaving as a distinction between the two groups the compound panicle in the pinnate-leaved members and the pseudoraceme in the simple-leaved members. This distinction is

* Barkley, Fred A. *Schinus* L. *Brittonia* 5: 160-198, 1944.

likewise not always consistent. There seems to be no valid reason for maintaining the two as distinct genera. It is convenient however, to separate the two groups into subgenera, even though *Schinus Pearcei* forms a link between the two.

In South America two other genera, *Mauria* and *Lithraea*, are very similar to *Schinus*. *Mauria* has a thin endocarp and suspended seed, *Lithraea* has a basal seed and bony endocarp, while *Schinus* has a suspended seed and bony endocarp. All three have carpels 3, ovary with only one seed-bearing locule, ovary and fruit free, flowers with heterochlamydic perianth, the receptacle developed into a disk between the ovary and the stamens, embryo more or less bent, and twice as many stamens as petals.

One fossil species of *Schinus* has been described (*Schinus departita* Sap. in Zittel, Schimper & Schenk, *Handbuch der Palaeontologie*, 2: 541. 1891).

With the exception of *Schinus Molle* L. which extends from Mexico through South America, the genus is limited in natural distribution to South America, and there is good reason to believe that *Schinus Molle* L. had an original distribution in warm temperate regions of South America and was early introduced throughout Latin America where it has become completely established. The genus (represented by several species) is becoming established in temperate regions in both the Old and New Worlds where it has been introduced as ornamentals.

In common with the other members of the Anacardiaceae, members of *Schinus* have schizolysigenous canals in the phloem*. The leaves are always alternate. There is a considerable variation in the size, shape, and outline of the leaves or leaflets even in the same species. In texture the laminae vary from membranaceous to thick-coriaceous. Among the various species one finds a variation from complete glabrosity to dense pilosity. Typically the margins of the leaves are flat, but in a few they are markedly revolute. In species having compound leaves the rachis segments are typically alate. The pubescence is made up of simple unbranched or glandular trichomes, the glandular hairs being either stalked or sessile. The inflorescence typically is a panicle but in many species is

* For a discussion of the anatomy of the wood of the Anacardiaceae, see: Heimsch, Jr. Wood anatomy and pollen morphology of *Rhus* and allied genera. Journ. Arn. Arb. 21: 279-291, pls. 3. 1940.

Comparative anatomy of the secondary xylem in the Gruinales and Terebinthales of Wettstein with reference to taxonomic grouping. Lilloa 8: 83-230. 1942

so reduced (or contracted) as to appear a raceme. The flowers are typically 5-parted with 5 sepals, 5 petals, 10 stamens, and a tricarpellary pistil. Two of the carpels are completely suppressed except for the stigmas and styles. In most species studied some specimens (rarely all) have 4-parted flowers. The plants are polygamodioecious, the pistillate flowers having smaller stamens with sterile anther-sacs, and the staminate having small, abortive pistils. The disks of the pistillate flowers are saucer-shaped, those of the staminate flowers cup-shaped, the prominent lobes of the disk alternating with the 8-10 stamens.

In the subgenus *Euschinus* the species are rather uniform and rather easily delimited, whereas in the subgenus *Duvava* there is much diversity between individuals of the same species, the species are not so well differentiated, so that delimitation between the species in many cases is consequently difficult.

The present study has been made at Fundación Miguel Lillo of the Universidad Nacional de Tucumán, Argentina. The author is indebted to three grants from the Penrose Fund of the American Philosophical Society which have assisted in the preparation of Bibliographic materials and photographs of various groups of the Anacardiaceae, of which the present paper is one and an additional grant which has made possible the visiting of the more important South American herbaria to study their specimens of this family. Especial mention must be made of the assistance of Sr. Jorge Araque M. who has typed most of the data from specimens and assisted with the preparation of the manuscript. The author is grateful to the directors and curators of the herbaria from which he has studied material. Thanks are also due to the staff of the Fundación Miguel Lillo who have at all times been most helpful with this study.

SCHINUS L.

Schinus L. Sp. Pl. 388. 1753; ed. 2. 1467. 1763; Syst. ed. 10. 1034. 1759; Molina, Saggio sulla storia naturale del Chile 169, 355. 1782; Ortega, Nov. Rar. Plant. Hort. Reg. Bot. Matrit. Deser. Dec. 102-103. 1797; Andrews, Bot. Repos. 10: t. 620. 1799; Willd. Sp. Pl. 4: 817. 1805; Raddi, Mem. Soc. Ital. Sci. 18: 399. 1820; DC Prodr. 2: 74. 1825, Endl. Gen. 1129. 1840. Walp. Rep. 1: 550. 1842; Martius, Syst. Mat. Med. Veg. Brasil. 52. 1843; Benth. & Hook. Gen. Pl. 1: 422. 1862; Philippi, Anal. Univ. Chile 23: 451. 1863; Marchand, Rev. Anac. 50: 163. 1869; Engl. in Mart. Fl. Bras. 12²: 381. 1876; Griseb. Symb. Fl. Argent. 91, 222. 1879; Engl.

in DC. Monogr. Phaner. 4: 331. 1883; Engl. in E. & P. Nat. Pfl. 3⁵: 162. 1892; Reiche, Anal. Univ. Chile 47: 58. 1897. Arechavaleta, Anal. Mus. Nac. Montev. 3: 294. 1898; Chod & Hassl. Bull. Herb. Boiss, ser. 2.4: 66. 1904; I. M. Johnston, Jour. Arnold. Arb. 19: 254. 1938; Cabrera, Rev. Mus. La Plata 2²: 6. 1938; Rev. Arg. Agron. 6: 87. 1939; Barkley, Brittonia 5: 161. 1944.

Molle [Tourn.] Adans. Fam. 2: 341. 1763.

Sarcotheca Turez. Bull. Soc. Nat. Moscou 311: 474. 1858, non Blume (1850) nec Kuntze (1891).

Schinus St. Lag. Ann. Soc. Bot. Lyon 7: 133. 1880.

Duvava Kunth, Ann. Sci. Nat. 12: 340. 1824; DC. Prodr. 2: 74. 7825; Benth. & Hook. Gen. Pl. 1: 426. 1862; Griseb. Symb. El Argent. 92. 1879 Philippi, Cat. Plant. Vasc. Chil. 47. 1881; Arechavaleta, Anal. Mus. Montev. 3: 299. 1898.

Undershrubs to tall trees. Branches with resin-duets in the cortex, numerous, very slender to thick but never staghorn-like, pungent or not, glabrous to densely pilose, the pith small. Leaves simple or compound, small to large, membranaceous to thick-coriaceous, glabrous to densely pilose, the margins entire, subentire, crenulate, dentate, or serrate, flat to strongly revolute; rachis (when present) alate; leaflets sessile or subsessile. Inflorescence a spike-like, pseudoraceme, a slightly branched panicle, or a much branched large panicle, glabrous to densely short-pilose. Flowers many, small. Bracts usually deltoid or deltoid-ovate, rarely deltoid-lanceolate, glabrous to densely pilose on the dorsal surface, usually more or less densely ciliate on the margin with simple trichomes, sometimes with clavate glandular hairs intermixed. Pedicels usually slender, 1-4 times as long as the flowers, with a prominent abscission ring one-third to one-half of the length from the base, usually more densely pubescent below the abscission disk, the pedicel gradually or abruptly enlarging at the apex. Sepals 4-5, deltoid, ovate, or rotund, glabrous to densely pilose on the dorsal surface, usually more or less densely ciliate on the margin with simple trichomes, sometimes with clavate glandular hairs intermixed. Petals 4-5, lanceolate to broadly ovate, truncate, 2-4 times as long as the sepals, glabrous or rarely with a few simple trichomes near the base or rarely ciliate with simple hairs. Stamens 8-10, in the staminate flowers those alternating with the petals almost as long as the petals or sometimes longer, those opposite the petals one half to two-thirds as long as the petals, filaments somewhat enlarged toward the base, the anthers ovate to oblong; stamens in the pistillate flowers often only a third as large and with the anthers sterile. Disk thick, with

lobes as many as the stamens and alternating with them, in pistillate flowers saucer-shaped, in staminate flowers cup shaped. Pistil tricarpellary, the stigmas three, inverted V-shaped to subglobose, the styles three, free above, united the lower half of their length, the ovary of one carpel developing, this one-celled with a single suspended ovule, at anthesis the ovary of the staminate flowers about one-third as large as in the pistillate. Fruit a small drupe, the exocarp thin, chartaceous, shining (but often with a few simple trichomes), rose-lavender to deep red, separating from the mesocarp at maturity, the mesocarp thin, resinous, adhering to the bony endocarp.

Center of distribution northern Argentina; native in Argentina, southern Brazil, Uruguay, Paraguay, Chile, Bolivia, and Perú, one species well established to Mexico; becoming established in California, Texas, Florida, Canary Islands, China and other areas where it has been introduced as an ornamental.

Type Species: *Schinus Molle* L. Sp. Pl. 388. 1753.

KEY TO THE TAXONS:

- 1. Leaves simple; inflorescences mostly pseudoracemes. Subgenus *Duvava*
- 2. Branches spinescent. Section *Euduvaava*
- 3. Petioles mostly 3 mm or more in length.
- 4. Leaves coriaceous.
- 5. Leaves not greatly longer than broad.
- 6. Leaves entire or rarely irregularly serrate, heavily coriaceous.
 - 1. *Schinus Marchandii*
 - 6. Leaves crenate-serrate to irregularly lobed, coriaceous.
 - 2. *Schinus O'Donellii*
- 5. Leaves thinly coriaceous, very much longer than broad.
 - 9a. *Schinus Engleri* var. *paraguayensis*
- 4. Leaves thinnish.
- 5. Leaves lanceolate or spatulate, cuneate at base.
- 6. Leaves lanceolate, about 6 cm. long., 1 cm. broad, thickly membranaceous; branches coarse.
 - 10 *Schinus Ramboi*
- 7. Stems pilose.
- 7. Stems glabrous or glabrate.
 - 7a *Schinus longifolius* var. *paraguariensis*
- 6. Leaves spatulate or oblong, mostly under 5 cm. long, thinnish.
- 7. Leaves spatulate or lanceolate, spatulate, their margins usually irregular; branches coarse.
 - 7. *Schinus longifolius*
- 7. Leaves linear-lanceolate, margins entire or rarely noticeably irregular; branches slender.
 - 5a *Schinus fasciculatus* var. *arenicola*
- 5. Leaves oblong, obtuse at base.
 - 8 *Schinus bumeliaeoides*

3. Petioles usually less than 3 mm. long or the leaves sessile; often leaves of new branches with longer petioles than the fascicled leaves of older branches.
 4. Leaves usually of two very different types on the same plant, dimorphic.
 5. Leaves thinnish, leaves broader than long and dentate or crenate-dentate, and leaves lanceolate and either entire or somewhat lobed, leaves of juvenile plants often sharply dentate; fruit small.
 6. Stems and leaves pilose, leaves thin; inflorescence axis usually over 1 cm. long. 5 *Schinus fasciculatus*
 6. Stems and leaves glabrous, leaves thinnish to subcoriaceous; inflorescence axis usually under 6 mm. long. 5a *Schinus fasciculatus* var. *arenicola*
 5. Leaves coriaceous; inflorescence axis about 5 mm. long, or less; fruit large.
 6. Leaves broadly ovate and obtuse or leaves spatulate and usually obtuse. 3. *Schinus Johnstonii*
 6. Leaves elliptic and acuminate or leaves oblong-elliptic and acute. 4. *Schinus praecox*
 4. Leaves variable within narrow ranges of form, not truly dimorphic.
 5. Leaves velvety pilose above and below.
 6. Leaves not revolute margined. 11. *Schinus ferox*
 6. Leaves revolute margined. 12. *Schinus spinosus*
 5. Leaves not velvety pilose above and below, when pilose above only sparsely so.
 6. Leaves 2 to 6 times as long as broad.
 7. Stems long pilose; leaves spatulate-lanceolate, subsessile or those growing on new shoots with petioles 4-5 mm. long. 10. *Schinus Ramboi*
 7. Stems not pilose, or if pilose leaves not as above.
 8. Inflorescence axis mostly over 2 cm. long; leaves usually cuneate at base and decurrent.
 9. Leaves thin.
 10. Leaves pubescent.
 11. Leaves with pilosity confined to the veins. 6. *Schinus piliferus*
 11. Leaves with pilosity not confined to the veins.
 6a. *Schinus piliferus* var. *Cabrerae*
 10. Leaves glabrous. 6b. *Schinus piliferus* var. *boliviensis*
 9. Leaves coriaceous or subcoriaceous. 13. *Schinus polygamus*
 8. Inflorescence axis mostly under 2 cm. long.
 9. Inflorescence axis elongate, usually over 1 cm. long; stems and leaves minutely pilose. 5. *Schinus fasciculatus*
 9. Inflorescence axis short, never exceeding 7 cm. long; stems and leaves glabrous.
 10. Leaves coriaceous, oblong. 3. *Schinus Johnstonii*
 10. Leaves thin to subcoriaceous, or if coriaceous lanceolate to linear-lanceolate.
 11. Leaves usually truncate at base and with veins not strongly impressed; branches relatively slender and branching almost at right angles. 5a *Schinus fasciculatus* var. *arenicola*
 11. Leaves usually subcuneate at base with veins strongly impressed; branches relatively heavy, and branching at relatively small angles. 9a *Schinus Engleri* var. *uruguayanus*
 6. Leaves broader than long to slightly longer than broad.

7. Leaves one and a half to two and a half times as long as broad.
 8. Inflorescence axis mostly about 2 cm. long; leaves subcoriaceous.
 13a. *Schinus polygamus* var. *parviflorus*
 8. Inflorescence axis under 1 cm. long; leaves thinnish.
 9. Leaves ovate; petals rotund; fruit 5 mm. in diameter.
 9. Leaves oblong (or on juvenile branches ovate, acute and often dentate); petals ovate; fruit 4 mm. in diameter.
 9a. *Schinus Engleri* var. *uruguayanus*
 7. Leaves from broader than long to twice as long as broad.
 8. Branchlets densely pilose, strongly pungent; inflorescence about 1 cm. long, densely pilose; leaves thin. 14. *Schinus microphyllus*
 8. Branches glabrous (or sparsely short-pilose and appearing glabrate) varying from spinescent to blunt; inflorescence axis 1-3 mm. long; sparsely pubescent.
 9. Leaves thinly subcoriaceous; Branches spinescent to blunt.
 15. *Schinus andinus*
 9. Leaves coriaceous; branches thick, pungent. 1. *Schinus Marchandii*
 2. Branches not spinescent. Section *Pseudoduvaua*
 3. Leaves thinnish to membranaceous, lance-ovate to ovate; inflorescences slender; flowers small.
 4. Leaves ovate to obovate, entire or obscurely crenate; sepals completely glabrous or only ciliate on the margins; inflorescence a pseudoraceme; branches subglabrous.
 5. Leaves ovate, acute at apex, leaves 2.5 cm. broad, margin entire; sepals ciliate; inflorescence axis about 1.5 cm. long. 17. *Schinus Venturii*
 5. Leaves narrowly ovate or lance-ovate, subacute to obtuse at apex, 2 cm. broad or less, margin irregular or somewhat regularly but obscurely crenate; sepals not ciliate or extremely sparsely so; inflorescence axis (of staminate plants) often 3 cm. long (of pistillate plants much shorter).
 16. *Schinus myrtifolius*
 4. Leaves lance-ovate to lance-oblong, regularly and coarsely crenate-serrate; sepals puberulent on outer surface; inflorescence usually a panicle; branches sparsely to densely short-pilose.
 5. Branches and leaves sparsely short-pilose. 18. *Schinus gracilipes*
 5. Branches velvety pilose; leaves velvety pilose when young.
 18a. *Schinus gracilipes* var. *pilosus*
 3. Leaves subcoriaceous to coriaceous, orbicular to ovate; inflorescence coarse, flowers large.
 4. Branches and leaves velvety pilose; leaves sinuate-dentate; base obtuse.
 5. Leaves oblong, subcoriaceous. 19. *Schinus velutinus*
 5. Leaves rotund, coriaceous. 20. *Schinus Kauselii*
 4. Branches and leaves glabrate.
 5. Leaves subcoriaceous, irregularly sinuate-dentate, base obtuse.
 21. *Schinus latifolius*
 5. Leaves coriaceous.
 6. Leaves cuneate to subcuneate at base, entire to crenate-dentate, heavily coriaceous, subacute to acute at apex, ovate. 22. *Schinus patagonicus*
 6. Leaves truncate at base, coriaceous, obtuse to acute at apex, orbicular to ovate.

7. Leaves obtuse at apex, orbicular-cvate, entire to obscurely crenate-serrate.
23. *Schinus montanus*
7. Leaves acute at apex, ovate, crenate-serrate.
22a *Schinus patagonicus* var. *crenuloides*
1. Leaves compound or rarely some simple; inflorescences mostly panicles; stems not spinescent.
Subgenus *Euschinus*
2. Leaves simple or compound; uppermost leaflets confluent; leaflets variable in number, shape and margin; fruit about 5 mm. in diameter.
24. *Schinus Pearcei*
2. Leaves compound; upper leaflets rarely confluent; leaflet number and shape fairly constant.
3. Fruit about 8 mm. in diameter.
4. Leaflets usually 15 or more, narrowly lanceolate; inflorescences terminal and auxillary.
5. Inflorescence often exceedin the leaves in length, glabrate; terminal leaflet usually present.
6. Leaflets thinly subcoriaceous, broadly lanceolate, usually regularly crenate-serrate, but often entire, usually acuminate. 25. *Schinus Molle*
6. Leaflets subcoriaceous lanceolate to linear-lanceolate, entire, irregularly crenate-serrate, or regularly crenate-serrate, usually obtuse or acute at least in the subfloral leaves, cuspidate. 25a *Schinus Molle* var. *Areira*
5. Inflorescence usually much shorter than the leaves, sparsely short-puberulent; terminal leaflets usually absent. 25b *Schinus Molle* var. *Rusbyi*
4. Leaflets usually 15 or less.
5. Leaflets 5-13, broadly lanceolate, entire, serrate, or sinuate-dentate.
6. Leaflets entire or with a few dentitions near the upper end, mostly less than 1.5 cm. long; shrubs to 3 m. high; leaves, stems and inflorescence glabrate or sparsely pilose. 26. *Schinus weinmannifolius*
6. Leaflets entire to serrate, mostly over 2 cm. long; shrubs to 3. m. high.
7. Leaves and stems glabrous; leaflets lanceolate, entire or with a few coarse dentitions at the upper end; rachis usually narrowly winged.
26a *Schinus weinmannifolius* var. *angustifolius*
7. Leaves and stems pilose at least at first; leaflets entire to regularly serrate; rachis mostly broadly winged.
26b *Schinus weinmannifolius* var. *dubius*
5. Leaflets 13-15, narrowly lanceolate, entire or sparsely serrate.
26c *Schinus weinmannifolius* var. *Hassleri*
3. Fruit about 5 mm. in diameter; leaflets fifteen or less; inflorescence usually axillary.
4. Leaflets subcoriaceous, obliquely nerved, oblanceolate and aliminate to broadly oblanceolate, obtuse and mucronate; terminal leaflet usually not developed; inflorescence usually much shorter than the leaves.
27. *Schinus lentiscifolius*
4. Leaflets thinnish, not obviously obliquely nerved, ovate or obovate, obtuse or acute; terminal leaflet developed; inflorescence usually equalling the leaves in length.
5. Leaflets mostly 7-13, usually subacute or acute at apex, terminal leaflet not noticeably larger than the lateral ones.
6. Stems and leaves glabrous (or very sparsely pilose).

7. Leaflets subacute or obtuse.
28. *Schinus terebinthifolius*
7. Leaflets acute.
28a *Schinus terebinthifolius* var. *acutifolius*
6. Stems and leaves pilose.
28b *Schinus terebinthifolius* var. *Pohlianus*
5. Leaflets mostly 3-7, usually obtuse at apex, terminal leaflet usually noticeably larger than the lateral ones.
6. Stems and leaves pilose.
28b *Schinus terebinthifolius* var. *Pohlianus*
6. Stems and leaves sparsely pilose
28d *Schinus terebinthifolius* var. *rhoifolius*

Subgenus **DUVAUA** (Kunth) Barkley, Brittonia 5: 165. 1944.

Duavaa Kunth, Ann. Sci. Nat. 12: 340. 1824.
Section *Davaua* Marchand, Rev. Anac. 164. 1869.

Armed or unarmed shrubs and small trees; leaves simple; inflorescences pseudoracemes or (rarely) small panicles. Southern South America.

Section **EUDUVAUA** Barkley, Brittonia 5: 165. 1944.

Shrubs and small trees having spinescent branches and small leaves.
Type species: *Schinus polygamus*: (Cav.) Cabr. in Frenguelli, Inst. Mus. Univ. Nac. La Plata 2: 269. 1937, emend. I. M. Johnston, Jour. Arnold Arb. 19: 254. 1938.

1. *Schinus Marchandii* Barkley, Brittonia 5: 165. 1944.

Schinus polygamus f. *australis* Cabrera, Rev. Mus. La Plata 22: 30 in part. 1938.
Schinus polygamus f. *chubutensis* Cabrera, Rev. Mus. La Plata 22: 30. in part. 1938.

Shrubs to 3 meters; branches glabrous, brown to brownish, becoming yellowish-tan or yellowish-gray; branchlets rather abundant, very stout, spinescent; leaves coriaceous, 15-43 mm long, 5-17 mm broad, ovate to ovate-lanceolate, acute to obtuse at the apex, the margin entire or essentially so, rarely with a few obscure serrations, the base cuneate, petiole 2-4 mm long; inflorescence-axis coarse, 4-10 mm long, glabrous, with few flowers; bracts deltoid-ovate to very broadly deltoid, obtuse, sparsely pubescent on the outer surface, ciliate with short simple hairs and a few clavate glandular hairs; pedicels coarse, glabrous or very sparsely puberulent, about 7 mm long; sepals deltoid, acute or acuminate, gla-

brate on the outer surface, ciliate with long simple hairs; petals lanceolate, truncate, about 2.5 mm long; fruit about 8 mm in diameter.

Type: Argentina: Santa Cruz: Deseado: Tehuelches; 300 m. alt.; 15 December 1928, A. Donat 95 in the Herbarium of the California Academy of Sciences.

Distribution: Argentina from Santa Cruz, Chubut, Río Negro and Neuquén.

Schinus Marchandii is a very distinctive species with coriaceous leaves and heavy spinose branches. The leaves are similar in shape to those of *S. O'Donellii* but are more coriaceous and similar to some specimens of *S. patagonicus* but that species does not have spinose branches. The fruits of this species are similar to those of *S. Johnstonii* and *S. O'Donellii*, this species having fruit about 8 mm long, 10 × 7 mm broad and being deeply indented at the apex. The leaves are usually entire.

Specimens examined: ARGENTINA: NEUQUÉN: Feb. 1936, Moloko 1450 (BABosq). *Lacar*: San Martín de los Andes, Marzo 1936, Neumeyer 1299 (BABosq). *Minas*: Cordillera del Viento, arroyo Chacay Melchue, 11 Marzo 1912, Pastore 8 (SI). *Zapala*: Cerro Lotena, 900 m alt., Sept.-Nov. 1927, Amman 2 (M); Zapala, 3 Dic. 1944, Descole 2142 (LIL); 5 km al norte de Zapala en el camino Los Lapas, 23 Dic. 1947, Krapovickas 2678 (BAB). RÍO NEGRO: Ñorquinco: Ñorquincó, 26 Oct. 1908, Skottsberg 897 (UPS); *Pilcaniyeu*: Los Juncos, 5 Marzo 1942, Pérez s.n. (BA). 25 de Mayo: Languinéu, Los Menucos, 8 Febr. 1945, Castellanos s.n. (LIL). CHUBUT: *Escalante*: Pico Salamanca, 25 Enero 1932, Castellanos s.n. (BA); Cañadón Pilar, 60 Km n. of Comodoro Rivadavia, 380 m alt., 24 Dic. 1938, Eyerdam, Beetle & Farraz, 1 Nov. 1945, O'Donell 3342 (LIL); and 3361 (LIL, S); Estancia Begoña, 30 Km al NW de Comodoro Rivadavia, 2 Nov. 1946, Soriano 2021 (SI); *Sarmiento*: al NNW del Lago Musters, Las Horquetas, 20 Enero 1940, Feruglio s.n. (BA); Colonia Sarmiento, 12 Nov. O'Donell 3471 (LIL). SANTA CRUZ: 2 Enero 1905, Dusén 5574 (S); 1882-1884, Moreno & Meseta de Espinosa, 25 Nov. 1929, Feruglio s.n. (BA); Río Santa Cruz, 12 Feb. 1903, Pennington 464 (BAF). *Copen-Aike*: Comandante Piedra Bueno, 2 Dic. 1945, O'Donell 3826 (LIL, U). Deseado: Puerto Deseado, 27 Enero 1896, Alboff s.n. (CORD); Puerto Deseado, (BAB, SI). *Lago Buenos Aires*: Lago Buenos Aires, 21 Febr. 1932, Castellanos s.n. (BA); Valle Fénix, Patagonia andina, 10 Dic. 1908, Skottsberg s.n. (BA, SGO) and Río Fénix, 10 Dic. 1908, 622 (S, UPS). MAGALLANES: Puerto Julián, 25 Marzo 1917, Bonarelli s.n. (BA); San Julián, 25 Nov. 1945, O'Donell 3676 (LIL).

2. *Schinus O'Donellii* Barkley sp. nov.

Duvava dependens var. *patagonica* Phil., Anal. Univ. Chil. 23: 451, 1863.

Schinus dependens f. *patagonica* (Phil.) Cabr. Rev. Mus. La Plata n.s. 2: 35. 1938.

Litreä montana var. *patagonica* Philippi, Linnaea 33: 39. 1864 pr. p., but not including type.

Fruticosa; ramis glabris, spinosis, crassis, ramulis subligneis conspicuis; foliis coriaceis vel subcoriaceis, glabris vel subglabris, obtusis ad apicem, cuneatis ad basin, semidecurrentibus, laminis 1-2 cm longis, 4-1 cm latis, petiolis 2-5 mm longis; pedicels 2.5 mm longis, glabris; sepalis 5 mm longis, deltoid-ovatis, subglabris, ciliolatis; petalis obovatis. glabris, 2 mm longis; drupis 7 mm latis.

Tree or shrub to 2 meters; elongated branches glabrous, very pungent, at first brownish but soon becoming creamy-gray in color and very thick, short-shoots conspicuous, dark, often 6-8 mm long; leaves on the new branches coriaceous while the fascicled leaves of older branches are thinly so and much more lobate, leaves glabrous (or rarely microscopically pilose-puberulent), obovate to oblanceolate, irregularly lobate serrate or rarely repand-undulate (juvenile leaflets apparently lobately repand-serrate), obtuse at apex, cuneate at base, semi-decurrent, lamina 1-2 cm long, 4-1 cm broad, etiole 2-5 mm long; inflorescence a pseudoraceme 3-5 mm long; bracts pubescent with appressed hairs which are especially abundant near the apex, ovate-deltoid, .8 mm broad at base, 1 mm long; pedicels 2.5 mm long, glabrate or sparsely pubescent with retrorse hairs; sepals .5 mm long, deltoid-ovate, glabrous except for a few hairs outside at the base and ciliate at the margin; petals obovate, glabrous, 2 mm long; fruit 7 mm broad, subspherical, lavender.

Type: Argentina: Mendoza: San Carlos: camino a la Laguna del Diamente, 2600 m. alt., 26 Enero 1950, "arbusto de 1 metro con frutos morados", A. Cuezzo y Fred A. Barkley 20Mz415 in Herbario Miguel Lillo 290919.

Common name: Molle.

Distribution: Río Negro, Neuquén and Mendoza.

A beautifully shaped, small tree or clustered together as a shrub.

It seems most closely related to *S. Marchandii* and *S. Johnstonii*.

Specimens examined: ARGENTINA: MENDOZA: Valle de Atuel, 5 Febr. 1924. Kühn 5 (SI). Catabuini, Abril 1888, Kurtz s.n. (CORD);

Las Heras: Resbardo, 2100 m alt., Enero 1921, Carete 253 (LP). *San Carlos*: El Papagallo, 1900 m. alt., 27 Enero 1950, Balegno & Palacios 4376 (LIL) and Cuezzo & Araque 1513 (LIL) and Barkley 20Mz513 (LIL); camino a la Laguna del Diamonte, 2600 m alt., 26 Enero 1950, Cuezzo & Barkley 20Mz415 (LIL) Refugio General Alvarado, 2400 m alt., 27 Enero 1950, Cuezzo & Barkley 20 Mz489 (LIL); quebrada del paso de Cruz de Piedras, 2150 m. alt., 20 Enero 1941, Ruiz 7277 (LIL). *San Rafael*: Malargue, 13 Febr. 1944, Burkart 14807 (SI); Payún Liso, 29 Enero 1941, Castellanos s.n. (BA); Valle Los Molles, 1800 m alt., 9 Febr. 1947, Dawson & Pujals 1654 (BAB); Cordillera de Malahué: Rodeo Viejo, 7 Febr. 1892, Kurtz 7183 (CORD); Cienaguita, Río Salado, 25 Enero 1946, Rossi 265 (LIL), Las Animas, Río Salado, 20 Febr. 1946, 266, El Alfalfalito, Río Salado, 25 Febr. 1946, 268 (LIL), and Los Molles arroyo Pedroro, 4 Febr. 1946, Rossi 269 (LIL); Portezuelo del Viento, 29 Nov. 1944, Ruiz 9734 (LIL, Ruiz L.); Los Molles, 2100 m. alt., 30 Die. 1949, Sleumer 605 (LIL); *Tunuyán*: Quebrada Capitán Lemos, 2300 m alt., 1 Febr. 1950, Palacios & Cuezzo s.n. (LIL); Paso del Portillo dieto, de los Rosas, 23 Die. 1933, Ruiz 1951 (LIL, LP, Ruiz L.); *Tupungato*: 2500 m. alt., 10 Die. 1935, Ruiz 3638 (LIL, LP, Ruiz L.). *NEUQUÉN*: La Legua, Rincón Grande, 3 Nov. 1941, Jones 27 (LP); entre Candil y La Bomba, 9 Febr. 1941, Pérez s.n. (BA). *Confluencia*: Chacay-có, Febr. 1940, Castagner 33 (LP). *Chos-Malal*: cerca de Chos-Malal, 15 Die. 1944, O'Donell 2017 (LIL). *Pilcaniyeu*: Comallo, 7 Die. 1938, Cabrera 4804 (LP); Comallo, 5 Enero 1945, Meyer 7755 (LIL); Paso Flores, Enero 1921, Pico s.n. (BAF). *Río NEGRO*: 7 Die. 1938, Cabrera 1801 (GH).

CHILE: MAGALLANES: Pampa de Patagonia, Cox s.n. (SGO).

3. *Schinus Johnstonii* Barkley, Brittonia 5: 171. 1944.

Schinus polygamus f. *australis* Cabrera, Rev. Mus. La Plata 22: 30, in part. 1938.

Intricately branched shrub; branches minutely sparse-pubescent or glabrous, at first yellowish-tan to brown, becoming grayish, the branchlets moderately slender, rigid, numerous, approximately at right angles to the thick main branches, spinescent; leaves minutely sparse-pilose to glabrous, dimorphic, coriaceous, with the veins more or less deeply impressed; shorter leaves very broadly obovate, truncate at the apex, often submucronate, obtuse at the base, usually entire, rarely undulate-crenate or crenate-dentate at the apex, 3-7 mm long, 4-10 mm broad; longer

leaves spatulate to narrowly obovate, usually obtuse (rarely acute) at the apex, cuneate at the base, entire or rarely obscurely crenate-dentate, or even dentate; (stump shoots producing broadly ovate, repand marginated leaves, 2.5 by 3.5 cm), 3-7 mm broad, 11-17 mm long; petiole up to 1 mm long, glabrous or sparse-puberulent; inflorescence-axis 2-5 mm long, unbranched, congested, many-flowered, with fine sparse puberulence; bracts deltoid-ovate, short-puberulent with simple hairs and a few clavate glandular hairs, the margin similarly sparsely ciliate; pedicels about 2 mm long, slender, glabrous; sepals ovate-deltoid, acute, densely ciliate on the margin with short simple hairs; petals narrowly obovate, truncate, glabrous, about 1.5 mm long; fruit dark blue, about 8 mm in diameter.

Type: Argentina: Río Negro: Vicinity of General Roca, 250-360 m alt., Sept. 1914-Sept. 1915, Fischer 113 in the herbarium of the Chicago Natural History Museum.

The dimorphic nature of the leaves is often not obvious, since all of the leaves of a specimen are often of one type or the other. The leaves of this species are very similar to those of *Schinus fasciculatus* var. *arenicola* so that in regions where the two occur it is often difficult to separate specimens of the two. However, in Mendoza *Sch. Johnstonii* usually occurs at higher altitude than *Sch. fasciculatus* var. *arenicola*. When bearing fruit they are easily distinguished.

Common names: Molle, Molle morado.

Distribution: Argentina from San Juan and Mendoza to Río Negro and Santa Cruz.

Specimens examined: ARGENTINA: SAN LUIS: *Bolívar*: Maipú 750 m alt., 28 Die. 1927, Geráldez 110 (BAB). SAN JUAN: Cordillera del Espinacito, La Ciénaga redonda, 5 Febr. 1897, Kurtz 9535 (BAF, CORD); *Calingasta*: Cuesta de las Cabeceras, 2600 m. alt., 18 Mayo 1937, Spegazzini 505 (BAB). MENDOZA: Oct. 1861, Díaz s.n. (SGO); Miers 1196 (BM); Cuesta de Chanes, Febr. 1905, Bodenbender 12883 (CORD) and 12877 (CORD); Gillies 739 (BM); Hedger (S); Manantiales de las Chileas, 1667 m alt. 17 Enero 1897, Kurtz 9282 (CORD); Arroyo Tayén-geyu, 21 Abril 1888, 6405 (CORD) and entre Agua de los Jagüeles y el Cº Bola, 17 Febr. 1892, Kurtz 7215 (CORD); Sanzin s.n. (BA) and Punetilla, 5 Oct. 1913, 47 (SI). *Godoy Cruz*: Cerro de la Gloria, 900 m alt., 23 Die. 1949, Sleumer 351 (LIL) and Challao, 1100 m alt. 24 Die. 1949, 410 (LIL). *Las Heras*: Uspallata, 1800 m alt., 20 Die. 1949, Araque 777 (LIL) and Pla-

nicie muy seca cerca Uspallata, 1800 m alt., 20 Dic. 1949, 781 (LIL); Uspallata, 1800 m alt., 20 Dic. 1949, Araque & Barkley 19Ar771 (LIL); Villavicencio, 2000 m alt., 20 Dic. 1949, Barkley 19Ar756 (LIL), Uspallata, 1800 m alt., 20 Dic. 1949, Barkley 19Ar770 (LIL), 19Ar777 (LIL), 19Ar780 (LIL), 19Ar781 (LIL), and 19Ar783 (LIL), and Villavicencio, 2000 m alt., 25 Dic. 1949, Barkley 19Ar952 (LIL), Villavicencio, 2000 m alt., 29 Enero 1950, Borsini 1288 (LIL); Agua de los Chilenos, 1500 m alt., 12 Dic. 1949, Cáceres, Melis & Paci 334 (LIL); La Emporada et San Isidro, 12 Oct. 1936, Carete & Ruiz 4087 (LIL, Ruiz L.); Villavicencio, 1800 m alt., 25 Enero 1950, Cuezzo & Balegno 1924 (LIL), and Las Polvaredas, 1850 m alt., 24 Enero 1950, 1866 (LIL); Cordillera del Paramillo de Uspallata, 30 Enero 1897, Kurtz 9472 (CORD); Challao, 900 m alt., 24 Dic. 1949, Melis & Barkley 19Ar894 (LIL); Agua de los Chilenos, 1500 m alt., 12 Dic. 1949, Melis, Cherubini & Paci 333 (LIL); Challao, 900 m alt., 24 Dic. 1949, Paci & Araque 894 (LIL); Las Polvaredas, 17 Febr. 1934, Pérez s.n. (BA); Villavicencio, 2 Feb. 1933, Ruiz 1038 (LIL, LP, Ruiz L.), Challao, 4 Feb. 1933, 1010 (LIL, LP, Ruiz L.), quebrada La emporada, 12 Oct. 1936, 4087, (LIL, LP), quebrada de la Mina Atala, 1 Nov. 1936, 4190 (LIL, LP, Ruiz L.), 7 Marzo 1937, 4399 (LIL, LP, Ruiz L.), quebrada de la Mina Atala, 8 Febr. 1937, 4453 (LIL, Ruiz L.), Uspallata, 19 Sept. 1938, 5308, (LIL, Ruiz L.), quebrada de San Isidro, 16 Oct. 1938, 5322, (LIL, Ruiz L.), quebrada de la Mina Atala, 1 Nov. 1938, 5342 (LIL, Ruiz L.), and quebrada de San Isidro, 24 Sept. 1939, Ruiz 6289 (LIL, Ruiz L.); Uspallata, 1780 m alt., 11 Sept. 1944, Semper 15 (LIL, Ruiz L.), Uspallata, 2000 m alt., 8 Abril 1945, 155 (LIL Ruiz L.), and Uspallata, 2000 m alt., 8 Abril 1945, Semper 544 (LIL); Villavicencio, 2000 m alt., 25 Dic. 1949, Sleumer 487 (LIL); Higueras, Enero 1896, Spegazzini 1380 (LP). *Luján*: Cacheuta, 21 Enero 1950, Araque 1267 (LIL) and Barkley 20Mz267 (LIL); Blanco Encalada y Cacheuta, 27 Enero 1947, Dawson & Pujals 1406 (BAB); Chacritas, 6 Enero 1948, García 497 (LIL); de las Cuevas a Cacheuta, 9 Febr. 1921, Hoseus 2279 (CORD); entre Mendoza y Cacheuta, 900 m alt., 17 Enero 1948, Hunziker 3183 (BAB); Chaeras de Coria, Oct. 1907, Jörgensen 12 (C); 5 Oct. 1934, Ruiz 2272 and La Crucesita, 20 Nov. 1938, 5377; Cacheuta, Oct. 1916, Ruiz 111 (BA); Cuchilla del Carrizal, 950 m alt., 12 Nov. 1944, Semper 120 (BAB, LIL, Ruiz L.) and 147 (LIL, Ruiz L.), La Crucesita, Nov. 1936, 4138 (LIL, LP, Ruiz L.), and Potrerillos, 26 Sept. 2 Dic. 1942, 8228 (LIL, Ruiz L.) and s.n. (LIL, Ruiz L.). *Mai-pú*: Las Barrancas, 20 Sept. 1943, Covas 2758 (Cuyo, LIL); Pedregal

ad aquaeductus, 25 Enero 1936, Ruiz 3749 (LIL, LP, Ruiz L.). *San Carlos*: Refugio General Alvarado, 2400 m alt., 27 Enero 1950, Cuezzo & Barkley 20Mz477 (LIL). *San Rafael*: entre Malargüe y Fortín Malargüe, 12 Febr. 1942, Burkart, Troncoso & Nicora 14149 (SI); Río Salado, Pozo de las Animas, 14 Enero 1941, Castellanos s.n. (LIL) and 111 (LIL) and pozos petroleros de Ranquilco, 27 Enero 1941, s. n. (BA); Arroyo de las Cienaguitas, Río Salado, 1700 m alt., 12 Feb. 1945, Lourteig 763 (LIL); La Vigorosa, Dic. 1934, Poyssegur & Castro 47 (BAB); Mihuil, 15 Nov. 1949, Romanella 3 (LIL); Agua Blanca, Río Salado, 23 Enero 1946, Rossi 267 (LIL); La Sabador, 750 m alt., 1 Dic. 1940, Ruiz 6986 (LIL, Ruiz L.) and entre Malahue y Bordes Blancos, 1400-1800 m alt., 27 Enero 1941, 7400 (LIL, Ruiz L.); Valle del Río Atuel, Enero-Feb. 1897 Wilczek 307 (G). *Tunuyán*: 10 Km al oeste de Campo de los Andes, 1500 m alt., 15 Enero 1950, Araque 1191 (LIL) and Barkley 20Mz191 (LIL) and Cáceres & Barkley 20Mz192 (LIL); Arroyo La Remonta, 1500 m alt. 15 Enero 1950, Melis & Cáceres 78 (LIL) and Melis & Paci 776 (LIL); Quebrada Capitán Lemos, 2300 m alt., 1 Febr. 1950, Palacios & Cuezzo 4488 (LIL); Los Arboles, 1 Enero 1935, Ruiz 2864 (LIL, LP, Ruiz L.) and La Paz, 19 Marzo 1944, 8965 (LIL, Ruiz L.). *Tupungato*: 5 Oct. 1934, Ruiz 2281 (LIL, LP, Ruiz L.), ad ripas arroyo del Novillo Muerto, 13 Dic. 1935, 3567 (LIL, LP, Ruiz L.) and Toma del Canal Matriz Tupungato, 13 Oct. 1934, Ruiz 2369 (LP); lomas cerca de Tupungato, 27 Dic. 1949, Sleumer 350 (LIL). *Neuquén*: Cordillera del Viento, Arroyo Chacay Melehue, 11 Marzo 1912, Pastore 8 (LP); Fuerte 4^a División, 23 Abril 1879, Niederlein s.n. (CORD) and Salinas Oloas, 22 Junio 1879, s. n. (CORD). *Añelo*: Plaza Huineul, 24 Sept. 1939, Plotnick 21 (LP). *Catani-lil*: 9 Febr. 1941, Pérez s.n. (BA). *Chos-Malal*: cerca de Chos-Malal, 16 Dic. 1944, O'Donell 2024. *Lacar*: Limay, Paso Flores, 20 Febr. 1938, Castellanos s.n. (BA); San Martín de los Andes, 1 Nov. 1937, Rasp s.n. (SI). *Picun-Leufú*: Vado del Picun-Leifú entre Zapala y La Bomba, 12 Enero 1939, Pérez s.n. (BA). *Río Negro*: en las cereanías de Río Negro, 10 Sept. 1874, Berg 83 (LP) and 176 (CORD); Scala 21 (LP); Nov. 1937, Escalada 373 (BABosq); 1913, Spegazzini 1355 (LP). *Adolfo Alsina*: Viedma, 16 Nov. 1928, Castellanos s.n. (BA). *Avellaneda*: Colonia Josefa, Febr. 1904, Girola 98 (BAB). *General Roca*: Allen, Marzo 1943, Cuccioli 29 (BAB); General Roca, 30 Oct. 1913, Fisher s.n. (BAB) and General Roca, 250-360 m alt., 25 Mayo 1914, Fischer 113 (F-type, GH, MO, NY, SI, US). *Pichi Mahuida*: Río Colorado, Nov. 1946, Hayward s. n. (LIL). *San An-*

tonio: a las Grutas, 19 Nov. 1928, Castellanos s.n. (BA) and Bajo de la Bombilla, 20 Nov. 1928, s. n. (BA); Puerto San Antonio, 3 Feb. 1903, Pennington 18 (BAF). *Valcheta*: Dique, Valcheta, 12 Die. 1944, Meyer 7273 (LIL). *CHUBUT*: Agosto 1900, Basaldúa s. n. (LP); 1903, Fernández 47 (BAB); Die. 1899-Enero 1900, Illín s. n. (BA), Enero-Marzo 1899, 3 (BAB), 6 (BAB), s. n. (BAB), río Coreovado, Febrero-Marzo 1900 s. n. (BAB), río Coreovado, Febrero 1903, s. n. (BA) and 9 (SI), travesía de Rawson a la Cordillera, 1-30 Nov. 1903, 80 (SI, UC) and 82 (BAF), and Die. 1903, Illín 28 (BAB) and 111 (BAB); Spegazzini 1368 (LP), 1899, 1369, (LP) and Spegazzini 1370 (LP). *Viedma*: Puerto Madryn, 30 Mayo 1917, Bonarelli s. n. (BA); Madryn, 7 Enero 1914, Hauman 14 (SI); Puerto Madryn, 24 Oct. 1945, O'Donell 3220 (LIL) and 3223 (LIL); Playa de Punta Norte Península Valdez, 20 Nov. 1912, (Exp. Roveretto) s. n. (BA) and Salina Grande Península Valdez, 13 Dic. 1913, s. n. (BA). *Escalante*: Bahía Bustamante, 29 Enero 1932, Castellanos s. n. (BA) and Pico Salamanca, 25 Enero 1932, 6086 (LP); Comodoro Rivadavia, Julio 1942, Devoto 6 (BAB). *Florentino Ameghino*: Camarones, 1912, Aurelius 4 (S); Estancia La Tentonia, Cabo Raso, 28 Oct. 1925, Hoseus 32 (CORD); Lochiel, 30 Km al oeste de Camarones, 21 Oct. 1946, Soriano 1956 (SI). *Mártires*: Valle de las Plumás, 4 Dic. 1925, Hoseus 137 (CORD). *Rawson*: 30 Oct. 1945, O'Donell 3332 (LIL). Trelew, 17 Oct. 1946, Soriano 1889 (SI). Trelew, Mayo 1899, Tomellier 411 (BAB). *Río Senguerr*: La Laguna Blanca, 15 Dic. 1901, Koslowsky 196 (SI). *SANTA CRUZ*: 1882-1884, Moreno & Tonini 390 (NY); Die. 1899, Spegazzini 1366 (LP), 1899, 1367 (LP), Conven-leofu, 1900, 1372 (LP), Febrero 1882, 1374 (LP), Oct. 1897, 1375 (LP), and Carmen de Patagones, Febrero 1898, Spegazzini 1377 (LP).

4. *Schinus praecox* (Griseb.) Spegazzini in Speg. & Girola, Catálogo Descripción Maderas. (An. Soc. Rural, Argent. 1910): 392. 1911.

Duvaua praecox Griseb., Pl. Lorentz 68. 1874.

Duvaua praecox var. *montana* Griseb. Symb. Fl. Argent. 92. 1879.

Duvaua praecox var. *hyemalis* Griseb. Symb. Fl. Argent. 92. 1879.

Shrub of 1 to 2 meters; branches rigid, spinos, glabrous, at first maroon but soon gray; leaves coriaceous, glabrous, acute at apex, subcuneate at base, margin entire to crenate-subentire, rarely dentate-sinuate, dimorphic, ovate and acute, 3-20 mm long., 1.5-6 mm wide, or li-

near-lanceolate and the usually obtuse at the apex, 1-2 cm long, 2.5-4 mm wide, always distinctly petiolate, petiole. 5-2.5 mm long; inflorescence a pseudoraceme with axis about 3 mm long, glabrous; bracts deltoid, .7 mm long., 1 mm broad, acute, glabrous except ciliolate on the margins; Pedicel 1.4 mm long, glabrous; sepals deltoid-lanceolate, .5 mm long, .3 mm broad, glabrous except ciliate on the margin; petals obovate, obtuse, glabrous, 1.8 mm long, 1 mm broad, entire or irregular; fruit lavender, 7 mm wide, 3 mm thick and 4 mm tall.

Type: Argentina: Córdoba: cerca de las Caleras, 17 Sept. 1871, Lorentz 3816 in the herbarium of the University of Córdoba.

This species is an uncommon, one, similar to *Schinus Johnstonii* and *Sch. fasciculatus* var. *arenicola*; Castellanos (8 Enero 1927) appears similar to the former while Millan (20 Agosto 1926) and Giardelli 434 are similar to the latter. Hieronymus (11 Nov. 1878) even shows a similarity to *Sch. Marchandii*. The leaves are dimorphic, but the dimorphism is different from that of either *Sch. fasciculatus* or *Sch. Johnstonii*. Kraglievich (Nov. 1928) and Hieronymus (9 Agosto 1876) have lanceolate leaves, while Hieronymus (10 Nov. 1881) has rotund and lobate leaves, other specimens often show both types on the same specimen.

Common name: Molle de curtier.

Specimens examined: ARGENTINA: CÓRDOBA: La Granja, 20 Sept. 1926, Fiardelli 434 (SI). *Calamuchita*: cercanías de San Agustín, 8 Sept. 1891, Ritt 7005 (CORD). *Capital*: 1918, Bruch s. n. (BA); Estancia Germania, Junio-Die. 1874, Lorentz 135 (G). *Colón*: Sierra Chica en las orillas del Río Primero, 9 Agosto 1876 Hieronymus s. n. (CORD), Sierra Chica al Norte del Pan de Azúcar, 10 Nov. 1881, s. n. (G), and lomas entre Saldán y el Río Primero, 9 Agosto 1876, Hieronymus 594 (CORD-TYPE, *Duvaua praecox* var. *montana* Griseb.); Casas Bamba, 22 Junio 1909, Stuckert 20238 (CORD). *Cruz del Eje*: Sierra Grande entre Salsacete, Los Gigantes, 26 Oct. 1949, Hunziker 7847 (CORD). *Punilla*: Capilla del Monte, Aguila Blanca, 16 Junio 1945, Castiglioni 1772 (BABosq) and Capilla del Monte, Balumba, 19 Junio 1945, 1774 (BABosq) Capilla del Monte, Oct. 1907, Doering 14583a (CORD); Copina, 1600 m alt., 17 Oct. 1946, Hunziker 6956 (CORD), Copina en Sierra Grande, 1600 m alt., 17 Oct. 1949, 6987 (CORD) and 7451 (CORD), Copina, 1600 m alt., 15 Agosto 1949, 7678 (CORD) and 7679 (CORD), San Antonio de Amedondo, 23 Oct. 1949, 7828 (CORD), Lomas de San Bernardo, 23 Oct. 1949, 7837 (CORD)

and La Lolda a Huerta Grande de la Sierra Chica, 5 Nov. 1950, Hunziker 8464 (CORD); entre El Durazno y Río Yuspe, alt. 1200-1400 m, 15 Dic. 1949, Meyer & Sleumer 15676 (LIL); San Esteban, 22 Agosto 1936, Nicora 857 (SI). *Río 1º*: cerca de las Caleras, 17 Sept. 1871, Lorentz 331b (CORD-TYPE). *San Alberto*: Sierra Achala al norte de la Cuesta de Copina, 11 Nov. 1878, Hieronymus s.n. (CORD, G) and al pie de los Gigantes, Sierra Achala, 5 Die. 1878, s.n. (CORD); Los Hormillos entre M. Clavero y V. Dolores, 24 Oct. 1949, Hunziker 7852 (CORD). *Santa María*: Malagüeño, 7 Febr. 1950, Araque & Barkley 20Cb041 (LIL); alrededores de Malagüeño, 9 Junio 1946, Hunziker 6662 (LIL, CORD), 7 Oct. 1949, 7363 (LIL, CORD) and 7364 (LIL, CORD); Malagüeño, 24 Agosto 1871, Lorentz s.n. (CORD); Malagüeño, 7 Febr. 1950, Seolnik & Barkley 20Db044 (LIL). *Totoral*: Ascochinga, Cordón Oriental, 20 Julio 1926, Millán s.n. (BA) and Ascochinga, 20 Agosto 1926, s.n. (BA). *SAN LUIS*: Sierras de San Luis, Canutal, 21 Dic. 1929, Castellanos s.n. (BA). *BUENOS AIRES*: *Bahía Blanca*: San Blas, Oct.-Nov. 1903, Ameghino s.n. (BA); 30 Nov. 1944, Deseole 2085 (LIL); Chasicó, Nov. 1928, Kraglievich s.n. (BA). *LA PAMPA*: *Maracó*: Maracó Chico, 8 Enero 1927, Castellanos s.n. (BA). *Rancul*: Estancia "El Bosque", 17 Sept. 1916, Rodríguez s.n. (NY). *Utracán*: General Acha, 200 m alt., 10 Enero 1944, Hunziker 4125 (CORD).

5. *Schinus fasciculatus* (Griseb.) Johnst. Jour. Arnold Arb. 19: 257. 1938.

Duvava fasciculata Griseb. Pl. Lorentz. 68. 1874.
Duvava praecox var. *glomerata* Griseb. Symb. Fl. Argent. 92. 1879.
Duvava spinescens Hort. ex Griseb. Symb. Fl. Argent. 93. in syn. 1879.
Duvava sinuata Griseb. Symb. Fl. Argent. 93. 1879.
Duvava spinosa Britton, Ann. N. Y. Acad. 7: 76, exel. syn. 1892.
Schinus Huynigan var. *heterophyllus* Kuntze, Rev. Gen. Pl. 32: 45. 1898.
Schinus polygamus f. *fasciculatus* Cabr. Rev. Mus. La Plata n.s. 2: 32. 1938.
Schinus polygamus f. *heterophyllus* Cabrera, Rev. Mus. La Plata n.s. 2: 33. 1938.

Shrub 6 to 8 meters in height; branches pilose or sparse-pilose when young, or cordate and subsesile and then subacute, often entire, later glabrate, brown later becoming gray, the branchlets slender, moderately abundant, spinescent; leaves sparsely pilose below, glabrate above, dimorphic, some short, broad, some long, narrow, rarely all the leaves of a plant of one type or all of the other; short leaves thinnish, obovate or

obcordate, often broader than long, truncate at the apex and often emarginate, obtuse at the base, crenate-dentate across the apex, crenate-serrate or entire, or on juvenile branches even incised lobed, 8-20 mm long, 8-15 mm broad; long leaves spatulate to narrowly oval, obtuse to subacute at the apex, cuneate to subacute at the base, entire, irregularly lobed, crenate-serrate, or on juvenile branches even incised-serrate, 18-42 mm long, 3-17 mm broad; petiole 1-2 mm long, pilose; inflorescence 817 mm long, often with short side-branches, expanded, the flowers not congested, the axis pilose to sparse-pilose, rarely with inflorescence congested; sepals ovate-deltoid, pilose with long white hairs, ciliate on the margin with long white hairs and a few clavate glandular hairs, long-persistent; pedicels about 2 mm long, slender, sparsely pilose with very long white hairs; sepals narrowly ovate, truncate, with a few very long white hairs on the dorsal surface, sparsely ciliate on the margin with long white simple hairs and a few clavate glandular hairs; petals narrowly ovate, glabrous; anthers ovoid; fruit 3-5 mm in diameter, violet.

Type: ARGENTINA: CÓRDOBA: *Capital*: Die.-Enero 1870, Lorentz 266 in the herbarium of the University of Córdoba.

Schinus fasciculatus is an extremely variable assemblage of wide distribution. The leaves are thin, dimorphic, variable, pilose (usually with long and sparse pilosity) in contrast to *Sch. fasciculatus* var. *arenicola*, which has thicker, glabrous leaves. Sometimes there is a specimen almost glabrous, (sparsely puberulent), which is difficult to place such as Venturi 1348. Stuckert 9851 shows the juvenile foliage. Lillo 7125 has leaves more coriaceous than typical. Castellanos 31111 is not typical. Donat 21, Bartlet 20440 and Bodenbender (Marzo 1905) approach the *Schinus piliferus* complex.

Common names: Molle, Molle blanco, Molle colorado, Molle de curtir, Molle Guajú, Molle Guazaú, Molle pispi, Molle Pispito, Molle Santiaqueño, Moradilla, Moradillo, Moye, Moye pispito, Trementina.

Distribution: Bolivia, Paraguay and Argentina south to Buenos Aires and Córdoba.

Specimens examined: BOLIVIA: Bang s.n. (NY); Tunari, Abril-Mayo 1892, Kuntze 5 (NY).

PARAGUAY: Ascaú-cué, 16 Abril 1885, Kurtz 391 (CORD) and Monteagudo, 24 Marzo 1885, 1758 (CORD). GRAN CHACO: Isla Poí-nanarva, Agosto 1934, Rojas 7082 (LP); Santa Elisa, Marzo 1903, Hassler 2825 (G. UC) and Abril 1903, 2825a (G); Pilcomayo River, 10 Febr.

1890, Morong 952 (NY). *Trinidad*: Asunción, Die. 1940, Rojas 9013 (LIL) and Agosto 1924, 7082 (LIL), Río Pilcomayo, Julio 1906, 5 (G), 5a (G), and 5b (G), and San Salvador, Marzo 1917, Rojas 2852a (BAF) and 2852 (BAF).

ARGENTINA: JUJUY: *San Pedro*: San Pedro, 10 Junio 1949, Reales 1412. *San'a Bárbara*: El Palmar, 8 Julio 1937, Cabrera 4085 (LP, NY). SALTA: Las Juntas, Die. 1886, Bruch s.n. (LP). *Anta*: entre Palermo y Anta, Mayo 1934, Ragonese 122 (BA, LP); Sierra Santa Bárbara, Schuef 77 (BA); Tollocche, 27 Junio 1933, Cabrera 3164 (BAB, LP, NY); Vinal Pozo, 3 Junio 1947, Lume 212 (LIL). *Rosario de la Frontera*: Entre Balboa y Recreo, 15 Junio 1923, Cabrera 3156 (BAB, LP, NY); Los Baños, 700 m alt., 10 Agosto 1929, Venturi 9331 (GH, S). *Rosario de Lerma*: Quijano, Enero 1937, Job 1559 (LP). TUCUMÁN: 2 Marzo 1906, Díaz 493 (BAB). *Capital*: Saladillo, 20 Oct. 1907, Lillo 7125 (LIL). *Burruyacu*: Cadillal, 600 m alt., 11 Nov. 1922, Schreiter 88 (LIL) and 10 Agosto 1929, s.n. (LIL); La Cruz, 15 Junio 1933, Leirano 9881 (LIL). *Lcales*: La Florida, 270 m alt., 18 Junio 1913, Monetti 17842 (NY) and Las Salinas, Mayo 1913, 14792 (LIL, NY); *Río Chico*: La Cocha, 540 m. alt., Feb. 1919, Bailetti 186 (LIL). *Tafí*: camino a Tapia Agosto 1941, Borsini 29 (LIL). Raco, 1100 m alt., 25 Julio 1943, Ruiz s.n. (BAFacC); entre El Molle y Amaiacha, 2600 m alt., 24 Mayo 1949, Sparre 6164 (LIL). *Trancas*: entre Tapia y El Cadillal, 30 Julio 1905, Lillo 4509 (LIL); Tapia, 600 m alt., Agosto-Sept. 1920, Schreiter s.n. (LIL), and Tapia, 700 m alt., 9 Julio 1921, Shreiter 2368B (LIL); Tapia 750 m alt., 18 Sept. 1921, Venturi 1348 (LIL), Vipos, 750 m alt., 5 Agosto 1923, 2290 (LIL), and Tapia, 750 m alt., 16 Agosto 1925, Venturi 2893 (BAB, LIL, NY, SI). FORMOSA: Abril 1918, Jörgensen 1950 (LIL) and Läufig, Marzo 1918, 1971 (LIL, MVM, NY); 22 Oct. 1900, Kerres 623 (BAB) and 1 Enero 1901, 64 (BAB); Mojón de Fierro, km 30 Ruta 11, 25 Marzo 1947, Reales 460 (LIL); Die. 1940, Rojas 9013 (SI). *Filagas*: Ruta 86 km 97, 14 Marzo 1949, Morel 7456 (LIL) and 15 Marzo 1949, 7497 (LIL); Pilagás, 5 Oct. 1945, Pierotti 4181 (LIL). *Pirané*: al N. a 5 Kms de Pirané, 5 Die. 1945, Morel 522 (LIL, S); Clorinda. Km 143 Ruta 11, Marzo 1947, Reales 353 (LIL); Laguna Verá, 4 Marzo 1948, Morel 4950 (LIL), Puente Angelito, 22 Abril 1948, 5469 (LIL), al E. de Puesto Porteño a 2 Kms, 1 Abril 1947, 2394, R. Porteño norte Clorinda, 30 Sept. 1946, 1402 (LIL), L. Blanca al Km 2 Ruta 11, 10 Marzo 1947, 2118 (LIL) and al Km 47 Ruta 86, 12 Abril 1948, Morel 5371 (LIL). CHACO: Km 333, 17 Julio 1930, Castellanos s. n. (BA); Km 173, Marzo 1912, Pouysseger s. n. (SI); Km

522, 17 Enero 1945, Ragonese & Cozzo 2603 (BABosq); Mayo 1935, Schulz 848c (LP). *Campo del Cielo*: Tao Pozo, 28 Agosto 1938, Carmelich 362 (BABosq) and 364 (BABosq); Pampa del Infierno, 15 Febr. 1947, Malvárez 723 (LIL); Pampa del Infierno, 30 Mayo 1945, Meyer 8535 (LIL); Capdevila, 12 Julio 1946, Schulz 916 (LIL) and Santa Sylvinia, 25 Enero 1947, 1119 (LIL, U). *Napalpi*: Quitilipi, 31 Dic. 1944, Aguilar 122 (LIL) and Avia Terai, 8 Enero 1945, 168 (LIL); Sáenz Peña, Aulds s.n. (LIL); Febr. 1935, Donat 21 (BAF); Avia Terai, 19 Junio 1945, Jovey 2908 (BABosq); Corzuela, 100 m alt. 17 Febr. 1947, Malvárez 751 (LIL); Machagay, 7 Junio 1945, Meyer 8747 (LIL). *Resistencia*: Margarita Belén, 20 Enero 1946, Aguilar 686 (C, LIL); Fortín Cardoso, Junio 1914, Curran 664 (LIL, US); Resistencia, 10 Marzo 1916, Lillo 18188 (LIL, NY); Margarita Belén, 13 Marzo 1947, Malvárez 1214 (LIL) and Fortín Cardoso, 17 Marzo 1947, 1325 (LIL), Resistencia, Méyer 12 (LP) and Fontana, Julio 1933, 475 (LIL); Barranqueras, 14 Nov. 1913, Mumiez, Acevedo & Curran 15 (BAB); Resistencia, 16 Junio 1944, Rojas 11234 (LIL); Colonia Benítez, 2 Sept. 1909, Rojas 15 (CORD); Colonia Benítez, Marzo 1935, Schulz 848 (LP, NY); Resistencia a Barranqueras, 23 Marzo 1948, de la Sota 811 (LIL); Resistencia, Enero 1886, Spegazzini 1383 (LP) and 1396 (LP); Margarita Belén, 7 Mayo 1948, Vega 859 (LIL). *Río Bermejo*: 1 Abril 1900, Homberg s. n. (BA); Pindó, 14 Marzo 1947, Malvárez 1260 (LIL). *Río Teuco*: La Fidelidad, Abril 1918, Jörgensen 1950 (BA, MVM, NY). *Tapenaga*: Villa Angela, 3 Febr. 1930, Boffa 8 (LP, NY); 15 Julio 1930, Fonseca s.n. (BA); Enrique Urién, 26 Enero 1946, Schulz 864 (LIL). CORRIENTES: *Capital*: 13 Febr. 1944, Ibarrola 49 (LIL) and Chacarita, 15 Abril 1944, 266 (LIL); Corrientes, 28 Marzo 1948, de la Sota 983 (LIL); *Empedrado*: Empedrado, 3 Marzo 1950, Schwarz 9945 (LIL), Antonio González, 6 Marzo 1950, 10036 (LIL) and Manuel Derqui, 15 Marzo 1950, Schwarz 10206 (LIL). *Goya*: Goya, 4 Nov. 1913, Muniez, Acevedo & Curran 335 (36) (BAB, LIL). *Saladas*: Ambrosio, 300 m alt., 27 Enero 1950, Schwarz 9374 (LIL), 9387 (LIL), Estancia Pamelo 14 Febr. 1950, 9708 (LIL) and San Lorenzo, 20 Febr. 1950, Schwarz 9787 (LIL). ENTRE RÍOS: *Uruguay*: Concepción, Julio 1917, Báez 144 (BA). CATAMARCA: *Ambato*: Potrero, 28 Junio 1909, Castillón 1838 (SI). *Andalgalá*: Andalgalá, 19 Sept. 1915, Jörgensen 990 (LIL). *Belén*: en el altivalle de las Granalillas cerca de Yacutula, Febr. 1872, Lorentz s.n. (CORD); Hualfín, Aguada de S. Dionisio, Enero 1897, Spegazzini 1379 (LP). SAN JUAN: en las cercanías de la Estancia Experimental, 3 Febr. 1921, Hosseus 2089 (CORD). *Poci-*

to: Pedernal, alt. 800 m, Nov. 1941, Rodrigo 3006 (LP). MENDOZA: *La Paz*: Entre Villa de La Paz y Desaguadero, 24 Agosto 1944, Ruiz 9376 (LIL, Ruiz L.). *Las Heras*: Cerro La Gloria, 900 m alt., 23 Dic. 1949, Barkley 19Ar873 (LIL). *San Rafael*: Ranquileo, 27 Enero 1941, Castellanos 322 (LIL). SANTIAGO DEL ESTERO: Sol de Julio, 24 March 1943, Bartlett 19788 (UC); 1943, Tortorelli II (BAB); *Capital*: Santiago del Estero, 1910, Spegazzini 1346 (LP). *Choya*: Puesto de Beltrán a Laprida, 10 Junio 1943, Bartlett 20440 (atypical) (SI, UC); *Copo*: El Caburé, 14 Febr. 1947, Malvárez 701 (LIL). *Matará*: 24 Enero 1910, Venturi 423 (BAF, LIL, NY). *Moreno*: Tintina, 8 Marzo 1917, Hau-man s. n. (BA). *Robles*: Robles, 28 Junio 1942, Argañaraz 391 (LIL). CÓRDOBA: 1918, Bruch 7 (LP); La Reducción, 26 Dic. 1935, Burkart 7302 (SI); San Antonio de Arredondo, Oct. 1942, Gautier 47 (BAB). *Calamuchita*: V. Reartes, 1 Mayo 1917, Castellanos 277 (SI) and Valle de los Reartes, 18 Dic. 1919, s. n. (LIL). *Capital*: en los altos de Córdoba, Agosto 1902, Kurtz 12134 (CORD); en el campo cerca de Córdoba, Die.-Junio 1870, Lorentz s. n. (CORD), Dic.-Enero 1870, 266 (CORD type-*Duvava fasciculata* Gr.), Estancia Germania, 1874, s. n. (G), Estancia Germania, June-Dic. 1874, s. n. (G) and Lorentz 4 (G); alrededores de Córdoba, Die. 1902-Marzo 1903, Spegazzini 1324 (LP), Nov. 1902-Marzo 1903, 1326 (LP) and 22 Abril 1875, Spegazzini 1384 (LP); Puesto del Paraíso, 21 Mayo 1896, Stuckert 31e pr. p (CORD) and 31 (CORD), Quinta, 8 Nov. 1896, 642 (CORD); 26 Julio 1898, 4538 1/2 pr. p. (CORD), 30 julio 1898, 4543a (CORD), Altos Sud, 21 Agosto 1898, 4582 (CORD), sobre el Río 1º, 14 Nov. 1899, 7589 (CORD), and Córdoba, 5 Marzo 1900, Stuckert 8787 (CORD). *Colón*: Unquillo, 1926, Bruch s. n. (LP) and 1926, 2935 (LP, NY); Salsipuedes, Marzo 1938, Dawson 152 (LP); Salsipuedes, 7 Febr. 1939, Dawson 57 (LP); en el valle de Río 1º arriba de Las Caleras, 24-25 Sept. 1874, Hieronymus 178 (CORD), camino a Río Ceballos, Oct. 1875, 235 (CORD), and Chacra de la Merced, Oct. 1881, Hieronymus s. n. (CORD, G); Alrededores del Lago San Roque, 9 Sept. 1945, Hunziker 6076 (CORD); Chacra de la Merced, Die. 1884, Kurtz s. n. (CORD) and entre el Dique y la Granja, 8 Nov. 1886, 4383 (CORD); Villa Allende, Mayo 1939, Lahitte s. n. (BAB) and Junio 1939, s. n. (BAB); Guiñazú, 25 Dic. 1947, Meyer 13207 (LIL); Unquillo, 5 Febr. 1950, Scolnik, Araque & Barkley 20Cb010 (LIL); Juárez Celman, 2 Oct. 1898, Stuckert 4650 (CORD). *Cruz del Eje*: Río Pinto-La Puerta, 30 Enero 1885, Kurtz 285 (CORD). *Ischilin*: Avellaneda, 27 Dic. 1947, Meyer 13180 (LIL). *Punilla*: La Cumbre, 10 Febr. 1950, Cuezzo & Balegno 2128 (LIL); El Durazno,

1200 m alt., 17 Dic. 1949, Meyer & Sleumer 15704 (LIL); Molinari, 800 m alt., 1 Febr. 1936, Rodrigo 427 (LP). *Río 1º*: Chacra de la Merced, Marzo 1905, Bodenbender s. n. (BAF); Arroyo de la Parra y los Molles, 25 Febr. 1887, Kurtz 4454bis (CORD), Quinta Soriano al N. del Bajo Grande, 17-31 Enero 1912, 16141 (CORD), Quinta Soriano al N. del Bajo Grande, 12-13 Febr. 1912, 16144 (CORD), Quinta Soriano al N. de Bajo Grande, Enero 1912, 16144b (CORD), Quinta Soriano, al N. de Bajo Grande, 9-11 Marzo 1912, 16208 (CORD), and Quinta Soriano, al N. de Bajo Grande, 21 Feb. 1912, Kurtz 16120 (CORD); Marzo-Abril 1890, Stuckert 9094 (CORD), Estancia San Teodoro, 25 Abril 1896, 31 (G), Estancia San Teodoro, 26 Abril 1901, 9851 (G), Estancia San Teodoro, Die. 1900, 9954 (CORD, LIL), Estancia San Teodoro, 31 Abril 1901, 10098 (G), Estancia San Teodoro, 18 Agosto 1902, 11843 (CORD), Estancia San Teodoro, 26 Abril 1901, 9851b (LIL) and Estancia San Teodoro, Oct. 1903, Stuckert 13587 (CORD); Nov. 1888, Spegazzini 1381 (LP). *Río Seco*: Villa de María, 18 Dic. 1947, Balegno 1393 (LIL); Gutenberg, 24 Marzo 1943, Bartlett 19800 (SI, UC). *San Alberto*: San Vicente, Julio 1874, Hieronymus 32 (CORD); Las Rabonas, Agosto 1942, Hunziker 3336 (CORD); San Vicente, Nov. 1899, Stuckert 7589 (G); Monte a San José, 8 Julio 1943, Bartlett 20599 (SI, UC) and 20600 (UC); San Javier, 500 a 900 m, 15 Dic. 1927, Castellano 3 (BA, LP); La Barranca, 14 Enero 1939, Castellanos s. n. (BA), La Barranca, 6 Febr. 1939, 31111 [atypical] (LIL) and s. n. (BA). *San Justo*: San Francisco, Sept. 1934, Ragonese 60 (BA). *Santa María*: Malagüeño, 12 Agosto 1949, Fuchs 17099 (SI); Malagüeño, 12 Oct. 1949, Hunziker 7682 (CORD), 7 Oct. 1949, 7716 (CORD) and Hunziker 7717 (CORD); 17 Oct., Kurtz 455bis (CORD); Anisacate, Junio 1939, Gollan 23 (LIL); Anisacate, Junio 1939, López 8 (LIL); Anisacate, Junio 1939, Oesterheld 7 (LIL); Malagüeño, 7 Febr. 1950, Scolnik, Araque & Barkley 20Cb040 (LIL). *Sobremonte*: Chañar, Oct. 1899, Domínguez 59 (BAF). *Totoral*: Ascochinga, 5 Nov. 1935, Giardelli 112 (SI) and 30 Oct. 1935, 78 (SI); Totoral, 3 Oct. 1899, Stuckert 7371 (CORD). *Tulumba*: Dean Funes, 24 Julio 1946, Balegno 1181 (LIL), Tulumba, 23 Dic. 1947, 1537 (LIL), 1539 (LIL) and Balegno 1552 (LIL). *San Luis*: Pozo del Ñato, 18 Dic. 1925, Castellanos s. n. (BA); Suyuque, Dic. 1933, Vignati 294 (LP). *Capital*: Alto Pencoso, Feb. 1914, Bruch & Carette s. n. (LP, NY). *General Belgrano*: Caleras del Gigante, 14 Nov. 1926, Castellanos s. n. (BA). *SANTA FE*: *General Obligado*: Tartagal, D'Aununcio 15 (BAB); camino de Reconquista a Nicanor Molinas, Enero-Febr. 1936, Job 881 (LP, S) and Estancia Bonazzola, Enero-Febr. 1936, 1250 (LP, NY); *Colonia*

Reconquista, Julio 1900, Kermes 400 (BAB) and 416 (BAB, LP); Intiyaco, 16 Nov. 1938, Ragonese 2915 (LP), entre Intiyaco y la Estancia de Arronga, 16 Nov. 1938, 2916 (LP), entre Villa Ana y Cafiada Ombú, 10 Nov. 1938, 2919 (LP), entre Villa Guillermina y Km 57, 14 Nov. 1938, 2920 (LP) and entre Villa Ana y Ocampo, 10 Nov. 1938, Ragonese 2922 (LP); Colonia Santa Fe, Junio 1900, Spegazzini 1363 (LP); Ocampo, 23 Febr. 1904, Venturi 153 (BA, BAB, LIL, NY, SI, SP). *9 de Julio*: entre el Cuadrado y la Simona, 16 Sept. 1936, Ragonese 2393 (LP) and entre Tosato y Mont Efiore, 16 Dic. 1937, 3042 (LP). *Rosario*: arroyo Saladillo, Enero-Febr. 1936, Job 581 (LP). *San Cristóbal*: Río Salado, 10 Agosto 1936, Cabrera 3735 (LP); entre San Cristóbal y Huanqueros, 14 Dic. 1937, Ragonese 3109 (LP). *Vera*: entre Vera y Margarita, 19 Nov. 1938, Ragonese 2913 (LP). *BUENOS AIRES*: Barrancas al Sud, 2 Nov. 1902, Venturi 246 (BAB). *Leventué*: Mayo 1939, Fortuna 28 (BA) and 132 (BA). *Maracó*: General Pico, 10 Nov. 1939, Burkart 9847 (SI). *Rancul*: Colonia Lobocó, 8 Febr. 1944, Fortuna s.n. (LIL); Estancia El Bosque, 17 Sept. 1916, Rodríguez s.n. (NY) and 6 (SI).

5a. *Schinus fasciculatus* var. *arenicola* (Haum.) Barkl. nov. comb.

Schinus polygamus f. *arenicola* Cabr. Rev. Mus. La Plata ser. 2 : 29. 2938.
Duvaava dependens subsp. *subintegra* f. *arenicola* Hauman, Anal. Mus. Nac. Hist. Nat. Bs. Aires 34 : 402. 1913.
Schinus dependens var. *subintegra* Engler, Fl. Bras. 12³ : 337. 1876, pr. p.
Duvaava longifolia Griseb. Symb. 528. 1879.

Shrub of half meter height or often higher, with spinose slender glabrous gray to maroon-gray branches; leaves extremely variable, glabrous, usually thickly membranous but often subcoriaceous, leaves distinctly dimorphic and usually both types present on the same plant, the leaves of new branches are usually short and broad, entire or sinuate, truncate at apex and obtuse at base, the clustered (fascicled) leaves of the older branches usually oblong-lanceolate, or oblong-spatulate but sometimes obovate or even linear-lanceolate, obtuse at apex and base, entire or sinuate-lobate, distinctly petiolate; inflorescence a short congested pseudoraceme .5 cm long (or rarely expanded to 1.5 cm long), microscopically puberulent; bracts sparsely puberulent, triangular, .5-1 mm long, .7-1 mm broad, margin ciliate; pedicels 2-3 mm long sparsely pilose the lower 1/3 to 1/2 of length (below abscission plate), essentially glabrous above; sepals 5, triangular-ovate, glabrous, margin irregular and sparsely ciliate,

1 mm long, .7 mm broad; petals 5, obovate, truncate, glabrous, margin regular, 2.5 mm long, 1 mm broad; stamens 10, in staminate flowers filaments of 5 about 1.5 mm long and of the other five about 1 mm long, anthers .6 mm long, oblong, in pistillate flowers 1/3 as large; disk slightly larger and more cup-shaped in staminate flowers; pistil in pistillate flowers 1.5 mm long, stigmas 3 subequal, .5 mm broad, style .4 mm long, ovary subspherical, 1.1 mm broad, 1 mm long, in staminate flowers styles .2 mm broad, style .2 mm broad, style .3 mm long, ovary .5 mm long; fruit lavender-purple, globular, 4-5 mm in diameter

Type: not designated by Dr. Hauman.

Distribution: Brazil, Paraguay, Uruguay and Argentina.

This variety typically is a shrub with dimorphic leaves which are usually more or less membranaceous, however the leaves vary greatly and in several regions toward the extremes of its range are rather consistently different in texture or shape. It usually is easily distinguishable from the species by its lack of pubescence, however there are some specimens with very little, fine puberulence. In Mendoza it is difficult to separate some specimens from those of *Schinus Johnstonii* Barkl., which species has much larger fruit and usually grows at higher altitudes.

The specimens from coastal Buenos Aires are quite distinctive but specimens such as Fortuna 22b and Kuhneman 2. n. show their position in the variety Castillón, 1834, 14427, and 14429 and Clos 3379 appear much like *Schinus praecoz* and further collections from Catamarca may show that these specimens may better be associated with that species. Bruh & Carette (Febr. 1914), Lorentz 1164, Ruiz 5578 and Schulz 6247 approach *Schinus piliferus* var. *boliviensis* in appearance. Anderson 147 and Pu-jals (26 Sept. 1947) approach *Sch. Engleri* var. *uruguayensis*. Castellanos 620, Castillón 36, Cozzo 11 and Stuckert 4597 approach *Sch. bume-lioides*. Yepes (Marzo 1929) approaches *Sch. Johnstonii*. Thus it becomes clear that this variety stands in the center of the complex of species that constitute the Section *Euduvaava*. Schreiter 6327 has fruit larger than typical. Hauman (Febr. 1912) is a juvenile specimen Castellanos (Dic. 1936) and Fortuna 22, 22a and 22b all have inflorescences longer than typical in the variety. Castellanos (20 Nov. 1927), (22 Nov. 1927), (24 Enero 1928 and 6 Febr. 1930), Fiora (20 Febr. 1927), Hayward (14 Junio 1933) and (24 Junio 1933) and Rodríguez 1221, have leaflets oblong-spatulate, coriaceous and with fruit larger than typical; these may prove to represent a distinct variety or even species, but the material available is not sufficient to warrant this separation at the present time.

Common names: Ayo colorado, Chirimolle, Incienso, Luyu-luyu, Molle, Molle blanco, Molle de beber, molle de curtir, Molle de incienso, Molle morado, Molle pispita, molle pispito.

Specimens examined: BRAZIL: Sello s. n. (S).

URUGUAY: Nov. 1895, Arechavaleta 186; (G); Estancia Germania, Sept. 1873, Berg 62 (CORD); Nov., Berro (8302) (CORD) and Nov., 892 (CORD). CANELONES: Río Santa Lucía, Nov. 1892, Kuntze s. n. (LP); 29 Oct. 1918, Osten 14306 (MVM); Río Santa Lucía, 25 Oct. 1936, Rosengurtt 1249 (LP), A-1429 (LIL) and 1662 (LP); Nov. 1919, Schroeder 15196 pr. p. (MVM). COLONIA: Zona Puerto Franco, Oct. 1937, Rosa 1800b (LIL); FLORIDA: Río Yi cerca del Arroyo Timote, 2 Nov. 1946, Castellanos 15877 (LIL). MONTEVIDEO: Anderson 157 (G); Dic. 1882 Spegazzini 1387 (LP). PAYSANDÚ: As Saira, 1 Febr. 1948, Castellanos 15881 (LIL). RIVERA: near Rivera, 7 Dic. 1943, Bartlett 21093 (UC).

PARAGUAY: Fiebrig 10225a (BAF); Monteagudo, 24 Marzo 1885, Kurtz 1777 (CORD); Puerto Yataybá, 14-15 Sept. 1928, Ragonese s. n. (BA); San Salvador, Marzo 1917, Rojas 2852a (LIL, LP), Loma Pará, Oct. 1917, 2852b (BAF, LIL, LP) and Parque Trinidad, Oct. 1940, Rojas 8853 (LP).

ARGENTINA: JUJUY: *Humahuaca*: Humahuaca, 20 Febr. 1927, Fiora s. n. (BA); 2980 m alt., 14 Oct. 1949, Vervoort 500 (LIL). *Tilcara*: Alfarcito, 2650 m alt., Enero 1926, Zelada 84 (LIL). *Tumbaya*: El Volcán, 2150 m alt., 7 Dic. 1918, Castellanos 6490 (LIL); El Volcán, 12-13 Mayo 1873, Lorentz & Hieronymus 756 (CORD). SALTA: Río Salta, 1 Junio 1945, Schulz 281 (LIL); Cuesta del Arca-Trancas, Enero 1897, Spegazzini 1393 (LP). *Anta*: Viejo Pozo a J. V. González, 13 Julio 1933, Bertuguray 219 (BAB). *Cafayate*: Cafayate, 18 Marzo 1936, Cabrera 3772 (NY); Sierra de los Quilmes, 26 Enero 1943, Castellanos s. n. (BA). *Campo Santo*: entre Palomitas y Cocochuenzada, ruta 34, 500 m alt., 18 Junio 1949, Hueck 133 (LIL). *Chicoana*: Guiaralmasi, 1800 m alt., 29 Agosto 1949, Hueck 233 (LIL). *Orán*: Agosto 1873, Lorentz & Hieronymus s. n. (S). *Rosario de la Frontera*: 900 m alt., 10 Agosto 1929, Venturi 9331 (GH). TUCUMÁN: *Burruyacu*: 15 Dic. 1899, Stuckert 7980 (G); Cadillal, 600 m. alt., 11 Junio 1922, Schreiter 88 (LIL). *Capital*: 26 Julio 1910, Stuckert 21867 (CORD) and 30 Nov. 1899, 7844 (CORD). *Leales*: Las Salinas, 270 m alt., 1 Junio 1913, Monetti 17848 (NY) and 14791 (LIL, NY); Cachi Yaco, 400 m alt., 18 Junio 1950, Sleumer 725 (LIL). *Tafí*: El Molle, 23 Dic. 1913, Castillón 3197 (16170) (LIL); El Molle, 29 Enero 1935, Castellanos s. n. (BA); El Molle, 19 Nov. 1943,

Descole 1405 (LIL); Cumbres Calchaquíes de la Cieneguita, 2100 m alt., 31 Die. 1913, Rodríguez 1221 (BA, BAB, SI). *Trancas*: Vipos, 700 m alt., 30 Julio 1925, Schreiter 4036 (LIL), Tapia, 670 m alt., 9 Julio 1921, Schreiter s. n. (LIL) and 2368a (LIL); Tapia a Vipos, 700 m alt., 5 Agosto 1923, Venturi 2040 (LIL). FORMOSA: Siete Palmas, Die. 1940, Rojas 9013 (LP). CHACO: Barranqueras, 4 Nov. 1913, Muñoz, Acevedo & Curran 15 (LIL). *Resistencia*: Meyer 475 (SI). *Patenaga*: Enrique Urien, 2 Oct. 1945, Schulz 757 (LIL). CORRIENTES: *Empedrado*: Antonio González, 6 Marzo 1950, Schwarz 10035 (LIL). ENTRE RÍOS: 9 Febr. 1878, Lorentz 1606 (BAF) and Colonia Elernanelarias, 12 Febr. 1878, 1508 (BAF). *Colón*: Calera Barquén, Mayo 1927, Pozzi s. n. (BA) and 9 (BA). *Concordia*: Puerto Yeruá, 20 Die. 1923-5 Enero 1924, Pennington s. n. (BA). *Gualeguay*: Gualeguaychú, 16 Nov. 1946, Meyer 10270 (LIL). *Paraná*: 23 Junio 1919, Naboulet s. n. (BA); Cercanías de Paraná, 1891-1892, Anetto 7849 (CORD). *Uruguay*: arroyo Arrebata Capa, 28 Enero 1931, Castellanos s. n. (BA); Concepción del Uruguay, 1875, Lorentz 167 (CORD), 1875, 180 (CORD), Oct. 1875, s. n. (BAF), Junio 1877, 1042 (CORD, L), Oct. 1877, 1164 (BAF, G), en los montes riberones del Gualeguaychú, Oct. 1877, 1180 (BAF, CORD), Concepción del Uruguay, Nov. 1877, s. n. (CORD), 11 Febr. 1878, 1477 (LP), Oct. 1878, 1660, (BAF, CORD) and Oct. 1877, Lorentz 1764 (CORD). CATAMARCA: 10 Sept. 1903, Baldi s. n. (BAB); Jörgensen 11529 (MVM); Amariha 3 Enero 1872, Lorentz s. n. (CORD); El Vallecoito, 6 Febr. 1930, Castellanos s. n. (BA). *Ambato*: Valle del Rodeo, 27 Sept. 1909, Castillón 1834 (LIL); Nacimientos, 1872, Lorentz s. n. (CORD). *Andagalá*: Cuesta de Choya, Nov. 1872, Schickendantz 45 (CORD, PH). *Capital*: Quebrada del Tala, 6 Sept. 1910, Castillón 36 (SI) 14427 (LIL), 14429 (LIL) and 6 Nov. 1910, Castillón 14429 (NY) (approaching *Schinus piliferus* var. *boliviensis*). *Santa María*: en suelo arenoso cerca del río Santa María, 1800 m alt., 22 Nov. 1949, Araque & Barkley 19Ar290 (LIL); El Cajón, 5 Marzo 1948, Reales 1091 (LIL), La Punta, 25 Abril 1948, 1345 (LIL) and Pafanquillo, 26 Abril 1948, Reales 1396 (LIL). *Tinogasta*: Angostura de Guanchú, 24 Enero 1930, Castellanos s. n. (BA); Agua Negra a la quebrada de los Amancajos, 2400 m alt., 9 Febr. 1930, Schreiter 6326 (LIL) and 6327 (LIL). SANTIAGO DEL ESTERO: *Belgrano*: Bandera, 13 Febr. 1947, Schulz 1308 (LIL). *Copo*: Motoque, 17 Julio 1947, Luna 300 (LIL, BEL). *Moreno*: Weisburd, 23 Sept. 1947, Pujals s. n. (BA) and 26 Sept. 1947, s. n. (BA). *Robles*: Colonia Jaimes, 17 Julio 1948, Luna 1128 (LIL). *Silípica*: San Sebastián, 11 Junio 1944, Gramajo 19 L (L). LA RIOJA: Monogasta, 20 Nov. 1927, Castellanos s. n.

(BA); Cuesta de la Puerta de Piedra de la Sierra Velasco, 8-11 Febr. 1879, Hieronymus & Niederlein 21 (CORD); La Mariposa (Los Rambolones), 2100 m alt., 10-12 Febr. 1906, Kurtz 13345c (CORD) and Agua-Salada, 25 Febr. 1907, 14464 (CORD). *Capital*: Ischialasta-Huaco al pie del Salto, 18-20 Enero 1907, Kurtz 14245 (CORD), 20 Enero 1907, 14252 (CORD) and Huaco a Las Juntas, 23 Enero 1907, Kurtz 14257 (CORD). *Chilecito*: 1200 m alt., 15 Junio 1933, Hayward s.n. (BAB); Chilecito, Febr. 1905, Stuckert 15043 (CORD) and 15114 (CORD) and Chilecito, 7 Abril 1906, 15755 (CORD); Chilecito, 5 Enero 1934, de Yepes (BA). *Famatina*: Guanchín, 22 Nov. 1927, Castellanos s.n. (BA) and 24 Enero 1928; s.n. (BA); 1600 m alt., 24 Junio 1933, Hayward s.n. (BAB); más abajo de los Tambillos en el Valle de Vinolina, 17 Febr. 1879, Hieronymus & Niederlein 524 (CORD); Sierra de Famatina, 2000 m alt., 13 Enero 1947, Hunziker 1830 (SI); La Hoyada arriba de Vallecito en la Sierra Famatina, 2500 m alt., 25-27 Enero 1908, Kurtz 15015 (CORD). *Independencia*: Río Miranda, 26 Febr. 1941, Burkart 12450 (SI); Río de Miranda, 25 Febr. 1941, Covas 1208 (LP); Gaganzo, 7-8 Enero 1907, Kurtz 14156 (CORD). *Lavalle*: Cerro Rajado, 1500 m alt., 20 Enero 1906, Kurtz 13227 (CORD) Paso del Medio, 31 Enero 1907, 14287 (CORD) and 14288 (CORD), Las Trancas, 17 Enero 1906, 13183 (CORD) and entre Ciciliano y Puerto Alegre, 18 Enero 1906, Kurtz 13204 (CORD); Villa Ester, 18 Enero 1950, Palacios, Balleño & Cuezzo 1664 (LIL). *Santa Clara*: Paso del Medio, 30 Enero 1907, Kurtz 14282 (CORD). *CÓRDOBA*: *Calamuchita*: Potrero Arroyo Calmayo, 6-11 Nov. 1895, Bodenbender 8778 (CORD) and s.n. (CORD); V. Reartes, 30 Agosto 1918, Castellanos 620 (SI). *Capital*: Barrio Jardín, Nov. 1945, Cozzo 11 (BA); 1874-1875, Hieronymus 158 (CORD); 1 Nov. 1876, s.n. (CORD), Río Primero, 30 Agosto 1877, 591 (CORD) and en las cercanías de la ciudad, 30 Agosto 1877, Hieronymus s.n. (CORD, NY); Nov. 1890, Kuntze s.n. (NY); cerca del Observatorio, 26 Sept. 1889, Kurtz 466 (CORD); 28 Julio 1939, Maldonado 86 (LP, NY); Puesto del Paraíso, 1895, Stuckert 31b (CORD), Puesto del Paraíso, 21 Mayo 1896, 31c (CORD), Puesto del Paraíso, 4 Enero 1897, 1244 (CORD); Puesto del Paraíso, 18 Agosto 1897, 3156 (CORD), Altos Sud, 30 Sept. 1897, 3250 (CORD), Puesto del Paraíso, 17 Oct. 1897, 3293 (LIL), Quinta, 26 Julio 1898, 4538 1/2 pr. p. (CORD, LIL), Altos Sud, 21 Agosto 1898, 4582 (LIL), Altos Norte, 16 Nov. 1898, 4607 (LIL); Cerro de las Rosas, 13 Nov. 1898, 4962 (CORD), Quinta General Paz, 17 Enero 1897, 1523 (CORD), Quinta, 20 Febr. 1900, 8597 (CORD), 27 Oct. 1900, 9578 (CORD) and 26 Oct. 1901, Stucker 10193 (CORD). Co-

lón: Chacra de la Merced, 19 Junio 1893, Berndt 8148a (CORD); Chacra de la Merced, Oct. 1871, Hieronymus s.n. (NY); Chacra de la Merced, 19 Junio 1893, Kurtz 81489 (CORD) and 24 Dic. 1885, 3180 (CORD); Salsipuedes, Junio 1939, Lahitte s.n. (BAB); Jesús María, La Toma, 24 Dic. 1947, Meyer 13156 (LIL); Unquillo (Cabana), 5 Febr 1950, Scolnik, Araque & Barkley 20Cb023 (LIL). *Cruz del Eje*: Cruz del Eje, Junio 1899, Stuckert 7128 (CORD). *General Roca*: de Huinca Renanco a Realicó, 21 Febr. 1938, Clos 6459 (BAB); *Ischilín*: Déan Funes, 15 Dic. 1947, Meyer 13580 (LIL). *Punilla*: Dique San Roque, 15 Enero 1950, Borsini 1850 (LIL); La Cumbre, Enero 1938, de Cantó s.n. (BAB); Copina, 17 Oct. 1946, Hunziker 6956 (LIL); La Falda, Enero 1936, Job 545 (LP, NY); Huerta Grande, 20 Febr. 1947, Rossi 836B (LIL) and 20 Nov. 1947, 836 (LIL); Huerta Grande, 18 Febr. 1897, Stuckert 1879 (CORD) and Tanti, 18 Dic. 1909, 20662 (CORD). *Río 1º*: Obispo Trejo, 13 Dic. 1946, Balleño 1025 (LIL, BEL); Chacra de la Merced, 15 Marzo 1905, Bodenbender s.n. (BAF); entre la Estancia Don Pepe y los Mistoles, 28 Febr. 1887, Kurtz 4474 (CORD), and Chacra de la Merced, 19 Junio 1893, 8148a (BAF); Río IV, 20 Enero 1900, Stuckert 8354 (CORD), Estancia San Teodoro, 26 Abril 1901, 9851A (CORD), Estancia San Teodoro, 20 Abril 1901, 9837 (CORD), Estancia San Teodoro, 10 Febr. 1902, Stuckert 11061 (CORD), Estancia San Teodoro, 27 Sept. 1901, 10162 (CORD), Estancia San Teodoro, 4 Oct. 1902, 11887 (CORD), Estancia San Teodoro, 2 Sept. 1903, 13364 (CORD, LIL), Estancia San Teodoro, 6 Junio 1905, 14955 (CORD), Estancia San Teodoro, Julio 1907, 17803 (CORD) and Estancia San Teodoro, Enero 1911, Stuckert 22128 (CORD). *San Alberto*: La Viña, 9 July 1943, Bartlett 20614 (UC), Sierra Achala, 11 Nov. 1878, Hieronymus s.n. (NY). *San Javier*: San Javier, 14 Enero 1939, Castellanos 31112 (LIL). *Santa María*: Despeñaderos, 3 Nov. 1949, Krapovickas 6513 (LIL); Alta Gracia, 18 Oct. 1883, Galander s.n. (NY). *Totoral*: Ascochinga, 13 Sept. 1898, Stuckert 4597 (CORD, LIL). *Tulumba*: 21-24 Agosto 1924, Domínguez (BAF) SAN LUIS: 1913, Montero s.n. (LP); alto de las Farrillas, 7 Marzo 1882, Galander s.n. (CORD). *Ayacucho*: Quebrada del Palmar de San Francisco, 12 Febr. 1925, Castellanos s.n. (BA). *Capital*: Volcán, 28 Febr. 1925, Castellanos s.n. (BA); Acasape, Enero 1934, Vignati 246 (LP). *General Pedernera*: Alto Penceoso, Febr. 1914, Bruch & Carette s.n. (LP). *Junín*: Barranca Colorado, 16 Oct. 1942, Digilio s.n. (LIL); Piedra Blanca, 14 Oct. 1942, Russo 15 (LIL); Entre Merlo y Rincón, Marzo 1929, Yepes s.n. (BA). *SANTA FE*: *General Obligado*: Reconquista, 1900, Kermés 407 (BAB). *Las Colonias*: Río Salado entre

Santa Fe y Rafaela, 10 Agosto 1936, Cabrera 3735 (NY); 9 de Julio: Santa Margarita, 10 Oct. 1943, Castellanos s. n. (LIL). Rosario: Barranca de Rosario, Julio 1917, Bruch (BA); Barrancas de Rosario, 4-7 Oct. 1926, Castellanos s. n. (BA). San Justo: entre Videla y el Salado, 23 Enero 1937, Castellanos s. n. (BA). BUENOS AIRES: Monte Hermoso, 1916, Carette s. n. (LP). Bolívar: 28 Dic. 1927, Geráldez 85 (BAB). Campana: 28 Oct. 1945, Hunziker 1060 (LIL). Capital Federal: 21 Dic. 1875, Berg 215 (CORD, LP); Barrancas al Sud, 2 Nov. 1902, Venturi 246 (atypical) (BAF, CORD, SI). General Uriburu: 26 Enero 1947, Krapovickas 3283 (LIL). La Plata: Los Talas prope La Plata, 11 Nov. 1928, Cabrera 507 (Atypical) (LP, SP), Punta Lara, 25 Oct. 1931, 1815 (atypical) (LP), La Plata, 16 Oct. 1932, 2365 (Atypical) (LP) and Isla Martín García, Oct. 1934, Cabrera 2864 (Atypical) (LP); Martín García, 26 Oct. 1947, Castellanos s. n. pr. p. (Atypical) (BAFacC); Martín García, 31 Oct. 1920, Clos 390 (BAB) Punta Lara, 22 Mayo 1941, Digilio (Atypical) 63 (LIL); Punta Lara, 24 Oct. 1937, Holmberg 88 (Atypical) (LIL); Punta Lara, 15 Febr. 1925, Molfino & Clos 70 (Atypical) (BAB) and La Plata, 4 Marzo 1929, s. n. (BAB); Martín García, Abril 1935, Pastore 262 (Atypical) (LP); Punta Lara, 29 Oct. 1946, Pérez s. n. (BA); Tala, Julio 1901, Spegazzini 1388 (LP) and Isla Martín García, 20 Agosto 1907, s. n. (BAB). Magdalena: Monte Veloz, 12 Nov. 1931, Cabrera 1883 (atypical) (LP). San Fernando: San Fernando, Enero 1902, Pennington s. n. (CORD). San Isidro: 16 Oct. 1924, Clos 1276 (atypical) (BAB); Sept. 1935, Molfino s. n. (BAF); 19 Oct. 1928, Pérez s. n. (BA). Tornquist: Arroyo de la Ventana, 7 Febr. 1947, Rossi & Bachmann 411 (LIL); 26 Nov. 1947, Borgman s. n. (LIL); Sierra de la Ventana, 6 Nov. 1938, Cabrera 4671 (LP); Sierra Ventana, Dic. 1936, Castellanos s. n. (BA); Sierra de la Ventana, 6 Marzo 1940, Kühnemann s. n. (BA) and 358 (BA). Vicente López: Vicente López, 24 Oct. 1920, E. C. Clos s. n. (BAB). Villarino: road to Bahía Blanca 60 Kms. west of Río Colorado, 50 m alt., 16 Dic. 1938, Eyerdam, Beetle & Grondona 23449 (G). LA PAMPA: Laguna Verónica, 18 Abril 1943, Bartlett 19992 (UC); Aelia, Febr. 1931, Marticelli H-65 (SI); Cerro de los Viejos, 25 Marzo 1928, Clos 3332 (BAB). Caleu-Caleu: a orillas del Río Colorado, 28 Marzo 1928, Clos 3379 (BAB). Conhelo: alrededores de Conhelo, 21-29 Dic. 1933, Pereyra s. n. (BA). Hucal: Estancia La Rosada, 50 m alt., 10-13 Enero 1944, Hunziker 4245 (CORD). Leventue: Telén, 16 Marzo 1938, Cabrera 4367 (LP); Loventuel, Mayo 1939, Fortuna 22 (BA), 22a (BA) and 22b (BA). Maracó: General Pico, 7 Febr. 1939, Williamson 3372 (BAB). Rancul: Estancia El Bosque, 17

Sept. 1916, Rodríguez s. n. (NY) and 3 (SI). Toay: Toay, 190 m alt., 6 Enero 1944, Hunziker 4091 (CORD) and 4352 (CORD); Santa Rosa de Toay, 28 Marzo 1910, Venturi 471 (LIL, NY). Utracán: General Acha, 200 m alt., 10 Enero 1944, Hunziker 4111 (CORD). SAN JUAN: Cordillera del Espinazito, 5 Febr. 1897, Kurtz 9535 (CORD). Calingasta: Barreal, Julio 1947, Stipanicic s. n. (BA). Jachal: San Roque a Fuerte, 1200 m alt., 12 Marzo 1937, Spegazzini 349 (atypical) (BAB). Ullún: Vega en la Punta de la Sierra entre Yaguel y las Cortaderas, 28 Febr. 1879 Hieronymus & Niederlein 337 (CORD); en el lindo de los Cerros Colorados, 21 Febr. 1921, Hosseus 2318 (CORD), Bajada de Cuesta Vieja, 28 Febr. 1921, 2599a (CORD) and desde Ullún hasta la Angostura, 1800 m alt., 28 Febr. 1921, Hosseus 2519 (CORD). MENDOZA: Capital: 800 m alt., 11 Enero 1950 Carrieri & Barkley 20Mz112 (LIL); Mendoza, Abril 1937, Castellanos s. n. (BAFacC); Mendoza, Junio 1939, Oesterheld s. n. (LIL). Godoy Cruz: Zanjón Frías, 5 Enero 1939, Ruiz 5578 (LIL). Las Heras: Estación La Polvareda, 1850 m alt., 24 Enero 1950, Araque 1329 (LIL); El Challao, 16 Enero 1943, Bartlett 19383 (SI); Villavicencio, 29 Enero 1950, Borsini 1280 (LIL); Canote, 13 Nov. 1944, Covas 3084 (CUYO, LIL) and entre Chacras de Coria y El Perol, 4 Oct. 1942, 50 (CUYO, LIL); Parque Aborigen, 26 Enero 1947, Dawson & Pujals 1396 (BAB) and Campo de las Hermosas, 31 Enero 1947, Dawson & Pujals 1475 (BAB); Villavicencio, 21 Enero 1948, Hunziker 3107 (BAB); parque Aborigen, 1940, Minopio s. n. (LIL); Cruz de Paramillo, 2900 m alt., 24 Enero 1950, Palacios & Barkley 20Mz364 (LIL); Cerro La Gloria, Dic. 1933, Ragonese s. n. (BA); Parque Zoológico, 900 m alt., 19 Dic. 1949, Ruiz, Araque & Barkley 19Ar728 (LIL); prope Zanjón Frías, 7 Enero 1939, Ruiz 5578 (LIL, Ruiz L.); Cerro la Gloria, 900 m alt., 23 Dic. 1949, Sleumer & Araque 873 (LIL). Luján: Crucesita, Dic. 1906, Carette s. n. (BA); Potrero de la Puerta, 1500 m alt., 19 Marzo 1947, García s. n. (LIL). San Carlos: Eugenio Bustos, 6 Febr. 1945, Schulz 6427 (LIL). RÍO NEGRO: Febr. 1912, Hauman s. n. (BA); Rincón del Palo, Enero 1916, Icarl 161 (LP); 8 Junio 1879, Hieronymus & Niederlein s. n. (CORD). SANTA CRUZ: 1000 m alt., Kuntze 92 (NY).

6. *Schinus piliferus* I. M. Johnston, Jour. Arnold Arb. 19: 256. 1928.

Shrub or tree 3-7 m in height; branches densely velvety pilose or rarely short-pilose (*Venturi* 2291, 10261) or even glabrous (*Kuntze*,

Nov. 1892), first brownish later becoming grayish-maroon, branchlets moderately slender, rather abundant, spinescent; leaves glabrous except for a few long hairs on the veins above and below, 25-45 mm long 3-17 mm broad, oblong to spatulate, truncate to obtuse, mucronate, entire or somewhat irregular, the base subcuneate; petiole 2-3 mm long, densely long-to short-pilose; inflorescence 2-4 cm long, with short lateral branches, the flowers not congested, the axis densely (usually long-pilose); bracts deltoid, long-persistent, with long hairs on the back and sparsely ciliate with long simple hairs on the margin; pedicels slender, about 3 mm long, densely long-pilose below the abscission plate with scattered long hairs above; sepals ovate, with a few long hairs, sparsely ciliate on the margin with short simple hairs and small clavate glandular hairs; petals narrowly ovate, truncate, glabrous, about 2 mm long, 1 mm broad; stamens 10; anthers obtuse.

Type: Argentina: Salta: Guachipas: Alemanía 1300 m alt., 27 Nov. 1929, Venturi 9830 in the Gray Herbarium.

Jörgensen 990, Castellanos (25 Enero 1944) and Ragonese 119, closely approach *S. fasciculatus*. Fries 290 approaches *S. polygamus*.

Common names: Molle, Molle blanco, Molle Criollo, Molle de Tucumán, Molle pispito, Moye, Yacuiba.

Distribution: from Bolivia to Córdoba and San Luis, Argentina.

Specimens examined: BOLIVIA: 450 m alt., Nov. 1915, Steinbach 1697 (LIL, NY).

ARGENTINA: JUJUY: Santa Bárbara: 1500 m alt., 3 Julio 1901, Fries 290 (S, US) and 293 (S, US); Sierra de Santa Bárbara, Nov. 1911, Spegazzini 1397 (LP). SALTA: Cerro San Bernardo, 20 Mayo 1934, Ragonese 47 (BA); El Centinela, Nov. 1937, Devoto & Rial 1102 (BABosq), Estación El Rey, Dic. 1938, 1274 (BABosq) and 1283 (BABosq). ANTA: entre Palermo y Anta, Mayo 1934, Ragonese 119 (BA, LP). CAMPO SANTO: Güemes, Dic. 1938, Devoto, Lambois and Rial 699 (BABosq). Candelaria: Sierra de la Candelaria, 800 m alt. 20 Sept. 1929, Venturi 9573 (GH, LP, MO, NY, S, SI). Capital: Horcones, 28 Oct. 1912, Devoto 142 (BAB) and Salta, alt. 1100 m Nov. 1912, 142 (BAB); Salta, 26 Marzo 1942, Zabala s. n. (NAN). GUACHIPAS: Alemania, 300 m alt., 27 Nov. 1929, Venturi 9830 (BM, GH-type, K, MO). ORÁN: Río Yacui, 9 Febr. 1925, Schreiter 3561B (LIL); Las Juntas, 15 Dic. 1896, Bruch 2874 (LP); Campo Durand, 23 Enero 1930, Parodi 971 (GH). ROSARIO DE LA FRONTERA: 790 m alt., 7 Febr. 1921, Schreiter 89 (LIL) and 1432 (LIL). VIÑA: Coronel Moldes, 1100 m alt., 31

Enero 1941, Meyer 3878 (LIL). TUCUMÁN: 20 Kms camino Panamericano al norte, 3 Nov. 1947, Dawson & Calastremé 1763 (BAB) and Benjamín Paz, 7 Nov. 1947, 1823 (BAB); Saladillo, 20 Oco. 1907, Dillo 7150 (NY); Alurralde, Enero 1889, Schiekendantz s. n. (LIL). BURRAYACÚ: cerro del Campo, 2000 m alt., Enero 1918, Bailetti 109 (LIL, NY); Cerro de Medina, 1200 m alt., 1 Marzo 1914, Monetti 2038 (NY), Cerro de Medina, 1500 m alt., 22 Marzo 1914, 2192 (NY), and Cerro del Duraznillo, 550 m alt., 20 Febr. 1914, Monetti 1937 (NY); Cañada de la Aguada, sierra de la Ramada, 650 m alt., 11 Oct. 1937, Peirano 10672 (LIL); Río Lora, 27 Oct. 1925, Venturi 485b (BAB). CAPITAL: alrededores de Tucumán, oct. 1902, Baer 4 (BA, BAF, G) and 1902, 68 (SI); Tucumán, 1886-1887, Lillo 61 (CORD), 9 Marzo 1888, 673 (LIL), and Aguadita, 30 Nov. 1907, 7321 (LIL, NY); Tucumán, 14 Enero 1940, Meyer 3225 (BAB, LIL); Tucumán, 450 m alt., 1 Nov. 1906, Monetti 10935 (G); Tucumán, 1 Dic. 1906, Monetti y Lillo s. n. (MVM); Muñecas, 500 m alt., 23 Nov. 1917, Schreiter 260 (LIL); Villa Luján, 460 m alt., Enero 1919, Venturi 198 (BA, LIL, NY, SI, US) and Barranca Colorada, 550 m alt., 27 Abril 1924, 3800 pr. p. (GH, LP, US). CRUZ ALTA: San Vicente, 400 m alt., Mayo 1917, Bailetti 1 (LIL, NY); La Ceferina, 28 Febr. 1941, Ousset 60 (GH, LIL). CHICLIGASTA: Nov. 1895, Spegazzini 1360 (LP); Alpachiri, 4 Enero 1910, Venturi 376 (BAF, LIL). FAMAILLÁ: Río Lules, 450 m alt., 15 Oct. 1923, Schreiter s. n. (LIL, NY); Bella Vista, 450 m alt., 14 Oct. 1923, Venturi 2291 (BA, GH, LIL, LP, US). GRANEROS: 450 m alt., Febr. 1919, 538 (LIL, NY); La Cocha, 440 m alt., Febr. 1919, Bailetti 6 (NY) and La Cocha, Febr. 1942, Gauthier 79 (BAB); La Cocha, 20 Febr. 1949, Meyer 14798 (LIL). LEALES: Dique Río Salí, 1907-1908, Dinelli 716 (BAB); Leales, 12 Febr. 1945, Krapovickas 1728 (BA, LIL); La Florida, 15 Junio 1913, Monetti s. n. (LIL) and Las Herreras, 10 Oct. 1913, 1233 (NY); Las Encrucijadas, 300 m alt., 24 Febr. 1941, Ousset 72 (LIL); Chañar Pozo, 300 m alt., Oct. 1919, Venturi (SGOGunekel). RÍO CHICO: alrededores de Santa Ana, Nov. 1902, Baer 68 (BA, BAF, G, S) and Santa Ana, Nov. 1919, 68 (BAB); La Calera, 500 m alt., 28 Nov. 1913, Monetti 1897 (LIL, NY) and La Colisa, 500 m alt., 30 Dic. 1913, 1878 (LIL, NY); Villa Alberdi, 17 Julio 1942, Varela 18 (LIL). TAFÍ: Alrededores de Tafí, Oct. 1902, Baer 4 (BAB); Raco, 25 Julio 1943, Ruiz s. n. (BAFaC); Siambón, 1500 m alt., 12 Nov. 1929, Venturi s. n. (NY), 10261 (GH, MO, US) and 10262 (S). TRANCAS: Tapia, 700 m alt., 21 Dic. 1911, Rodríguez 208 (BA, LIL, NY, SI); Leocadio Paz, 1000 m alt., 27 Enero 1930, Venturi 10062 (BM, MO, S) and 25 Oct.

1925, 485a (LIL, NY, US). CATAMARCA: Ambato: Balcones, 900 m alt. Febr. 1941, Paredi 14092 (LP). Andalgalá: 9-10 Sept. 1915, Jörgensen 990 (BA, GH, MO, US), Andalgalá 1070 m alt., Oct. 1914, 990 (BAB) and Andalgalá 20 Oct. 1915, 990 (SI) and 10 Sept. 1916, Jörgensen s.n. (SP); Fuerte de Andalgalá, Oct. 1873, Schickendantz 246 (CORD) Nov. 1874, 38 (CORD). Capayán: Los Angeles, río Los Pinos, 8 Enero 1947, Luna 517 (LIL); Huillapima, Dic. 1909, Spegazzini s.n. (BAB). Fray Mam. Esquiuí: Río del Valle, 1 Marzo 1909, Castillón 1336 (NY) and cerca Piedrablanca, Río del Valle, 11 Nov. 1908, 1337 (LIL); Piedra Blanca, 23 Nov. 1910, Spegazzini s.n. (BAB). El Alto: Sierra del Alto, Vilisman, 25 Enero 1944, Castellanos s.n. (BA). SANTIAGO DEL ESTERO: Giménez: El Charco, 300 m alt., 16 Febr. 1930, Venturi 10113 (BM, GH, LIL, MO, S, US). C. Pellegrini: Estancia El Nemate, 500 m alt., 22 Die. 1927, Venturi 5775 (CAS, F, LIL, SI, US). LA RIOJA: San Martín: Quebrada de Portezuelo, 7 Marzo 1944, Hunziker 5118 (CORD, LP). General Belgrano: Quebrada de Olta, Los Talas, 29 Feb. 1940, Castellanos 33735 (LIL). CÓRDOBA: Palacios 4291 (LIL). SAN LUIS: Junín: Arroyo del Tren, Nov. 1910, Gerth s.n. (L).

6a. *Schinus piliferus* var. *Cabrerae* (Barkl.) Barkl. nov. comb.

Schinus Cabrerae Barkley, Brittonia 5: 173. 1944.

Tree to 5 m; branches pilose, becoming glabrate in age, at first brownish later becoming gray; branchlets few, relatively heavy, spinescent; leaves pilose on the veins above and below, sparsely long-pilose between the veins, 18-40 mm long, 4-8 mm broad, spatulate, obtuse at the apex, the margin entire or slightly irregular, somewhat reflexed, the base cuneate; petiole 1-2 mm long, long-pilose; inflorescence about 2.5 cm long, expanded, the flowers not congested, pilose; bracts deltoid-ovate, obtuse, long-persistent, glabrous on the outside with very long simple hairs, ciliate on the margin with long simple hairs; pedicels about 2 mm long, densely very long pilose below the abscission plate, sparsely long-pilose above; sepals deltoid, subacute, with a few very long simple hairs on the outer surface, ciliate on the margin with long simple hairs and a few clavate glandular hairs; petals narrowly ovate, subsessile, 3 mm long 1.2 mm broad, glabrous.

Type: Argentina: Tucumán: Trancas: 10 Dic. 1913, Rodríguez 1167 in the herbarium of the New York, Botanical Garden.

Common names: Molle, Molle Blanco, Molle Colorado, Moye, Moye blanco.

Distribution: from Bolivia to Tucumán and Catamarca in Argentina.

Specimens Examined: BOLIVIA: TARIJA: Ciaza, 20 Marzo 1902, Fries 1428 (S).

ARGENTINA: SALTA: Orán: barranca del Río Caraparí, 14 Febr. 1945, Abbiatti & Claps 328 (LIL); Las Juntas, 15 Die. 1895, Bruch s.n. (NY). TUCUMÁN: Burruyacú: Caña de la Aguada, Sierra de la Rama, 650 m alt., 11 Agosto 1937, Peirano 35170 (GH, NY). Capital: Lillo 276 (LIL) and 25 Oct. 1903, 3246 (LIL); Muñecas, 500 m alt., 23 Nov. 1917, Schreiter 260 (MVM); Barranca Colorada, 550 m alt., 19 Oct. 1924, 3530 (LIL) and Barranca Colorada, 550 m alt., 27 Abril 1924, 3800b (LIL). Leales: Arroyo Mixta, 19 Nov. 1947, Meyer 12781 (LIL); Chañar Rojo, 300 m alt., 1 Oct. 1919, Venturi 485 (BA, GH, LIL, SI, US). Graneros: La Cocha, 440 m alt., Marzo 1919, 240 (LIL). Trancas: Tapia, 700 m alt., 30 Die. 1911, Rodríguez 260 (BA, LIL, NY, SI), Trancas, 700 m alt., 8 Die. 1913, Rodríguez 1167 (SI), Trancas, 700 m alt., 10 Die. 1913, 1167 (NY-type LP), and Trancas, 700 m alt., 15 Die. 1913, Rodríguez 1167 (BA, BAB, LIL). CATAMARCA: El Alto: El Alto, 7 Nov. 1948, Argañaráz 713 (LIL).

6b. *Schinus piliferus* var. *boliviensis* (Barkl.) Barkl. nov. comb.

Schinus fasciculatus var. *boliviensis* Barkley, Brittonia 5: 177. 1944.

Shrub to 3 m tall; branches glabrous or very sparsely puberulent, brown becoming gray in age, moderately slender, abundant, spinescent; leaves thin, glabrous (or very sparsely puberulent becoming glabrate), 11-45 mm long, 4-11 mm broad, oblanceolate to spatulate, subacute to obtuse and mucronate, the margin entire or somewhat irregular, slightly subrevolute, the base cuneate to subcuneate; petiole 1-3 mm long, sparsely puberulent above; inflorescence 7-25 mm long, sometimes congested, many-flowered, the axis very sparsely short-pilose; bracts deltoid, very sparsely pilose on the outer surface, shortly ciliate on the margin; pedicels about 3 mm long, puberulent below the abscission plate with clavate glandular hairs and a few simple hairs, very sparsely so above; sepals deltoid, very sparsely pilose on the outer surface, ciliate on the margin with short simple hairs; petals ovate, truncate, glabrous, about 1.5 mm long; fruit about 5 mm in diameter.

Type: Bolivia, Bolivian plateau, 1891, Bang 981 in the herbarium of the Missouri Botanical Garden.

Common names: Chirimolle, Molle, Molle de incienso.

Hessling & Barkley 19Ar593 shows leaf variation similar to young specimens of *Schinus Engleri*. *Venturi 3800* shows similarity to *Schinus bumeloides*.

Distribution: from Bolivia to La Rioja and Córdoba in Argentina.

Specimens examined: BOLIVIA: 1891, Bang 981 (F, G, GH, MO-type, NY, US). COCHABAMBA: 2570 m alt., Marzo 1939, Cárdenas s. n. (US) and 2527 m alt., 766 (LP); 26 Marzo 1892, Kuntze s. n. (NY). SANTA CRUZ: Samaipata, 1650 m alt., Marzo 1911, Herzog 1754 (L, S); Samaipata, 1300 m alt., 15 Marzo 1920, Steinbach 3737 (LIL) and cerro de alto Mairano, 2300 m alt., 21 Dic. 1921, 6040 (LIL).

ARGENTINA: JUJUY: *Tumbaya*: Estación Volcán, 2100 m alt., 20 Enero 1927, Castillón 316 (LIL). SALTA: Nov. 1892, Kuntze s. n. (G, NY, LP). *Cafayate*: en montaña rocosa y muy seca cerca Cafayate, 1600 m alt., 24 Nov. 1949, Winkler, Araque & Barkley 19Ar369 (LIL); en una planicie de arena semiseca en los alrededores de Cafayate, 1400 m alt., 24 Nov. 1949, Araque & Barkley 19Ar350 (LIL); Cafayate, 18 Agosto 1936, Cabrera 3772 (LP). *Capital*: en suelos arcillosos y poco húmedos cerca de Salta, 1200 m. alt., 26 Nov. 1949, Araque & Barkley 19Ar396 (LIL). *Rosario de Lerma*: El Eucón a Laderas, 9. Febr. 1945, Abbiati & Claps 53 (LIL, LP). *Viña*: Coronel Moldes, 1200 m alt., 30 Enero 1941, Hunziker 1008 (CORD); Coronel Moldes, Abril 1934, Lahitte s. n. (BAB); La Viña 20 Oct. 1948, Killip 395-65 (US). TUCUMÁN: El Bosque, 1 Enero 1899, Lillo 2183 (LIL). *Burruyacú*: Vaca-huasi alto de las Salinas, 14 Abril 1900, Lillo 2470 (LIL); cerro del Duraznillo, 550 m alt., 20 Febrero 1949, Monetti 1978 (LIL) and cerro Medina, 1500 m alt., 22 Marzo 1914, 2192 (LIL). *Capital*: Barranca Colorada, 17 Marzo 1925, Venturi 3800 pr.p. (LP, SI) and 27 Abril 1925, 3800a (LIL). *Cruz Alta*: Barranca de la Toma del Río Salí, 450 m alt., 1 Nov. 1921, Schreiter s. n. (LIL). *Leales*: Las Herreras, 400 m alt., 10 Oct. 1913, Monetti 1223 (LIL). *Tafí*: Siambón, 1500 m alt., 12 Nov. 1929, Venturi 10261 (BM). *Trancas*: Vipos, 24 Sept. 1905, Lillo 4502 (LIL) and Alurralde, 8 Dic. 1907, 7218 (LIL, NY); Alurralde, Enero 1889, Schickendantz s. n. (NY); Tapia, 682 m alt., 9 Julio 1921, Schreiter 2368d (LIL); Tapia, 700 m alt., 25 Oct. 1925, Venturi 485a (LP). CATAMARCA: Enero-Febr. 1910, Spegazzini s. n. (BAB). Am-

bato: 7 Kms de El Rodeo, 1800 m alt., 12 Dic. 1949, Araque 600 (LIL) and 595 (LIL) and Barkley 19Ar595 (LIL) and 19Ar600 (LIL); Valle del Rodeo, 27 Sep. 1909, Castillón 1834 (NY) and quebrada del Tala, Oct. 1910, 14426 (LIL, NY); El Rodeo, Dic. 1938, Devoto & Rial 2148 (BABosq); El Rodeo, 22 Nov. 1946, Dimitri & Piccinini 185 (BAB, LIL); alrededores del Rodeo, 1700 m alt., 12 Dic. 1949, Hessling & Barkley 19Ar593 (LIL). *Capayán*: Villa Santo Domingo a Los Angeles, 11 Enero 1947, Luna 870 (LIL). *Capital*: Gruta, Dic. 1938, Devoto & Rial 2159 (BABosq). *Santa María*: Palo Seco, 17 Febr. 1948, Reales 934 (LIL). SANTIAGO DEL ESTERO: La Banda, 25 Dic. 1946, O'Donell 4268 (LIL, U). LA RIOJA: Spegazzini 1358 (LP). *Capital*: camino a Huaco de La Rioja, 4 Marzo 1941, Burkart 12451 (SI). *San Martín*: Quebrada de Olta, Los Talas, 29 Febr. 1940, Castellanos s. n. (BA). CÓRDOBA: *Colón*: Río Carape, 729 m. alt., 23 Dic. 1947, Meyer 13649 (LIL).

7. *Schinus longifolius* (Lindl.) Speg. in Speg. & Girola, Cat. Descr. Maderas. (An. Soc. Rural Argent. 1910) 413. 1910.

Duvaua longifolia Lindl. Edward's Bot. Reg. 2 16 : pl. 59. 1843.

Schinus dependens var. *subintegra* Engl. in Mart. Fl. Bras. 12 2 : 387, pl. 81 f. 1. 1887.

Duvaua dependens var. *subintegra* Arechaval. Anal. Mus. Nac. Montev. 3 : 300. as to synonymy. 1901.

Shrub or small tree; the youngest branches tan, later light gray, and eventually dark gray, branches moderately slender, moderately few, spinescent, glabrous; leaves at first with a few long hairs but soon glabrate, spatulate, 2.5- 5 cm long, 5-12 mm broad, thinnish, mostly obtuse at the apex, rarely subacute, the margin entire or irregularly subentire, the base narrowly cuneate, the petiole slender, 2-5 mm long, glabrous; inflorescence a pseudoraceme or sometimes branched, about 1 cm long, congested, many-flowered, the axis glabrous or rarely with a few scattered hairs; bracts deltoid or ovate, subacute, glabrous or rarely very sparsely pilose on the dorsal surface, sparsely ciliate with simple hairs on the margin, at length deciduous; pedicels about 4 mm long, slender, glabrous or rarely sparsely short-pilose below the abscission plate; sepals deltoid-ovate, rounded at the apex, glabrous on the outer surface, densely ciliate with simple hairs on the margin; petals narrowly ovate, 2 mm long, 1 mm broad, with a few hairs on the dorsal

surface or glabrous; anthers ovate; fruit about 6 mm in diameter, lavender.

Type: pl. 59 in Edward's Bot. Reg. ser. 2. 16. 1843; *Bornmüller* 504 in Arnold Arboretum Herbarium from Río Grande do Sul, Brazil.

Distribution: Southern Brazil, Paraguay, Uruguay, and Argentina (Misiones, Corrientes, Chaco, Entre Ríos).

This is a distinctive species, most similar to *S. bumelioides*, with which the present author confused some specimens in his previous paper. Lindley's specimen has not been seen, and while his drawing shows a pilose stem the present author believes that there can be no doubt that this is the species he was depicting in his description and drawing, the other factors fitting the present species perfectly. *Alfred Bornmüller* 504 is taken as typical of the species.

Common names: Citriora, Molle.

Specimens examined: BRAZIL: Sello 3617 (LISU). PARANÁ: 5 Junio 1911, Dusén 11855 (S). RÍO GRANDE DO SUL: New Würbtenberg, 450 m alt., 2 Marzo 1905, Bornmüller 504 (GH); Cerro Tobatinga, Santa Ana do Livramento, 24 Febr. 1947, Castellanos s. n. (LIL); São Leopoldo, Dutra 209 (R); Gaudichaud & St. Hilaire 1756 (BM); Porto Alegre, Gloria, 9 Dic. 1901, Malme 141a (S) and Cachoeira, 30 Enero 1902, 1287 (S); Uruguayan, 24 Enero 1948, Palacios & Cuezzo 209 (LIL), Enerusilhada Do Sul, 11 Nov. 1948, 1268 (LIL), Caçapava do Sul, 19 Febr. 1948, 1424 (LIL), São Sepé, 22 Feb. 1948, 1551 (LIL), Santa María, 29 Feb. 1948, 1619 (LIL) and Alegrete-esta Río Ibirá Puitán, 13 Mayo 1948, Palacios & Cuezzo 1795 (LIL, BEL); Quarí, Estancia do Jaran, 26 Dic. 1944-14 Enero 1945, Rambo 26302 (LIL), Spueaia, 9 Marzo 1949, 40455 (LIL), Vila Manresa prope P. Alegre, 40386 (LIL), Morro do Osso prope P. Alegre, 13 Mayo 1949, 41510 (LIL, US), Esteio, 23 Marzo 1949, 40610 (US) and 18 Mayo 1949, 41622 (LIL), Lagoa La Pinguela prope Osorio, 27 Marzo 1950, 46459 (LIL). Viamão, 10 Abril 1950, 46681 (LIL, BEL, US), Bocó dos Faria de Osario, 1 Mayo 1950, Rambo 46971 (LIL) and Bocó dos Faria de Osario, 8 Abril, Rambo 1950, 47029 (LIL, US); Porto Alegre, Morro da Gloria, 17 Marzo 1933, Rocha s. n. (RB); Ex-colon, Río Picada Enero 1901, Schwarzer s. n. (S); Puerto Alegre, S. Leopoldo, 10 Abril 1946, Weber 33528 (LIL). SANTA CATARINA: Sombrio, Araranguá, 6 Febr. 1946, Rambo 31700; Arar, Sombrio, 12 Abril 1944, Reitz c532 (RB).

URUGUAY: ARTIGAS: 19 Marzo 1948, Palacios & Cuezzo 2016 (LIL); Santa Rosa, 3 Enero 1922, Schröder 16694 (BAF). CERRO LARGO: Río Negro, Palleros, Enero 1941, Gallinal, Aragone, Bergalli, Campal & Rosengurtt PE-4564 (LIL); La Sierra de Ríos, 100-150 m alt., Febr. 1937, Herter 1871 (G, U).

PARAGUAY: Estancia Santa María, Dic. 1898, Anisits 2852 (J); Sierra de Amambay, Pedro Juan Caballero, Dic. 1933, Rojas 6529 (LP).

ARGENTINA: MISIONES: Cainguas: 26 Marzo 1949, Schwarz 7645 (LIL), Capiovixiño, 29 Marzo 1949, 7652 (LIL) and Puerto Tabay, 14 Abril 1950, Schwarz 10427 (LIL); Puerto Rico, 2 Enero 1947, Schwindt 588 (LIL). Candelaria: Loreto, 17 Febr. 1932, Grüner 225 (LP, NY); Bonpland, Marzo 1910, Jörgensen 157 (BAB); Bonpland, Febr. 1902, Molfino s. n. (BAF); Gabebiry, 26 Abril 1945, Montes 873 (LIL), Loreto, 218 m alt., 14 Julio 1945, Montes 1002 (LIL), La Pastera, 220 m alt., 7 Junio 1946, 2336 (LIL), Loreto, 1 Abril 1947, s. n. (BA), Loreto, 2 Abril 1947, s. n. (BA), Loreto, 220 m alt., 10 Mayo 1947, s. n. (BAB) and Loreto, 14 Febr. 1948, Montes 54002 (BA); Loreto, 27 Marzo 1910, Rodríguez s. n. (LIL) and 244 (BA, BAB, BAFAcC, LIL, NY, SI), Santa Ana, 7 Enero 1913, 244 (LIL), Santa Ana, 8 Febr. 1913, s. n. (SI), Santa Ana, 12 Febr. 1913, s. n. (LIL) and Santa Ana, 8 Marzo 1913, Rodríguez s. n. (LIL); Santa Ana, 3 Febr. 1930, Rodríguez 51 (BA, BAB, SI); Arroyo Santa Ana, 19 Enero 1945, Schwarz 537 (BAB, LIL, US) and Arroyo Buere Grande, 12 Febr. 1946, 2046 (LIL); Santa Ana, 216 m alt., 10 Abril 1947, Schwindt 196 (LIL). Frontera: B. de Yiegoyen, 800 m alt., 11 Mayo 1950, Schwindt 4150 (LIL). GUARANÍ: Chapá, 28 Junio 1948, Schwindt 676 (LIL). SAN IGNACIO: Arroyo Buere Grande, 500 m alt., Schwarz 2046 (U), Puerto Maní, 30 Marzo 1950, Schwarz 10324 (LIL), Puerto Cazador, 4 Febr. 1946, Schwarz 2017 (LIL) and Santo Pipó, 21 Febr. 1948, Schwarz 5549 (LIL); Santo Pipó, 21 Febr. 1948, Schulz 7208 (LIL). SAN PEDRO: El Aleázar, 208 m alt., 6 Abril 1949, Schwindt 1424 (LIL). CORRIENTES: MERCEDES: Pai-ubre, 10 Febr. 1925, Millán 408 (SI). MONTE CASEROS: Libertad, 22 Febr. 1945, Ibarrola s. n. (LIL). PASO DE LOS LIBRES: Paso Troncón, 26 Marzo 1948, Palacios & Cuezzo 2286 (LIL). ENTRE RÍOS: FEDERACIÓN: Isthilart, 18 Febr. 1945, Schulz 475 (LIL). PARANÁ: cercanías de Paraná, 1891-1892, Annato 7742 (CORD). BUENOS AIRES: CAPITAL: barrancas al sur de Buenos Aires, 2 Nov. 1902, Venturi 246 (LIL).

7a. *Schinus longifolius* (Lindl). Speg. in Speg. & Girola var. *paraguariensis* (Hassler) Barkl. n. comb.

Schinus dependens var. *paraguariensis* Hassler, Rep. Nov. Sp. 12: 379. 1913.
Schinus paraguariensis (Hassler) Barkley, Brittonia 5: 166, 1944.

Branches at first a light tannish-gray, later becoming gray, the branchlets rather abundant, relatively heavy, spinescent, glabrous; leaves glabrous, mostly lanceolate, from broadly lanceolate to narrowly lanceolate, 5-8 cm long, 6-22 mm broad, subcoriaceous, acute at the apex, the margin entire or irregularly subentire, the base narrowly cuneate, the petiole coarse, about 5 mm long, glabrous; inflorescences about 7 mm long, many-flowered, very sparsely short-pilose; bracts deltoid to ovate, subacute, glabrous on the outer surface, ciliate with simple hairs, long-persistent; pedicels about 3 mm long, slender very sparsely short pilose below the abscission plate; sepals deltoid-ovate, rounded at the apex, glabrous on the dorsal surface, sparsely ciliate with simple hairs on the margin; petals lanceolate, truncate, 1 mm long, .5 mm broad, glabrous; anthers ovate; fruit about 5 mm in diameter, glabrous, lavender.

Type: Paraguay: in regione calcarea cursus superioris fluminis Apa, March 1912-1913, Hassler 11069 in Herb. Geneva.

Distribution: known only from the type area.

It differs from *Sch. longifolius* in the texture, shape and size of the leaves, and the branches are more abundant and coarser.

Specimens examined: PARAGUAY: Margarita, Río Apa, Marzo 1912-1913, Hassler 11069 (BAF, G-type, CH, UC); Cerro Torín, Sierra de Amambay, Enero 1921, Rojas 4203 (LP).

8. *Schinus bumelioides* I. M. Johnston, Jour. Arnold Arb. 19: 258. 1938.

Schinus myrtifolius Cabrera in Frenguelli, Inst. Mus. Univ. Nac. La Plata (Obra Cincuentenario) 2: 269. 1937, excl. *Cybianthus myrtifolius* Griseb. in synon.; Barkl. Brittonia 5: 167. 1944.

Schinus Huynigan var. *longifolius* O. Kuntze, Rev. Gen. Pl. 32: 45. 1898.

Shrub or small tree; branches glabrous (or rarely very sparsely pilose) when young, light brown later becoming gray, the branchlets moderately slender, rather abundant, spinescent; leaves thin, glabrous (or rarely with sparse pilosity at first soon becoming glabrate), 18-48 mm long, 6-27 mm broad, oblong (rarely obovate or broadly oblanceolate), truncate (rarely obtuse or subacute) and often emarginate at the apex, the

margin entire or rarely somewhat irregular, the base obtuse or rarely very broadly subcuneate, the petiole slender, 3-7 mm long, glabrous (or very rarely sparsely pilose); inflorescence axis usually about 3 mm long (rarely to 7 mm), congested, many-flowered, the axis glabrous or very sparsely pubescent, with a few minute sessile glandular hairs; bracts deltoid-ovate, mostly subacute, long-persistent, glabrous except ciliate on the margin with simple hairs and a few clavate glandular hairs; pedicels about 3 mm long, slender, sparsely short-pilose below the abscission plate; sepals (narrowly) ovate, obtuse at the apex, glabrous except ciliate with simple hairs on the margin; petals narrowly ovate, 2 mm long, 1 mm broad, somewhat smaller in the pistillate flowers, glabrous; anthers ovate; fruit lavender, about 3 mm in diameter.

Type: Argentina: Tucumán: Trancas: Tapia, 700 m alt., 18 Agosto 1929, Venturi 9422 in the Gray Herbarium.

The proportion of the leaves tends to remain constant; specimens with leaves 45 by 25 mm are less abundant than those with leaves 17 by 8 mm Kurtz 6810 has leaves approaching lanceolate and much more slender branches. The relationship of this species is with *Sch. fasciculatus* var. *arenicola* on one hand and with *Sch. longifolius* on the other.

Common names: Molle, Molle blanco, Molle colorado, Molle de beber, Molle de curtir, Molle de incienso, Molle espinoso, Molle morado, Molle negro, Molle pespito, Molle trepador, Pimiento del diablo.

Distribution in Argentina from Jujuy to Buenos Aires and Mendoza.

Specimens examined: ARGENTINA: JUJUY: near Laguna de la Brea, 20 Julio 1901, Fries 376 (S). Ledesma: sierra de la Calilegua, 700 m alt., 7 Sept. 1927, Venturi 5311 (LIL, SI). San Pedro: Río Lavagin, 809 m alt., 11 Oct. 1938, Eyerdam & Beetle 22523 (G). Santa Bárbara: El Palmar, 8 Julio 1937, Cabrera 4085 (LP); Nov. 1905, Spegazzini 1359 (LP) and Santa Cornelio, Nov. 1911, 1395 (LP). SALTA: Anta: Toloche, 27 Julio 1933, Cabrera 3164 (LP); entre El Piquete y Palermo, Junio 1934, Ragonese 362 (BA, LP) and entre Palermo y Anta, 13275 (LP). Campo Santo: Güemes, 750 m alt., Julio 1913, Jörgensen s.n. (BAB); Güemes, 700 m alt., Lahite s.n. (BAB); Güemes, 700 m alt., 7 Agosto 1941, Zabala 193 (LIL, NY). Candelaria: Agua Caliente, 1000 m alt., 24 Julio 1927, Venturi 5494 (BAB). Capital: en suelos arcillosos y pocos húmedos cerca de Salta, alt. 1200 m 26 Nov. 1949, Araque & Barkley 19Ar395 (LIL); Salta, Nov. 1945, Borsini s.n. (LIL). Guachipas: quebrada del río Alemania, 12 Julio 1936, Cabrera 3733 (LP) and 3735 (NY) and quebrada de las Conchas, 3763 (LP, NY, NY).

*Su de los tipos
(L 45) los sepa
non ovados, pero
no seca
de ovadas*

Metán: entre El Turral y El Galpón, 19 Julio 1949, Hueck s.n. (LIL); Lumbres, Julio 1934, Ragonese 357 (BA, LP). *Orán*: Oct. 1873, Lorentz & Hieronymus 32 (CORD), laguna de San José entre el Callada y las Cenizas, Agosto 1873, 570 (CORD) and San Andrés, 15 Sept. 1873, Lorentz & Hieronymus 447 (CORD); río Yacui, 500 m alt., 9 Febr. 1925, Schreiter 3561 (LIL). *Rosario de la Frontera*: entre Balboa y Recreo, 15 Junio 1933, Cabrera 3156 (LP); Los Baños, 900 m alt., 14 Agosto 1929, Venturi 9330 (S). *Santa Bárbara*: Quebrachal, 20 Julio 1930, Castellanos s.n. (BA); Sierra Santa Bárbara, Schuef 65 (BA). *Viña*: alrededores de Guachipas, Abril 1934, Lahitte (BAB). *TUCUMÁN*: *Capital*: Tucumán, 400 m alt., 22 Agosto 1949, Barkley 19Ar050 (LIL); cerca a Muñecas, Sept. 1905, Castillón s.n. (LIL); 15 Julio 1888, Lillo 831 (LIL); Río Salí, 450 m alt., 24 Agosto 1941, Meyer 4309 (LIL, LP); Los Tucanes de San Felipe, 4 Sept. 1949, Sás 45 (LIL, BEL); Tucumán, 26 Julio 1910, Stuckert 21866 (CORD, LIL); Río Salí, 450 m alt., 15 Agosto 1920, Venturi 882 (BA, BAB, LIL), Barranca Colorada, 500 m alt., 1 Agosto 1927, Venturi 5218 (S) and 1 Agosto 1929, 5281 (BAB) and Oct. 1924, 3530 (BAB, S) and 17 Agosto 1925, Venturi 3530a (BAB, LP). *Leales*: Santa Rosa, 400 m alt., 27 Julio 1901, Monetti 1007 (LIL, NY) and Orán, 400 m alt., 28 Sept. 1913, 1190 (LIL); Chañar Rojo, 300 m alt., Agosto 1919, Venturi 343 (BA, LIL). *Tafí*: Dique la Aguadita cerca de Tafí Viejo, 450 m alt., 29 Junio 1942, Fontenla 21 (LIL); Cadillal, 20 Julio 1905, Lillo 4508 (LIL). *Trancas*: Alurralde, Sept. 1905, Castillón 382a (LIL); Vipos, 800 m alt., 24 Sept. 1905, Lillo 4503 (LIL); Tapia, 22 Oct. 1911, Rodríguez 10 (BA, LIL, NY, SI); Benjamín Paz, 20 Julio 1942, Salcedo 12 (LIL); Tapia, 24 Febr. 1917, Schreiter s.n. (LIL), Tapia a Cadillal, 500 m alt., 30 Agosto 1917, 15096 (MVM), Río Tapia, 500 m alt., Agosto 1918, 101 (LIL, MVM), Vipos, 780 m alt., 11 Sept. 1921, s.n. (LIL), and Trancas, 786 m alt., 19 Agosto 1923, s.n. (LIL, NY); Tapia, 750 m alt., 5 Agosto 1925, Venturi 343b (LIL, LP), Sierra de la Candelaria, 1000 m alt., 1 Agosto 1924, 3485 (BA, LIL, NY, SI), Tapia, 750 m alt., 25 Oct. 1925, Venturi 3893a (LP); Tapia, 700 m alt., 25 Oct. 1925, 3900 (LIL LP) and Tapia, 700 m alt., 18 Agosto 1929, Venturi 9422 (BM, K, LIL, NY, S, SI). *CHACO*: *Río Bermejo*: Puesto Puente Nacional, 23 Julio 1944, Rojas s.n. (LIL) and Orillas montes Mborerí, Río Guaicurú, 17 Julio 1944, s.n. (LIL). *ENTRE RÍOS*: *Paraná*: El Buete cerca de Paraná, 11 Oct. 1937, Frenguelli 22 (LP). *CATAMARCA*: 4 Sept. 1903, Baldi 21 (BAB); Río del Valle, 13 Sept. 1910, Castillón 14431 (LIL); Quebrada del Tala, 21 Nov. 1946, Dimitri & Piecinni 169

(BAB); Junio 1942, Schaefer s.n. (BAB); Enero-Febr. 1910, Spegazzini s.n. (BAB). *Ancasti*: Los Quebrachos, 14 Nov. 1947, Brizuela 1270 (LIL). *Andalgalá*: a orillas del arroyo de Andalgalá, 20 Sept. 1946, Hunziker 6850 (CORD); Andalgalá, 10 Sept. 1916, Jörgensen 990 (MVM); Fuerte de Andalgalá, Nov. 1874, Schickendantz 75 (CORD). *Capital*: 15 Julio 1908, Castillón 1338a (LIL); Díaz 99 (LP); 15 Julio 1908, Lillo 9015 (LIL). *Santa María*: en suelos arenosos y húmedos cerca del río Santa María, 22 Nov. 1949, Araque & Barkley 19Ar277 (LIL); 19 Sept. 1946, Hunziker 6827 (CORD). *Valle Viejo*: 11 Mayo 1944, Varela 103 (LIL). *SANTIAGO DEL ESTERO*: *Capital*: 11 Febr. 1939, Argañaraz 131 (SI); Río Dulce, 25 Nov. 1946, Cuezzo 2274 (LIL); La Dársena, 21 Sept. 1949, Meyer 15208 (LIL). *Copo*: Matoque, 17 Julio 1947, Luna 294 (LIL). *La Banda*: La Banda, 187 m alt., 29 Agosto 1944, Briones 2 (LIL); La Banda a Fernández, Dic. 1940, Devoto & Rial 2280 (BABosq); La Banda, 20 Julio 1944, Meyer 6832 (LIL); 27 Agosto 1945, Peralta 5 (BAB); La Banda, 28 Julio 1943, Schogorreta 22 (LIL). *Guasayán*: Sinchicáña, Dic. 1940, Devoto & Rial 1532 (BABosq). *Pellegrini*: Algarrobal Viejo, 28 Oct. 1947, Luna 318 (LIL). *Río Hondo*: 300 m alt., Termas de Río Hondo, 30 Agosto 1949, Legname, Araque & Barkley 19Ar052 (LIL). *Silípica*: Maongasta, 8 Julio 1942, Argañaráz 392 (LIL). *LA RIOJA*: Cuesta de la Puerta de Piedra de la Sierra Velasco, 8-11 Enero 1879 Hieronymus & Niederlein 19 (CORD); Gaganzo, 7-8 Enero 1907, Kurtz 14158 (CORD). *Chilecito*: Sañogasta, 17 Enero 1950, Palacios, Balegno & Cuezzo 1720 (LIL) and 1728 (LIL). *General Belgrano*: Olta, 700 m alt., 6 Agosto 1944, Gómez 46 (LIL). *Independencia*: 11 Marzo 1933, Lahitte & Castro 118 (BAB). *San Martín*: Ullapes, 1 Marzo 1907, Stuckert 17043 (CORD). *CÓRDOBA*: V. Reartes, 28 Oct. 1918, Castellanos 710 (SI) and La Cochá, 15 Febr. 1926, s.n. (BA). *Capital*: Córdoba, Julio 1938, Devoto s.n. (BABosq). en las cercanías de Córdoba, 1874, Hieronymus 41 (CORD); Altos Norte, 12 Sept. 1885, Kutrz s.n. (CORD), Altos de Córdoba, 29 Nov. 1885, s.n. (CORD), Pueblo San Martín, 2 Nov. 1900, Kurtz 12302 (CORD), Córdoba, Nov. 1903, 14851 (CORD) and Córdoba, 31 Mayo 1907, Kurtz 14868 (CORD); Carrizal, 14 Junio 1918, Rodrigo s.n. (LP); Córdoba, Enero 1887, Spegazzini 1382 (LP); Córdoba, 14 Oct. 1901, Stuckert 10175 (CORD, G). *Colón*: Salsipuedes, 7 Febr. 1939, Dawson 57 (LP); Jesús María a Los Nogales, 13 Junio 1940, Maldonado 388 (LP). *Cruz del Eje*: Cruz del Eje, 470 m alt., 20 Dic. 1947, Meyer 12875 (LIL) and Soto, 470 m alt., 21 Julio 1947, 12924 (LIL); Cordón Oriental, 24 Agosto 1926, Millán

s. n. (BA). *Ischilín*: Déan Funes, 14 Enero 1890, Kurtz 6748 (CORD, LP). *Minas*: La Estancia cerca de Ciénaga del Coro, 7 Febr. 1944, Castellanos s. n. (BA); entre las Chaeras y Taninga, 14 Febr. 1876, Hieronymus 820 (CORD); Los Pozos, 1932, Hosseus 43 (CORD); desde Sotó 1400 m alt., 26 Oct. 1949, Hunziker 7896 (CORD). *Pocho*: entre Tanninga y Salsacate, 15 Febr. 1876, Hieronymus 410 (CORD). Salsacate, 1400 m alt., 19 Oct. 1947, Hunziker 7497 (CORD); Estancia Pachango entre Pocho y Villa del Tránsito, 3-4 Febr. 1890, Kurtz 6810 (CORD). *Punitia*: Capilla del Monte, Oct. 1907, Doering 14853 (CORD). *Río 1º*: Campo alrededores de la Quinta Soriano al norte del Bajo Grande, 15-31 Enero 1912, Kurtz 16051 (CORD) and 16141a (CORD); Bajo Grande, 6 Julio 1939, Maldonado 1 (LP). *San Alberto*: Monte a San José 13 Kms oeste de Villa Dolores, 8 Julio 1943, Bartlett 20607 (SI) and Los Horrillos to Los Pozos, 9 July 1943, 20622 (UC); Los Rabonas, Agosto 1942, Hunziker 3342 (CORD); entre Altautina y Villa Dolores, 16 Enero 1895, Kurtz 4838 (CORD, LP), Pachango, 3-4 Febr. 1890, 6810 (CORD, NY) and Villa Dolores, 8 Febr. 1890, Kurtz 6812 (CORD); entre Altautina y Villa Dolores, 16 Enero 1895, Stuckert s. n. (G). *San Javier*: 4 Oct. 1927, Castellanos s. n. (BA); La Barranca, 6 Febr. 1939, Castellanos s. n. (BA); Salto, 22 Nov. 1896, Stuckert 901 (CORD). *SAN LUIS*: *Ayacucho*: Villa Luján, 14 Marzo 1882, Galander s. n. (CORD); Luján, 1913, Montero s. n. (LP). *Chacabuco*: Concárán, 603 m alt., 11 Nov. 1944, Varela 486 (LIL) and 2 Febr. 1944, 486 (LIL). *General Pedernera*: Bruch & Carette s. n. (LP) and Alto Penceoso, Febr. 1914, s. n. (LP); Estancia El Bosque, Galía, 24 Nov. 1915, Rodríguez 1468 (LP). *SANTA FE*: Santa Margarita, 9 Oct. 1943, Castellanos s. n. (BAFaC). *BUENOS AIRES*: *La Plata*: 1888-1890, Morong 28 (NY). *SAN JUAN*: *Jáchar*: 1500 m alt., Nov. 1941, Rodrigo 2985 (LP); 1300 m alt., 28 Febr. 1937, Spegazzini 41 (BAB). *Valle Fértil*: San Agustín de Valle Fértil, 31 Enero 1943, Bartlett 19538 (SI). *MENDOZA*: *San Rafael*: Cuadro Bombal, 13 Sept. 1946, Ruiz 10618 (LIL).

9. *Schinus Engleri* Barkley, Brittonia 5: 178. 1944.

Schinus Apparicianus Barroso, Rev. Brasil. Biol. 7: 107-108. 1947.

Shrub or tree to 3 m tall; branches short-pilose to glabrate, tan or brown becoming gray, moderately slender, moderately abundant, spinescent; leaves subcoriaceous, glabrous except for sparse puberulence on the

midvein above, 17-38 mm long., 4-15 mm broad, obovate (rarely some oblong lanceolate), acute or obtuse and mucronate, the margin entire (rarely irregularly crenate-serrate or serrate), slightly subrevolute, narrowed toward the base, abruptly obtuse; petiole 1-2 mm long, sparsely puberulent; inflorescence congested, many-flowered, the axis 2-3 mm long, glabrate; bracts deltoid-ovate, mostly subacute, glabrous or sparsely pubescent on the dorsal surface, the margin ciliate with short simple hairs; pedicels slender, glabrous or sparsely pubescent, about 2 mm long; bracts deltoid-ovate, obtuse, glabrous or very sparsely pubescent on the outer surface, sparsely ciliate with simple hairs; sepals deltoid-ovate, obtuse, glabrous except ciliate on the margin, 1 mm long, .5 mm broad; petals 2.0-3.5 mm long, ovate, truncate, very sparsely pubescent toward the base on the outer surface; stamens between the petals exserted; anthers ovate, .9 mm long, filaments 3.5 mm long.

Type: Brazil: Paraná: Curityba, 2 Sept. 1909, Dusen 8792 in the University of California Herbarium at Berkeley.

The type of *Sch. Apparicianus* Barroso differs from typical *Sch. Engleri* Barkl. in having the filaments somewhat shorter, the leaves are more cuneate at the base and are mostly regularly serrate-dentate.

Distribution in southern Brazil and Uruguay.

Specimens examined: BRAZIL: Glaziou 11160 pr. p. (C). PARANÁ: Curityba, 2 Sept. 1909, Dusén 8792 (S. UC-type); Curityba, 26 Agosto 1911, 13018 (S. G. GH, MO) and Curityba, 13 Sept. 1915, Dusén s. n. (S); Curityba, 10 Sept. 1948, Tessmann 3350 (LIL); Curityba, 10 Sep. 1914, Jonsson 906a (F, G, GH, MICH, NY, S, US). MINAS GERAES: Maria da Fé: 3 Agosto 1946, Pereira 279 (RB-Type of *Sch. Apparicianus*). RÍO GRANDE DO SUL: 22 Nov. 1892, Malme s. n. (S) and Cappio Iacco da Mangeirão, 2 Nov. 1901, 141 (S). URUGUAY: Nov. 1895, Arechavaleta 186 (G) and Sierras de Minas, s. n. (CORD).

9a. *Schinus Engleri* var. *uruguayensis* Barkl., var. nov.

Varietati typicae similis sed foliis longioribus, maioribus, crassioribus, forme variabilioribusque.

Shrub or small tree to 3 meters; branches glabrous or minutely subpuberulent, spinose, at first brownish, later gray; leaves various, juvenile leaves ovate, dentate to incised-dentate, 1.5 to 4 cm long, 1 to 2

cm broad, membranous, glabrous, obtuse at apex and base, petiolulate with petiolules about 2 mm long, later leaves narrowly ovate, entire, thinly coriaceous, 2.5 to 3 cm long. .9 to 1.1 cm broad, acute at apex and base, glabrous, petiolulate on petiolules about 2 mm long, adult leaves abovate, entire, coriaceous, glabrous, 1.5 to 3 cm long, .5 to 1.1 cm broad, rounded-obtuse, cuneate at base, petiolulate, often with 2 or 3 clustered on prominent short shoots; pseudoraceme about 1 cm long, puberulent; bracts deltoid, .5 mm long, .8 mm broad, subacute, puberulent, sparsely short pilose, ciliolate on the margin; pedicel 2 mm long, glabrous; sepals ovate, obtuse, .9 mm long, .3 mm broad, glabrous except sparsely short pilose-ciliate on the margin, petals obovate, glabrous, obtuse, 2 mm long, 1 mm broad; stamens with filaments 2 mm long, anthers ovate, .4 mm long.

Type: Uruguay: Soriano: Juan Jackson, 15 November 1940, Gallinal, Aragone, Bergalli, Campal & Rosengurtt PE-4321-1/2 in LIL.

Distribution from southern Brazil, Uruguay to eastern Argentina.

This variety seems to be distinctly related to *Schinus Engleri* but varying from the typical in the direction of *Sch. fasciculatus* var. *sinuatus*.

Common name: Molle incienso.

Specimens examined: BRAZIL: Sello 3007 (S).

URUGUAY: 21 Agosto 1897, Alboff s. n. (LP); Castillas, 1929, Fiebrig 13509 (LP); Canelones, Nov. 1919, Schroeder 15195 pr. p. (MVM). COLONIA: Riachuelo, 12 Oct. 1936, Cabrera 3871 (LP); Palmira, 9-17 Abril 1927, Doello s. n. (BA); Zona Puerto Franco, Oct. 1937, Rosa 1800a (LIL). FLORIDA: San Pedro del Timote, Cerro Colorado, 2 Oct. 1945, Gallinal, Aragone, Bergalli, Campal & Rosengurtt PE-5548 (LIL, SP). SORIANO: Juan Jackson: 4-Manzón Heber, 17 Abril 1940, Rosengurtt PE4321-1/3 (LIL) and PE-4321-1/2 (LIL); Monzón Heber, 15 Sept. 1940, Gallinal, Aragone, Bergalli, Campal & Rosengurtt PE-4321-1/2 (LIL, LP) and 21 Oct. 1941, PE-4321 (LIL).

ARGENTINA: CORRIENTES: Curuzú Cuatiá, 2-4 Abril 1940, Spegazzini 177 (BAB). ENTRE RÍOS: Federación: La Floresta, Enero 1938, Lourteig 277 (LIL). URUGUAY: Concepción del Uruguay, Sept. 1878, Lorenz s. n. (L) and Nov. 1877, s (K, UPS). VILLAGUAY: Villaguay, Dic. 1942, Devoto 1585 (BABA). SANTA FÉ: General Obligado: Colonia Reconquista, 1900, Kermes s. n. (LP). BUENOS AIRES: La Plata: Isla

Martín García, 5 Nov. 1938, Lauro s. n. (BAB); Punta Lara, 24 Oct. 1937, Castellanos s. n. (BAFaC), Martín García, 28 Sept. 1939, s. n. (BAFaC) and Martín García, 26 Oct. 1947, Castellanos s. n. pr. p. (BAFaC). MAGDALENA: entre Magdalena y Luis Chico, 10 Agosto 1939, Rodrigo 2255 (LP).

10. *Schinus Ramboi* Barkley, nov. spec.

Arbustum usque ad 3 m altum; ramis gracilibus, dense pilosis, spinosus; foliis simplicibus, 2-6 cm longis, 6-12 mm latis, anguste obovatis vel oblanceolato-spathulatis, crasse membranaceis, glabris sed sparse pilosis secundum venas subtus et superne; petiolis .5-4 mm longis, dense pilosis; pseudoracemis brevibus acutis, dense ciliolatis; pedicellis glabris, 3 mm longis; sepalis ovatis, ciliolatis; petalis obovatis, glabris, staminibus 2 mm longis.

Shrub of 2 or 3 meters, the branches slender, densely pilose, spinose; leaves simple, 2 to 6 cm long, 6 to 12 mm broad, narrowly ovate to oblanceolate-spatulate, obtuse to subacute, cuneate, cuneate at the base, thickly membranous, glabrous except sparsely pilose on the main veins above and below, petiolulate with petiolules .5 to 2 mm long or on new shoots to 4 mm long, petiolules densely pilose; pseudoraceme with axis from 2 to 5 mm long; bracts deltoid, acute, .9 mm long, 1.2 mm broad, glabrous except desenly long pilose ciliate; pedicels glabrous, 3 mm long; sepals ovate, obtuse, 1 mm long, 1 mm broad, glabrous except pilose ciliate; petals obovate, obtuse, 2. mm long, 1.2 mm broad, glabrous; stamens, with filaments 2 mm long and anthers orbicular, .4 mm long.

Type: BRAZIL: SAO PAULO: Campos do Jordão, Sept. 1945, Leite 3589 in LIL.

A species showing close affinities to *Schinus longifolius* and *Sch. spinosus*.

Specimens examined: BRAZIL: SAO PAULO: Campos do Jordão, 21 Sept. 1923, Hoehne 8714 (LP) and s. n. (SP); Campo do Jordão, Umuarama, 30 Enero 1935, Kuhlemann s. n. (SP); Campos do Jordão, Sept. 1945, Leite 3589 (LIL-TYPE); RIO GRANDE DO SUL: Farroupilha, 13 Julio 1949, Rambo 42500 (LIL).

11. *Schinus ferox* Hassler, Rep. Nov. Sp. 12: 373. 1913.

Shrub or small tree; branches at first velvety pilose, at first grayish-tan, later grayish-maroon, the branchlets slender, abundant, spinescent; leaves velvety-pilose above and below, 18-45 mm long, 13-23 mm broad, ovate, truncate to obtuse at the apex, margin entire or slightly irregular or even dentate, flat, the base obtuse to broadly subcuneate; petiole slender, about 2-4 mm long, pilose; inflorescence 2-6 mm long, congested, many-flowered, pilose; bracts ovate, truncate, densely pilose with long hairs, ciliate on the margin with long hairs, persistent; pedicels about 2-4 mm long, slender, glabrous; sepals ovate, truncate, glabrous except ciliate on the margin with long simple hairs; petals lanceolate, ovate, truncate, glabrous, about 1.5 mm long; anthers ovate; fruit lavender, 5 mm in diameter.

Type: Paraguay: Julio 1912-1913, Hassler 11261 in the herbarium of the Institut de Botanique Systématique de l'Université de Geneve.

Distribution: Paraguay, Misiones of Argentina to Río Grande do Sul, Brazil.

Specimens examined: BRAZIL: RIO GRANDE DO SUL: Vila Oliva, San Francisco de Paula, 1 Enero 1946, Rambo 30888 (LIL); 28 Agosto 1949, 43164 (LIL) and 12 Julio 1950, Rambo 47282 (LIL).

PARAGUAY: Julio 1912-1913, Hassler 11261 (BAF, G-Type, GH); in alta planicie, Sierra de Amambay, July 1912-1913, 11261a (BAF, G, GH).

ARGENTINA: MISIONES: San Pedro: San Pedro, 21 Febr. 1924, Hauman s.n. (BA); San Pedro, 8 Nov. 1886, Niederlein 1578b (SI).

12. *Schinus spinosus* Engl. in Mart. Fl. Bras. 12³: 388. pl. 81, f. 2. 1887.

Duvaua spinosa Britton, Ann. N. Y. Acad. Sci. 7: 76, at to *Schinus spinosa* Engl. in synon. 1892.

Shrub or small tree; branches velvety pilose when young, later glabrate, light brown, the branchlets moderately slender, rather abundant, spinescent; leaves velvety-pilose, 18-31 mm long, 8-15 mm broad, obovate to oblong, obtuse to truncate and emarginate, the veins deeply sunken in the upper surface, the base cuneate to subcuneate, the petiole slender, long, pilose; inflorescence axis about 3 mm long; bracts deltoid-ovate,

glabrous except ciliate with long white hairs on the margin, .6 mm long, .4 mm broad; calyx lobes ovate, glabrous except ciliate on the margin, .6 mm long, .5 mm wide; petals ovate, glabrous, 2-2.5 mm long, oblong-ovate, 1 mm. wide; anthers ovate, fruit 4-5 mm in diameter.

Type: Sello 3947.

Distribution is apparently confined to Paraná, Brazil.

Specimens examined: BRAZIL: Glaziou 11160 pr. p. (C); Sello 4648 (LISU). PARANÁ: 10 Enero 1911, Dusén 11093 (GH, NY, S) 11 Enero 1911, s.n. (S) and Río Capinzal, 29 Febr. 1916 Dusén 17858 (S).

13. *Schinus polygamus* (Cav.) Cabrera in Frenguelli, Rev. Mus. La Plata (Obra del Cincuentenario) 2: 269, in part. 1937; emend. I. M. Johnston, Jour. Arnold Arb. 19: 254. 1938.

Amyris polygama Cav. Icones 3: 20, pl. 239. 1794.

Duvaua spinescens M. Tenore, Cat. Ort. Bot. Nap. 85. 1845.

Duvaua polygama Kunth, Ann. Sci. Nat. 12: 340. 1824.

Duvaua dentata DC. Prodr. 2: 74. 1825.

Duvaua dependens DC. Prodr. 2: 74. 1825; Gay, His. Fis. Pol. Chili, Bot. 2: 42. 1846.

Duvaua inebriens Gillies ex Hook. & Arn. Hook. Bot. Misc. 3: 176. 1833.

Duvaua ovata Lindl. Bot. Reg. 29: pl. 1568. 1833, Walpers, Report. 1: 550. 1842.

Duvaua ornata Phil. f. Cat. Pl. Vasc. Chil. 47. 1874.

Duvaua dependens var. *ovata* Arechaval. Anal. Mus. Nac. Montev. 3: 300. 1901.

Duvaua dependens var. *obovata* Arechaval. Anal. Mus. Nac. Montev. 3: 300. 1901.

Schinus dependens Orteg. Hort. Matr., dec. 8: 102. 1798.

Schinus dentatus Andr. Bot. Repos. pl. 620. 1799.

Schinus Huygan Ruiz ex Engl. in Mart. Fl. Bras. 12²: 387, in syn. 1876, non S. Huynan Molina 1783.

Schinus dependens var. *brevifolia* Fenzl. ex Engl. in Mart. Fl. Bras. 12²: 387. 1876.

Schinus dependens var. *longifolia* Fenzl. ex Engl. in DC. Monog. Phaner. 4: 381. 1883.

Schinus Huyngan Kuntze, Rev. Cen. Pl. 32: 45. 1898, non S. Huynan Molina, 1783.

Schinus dependens var. *subintegra* Arechaval. Anal. Mus. Nac. Montev. 3: 300, excl. *S. longifolius* and *S. dependens* var. *integrifolia* in syn. 1901.

Schinus polygamus var. *chilensis* Barkley, Brittonia 5: 175. 1944.

Schinus polygamus f. *ovatus* Cabrera, Rev. Mus. La Plata 2: 34. 1938.

Shrub or small tree; branches glabrous or minutely puberulent, grayish-tan to brown becoming maroon-gray, from little branched to much branched, the branchlets very slender, spinescent, sometimes with short shoots; leaves thinish, glabrous or less often minutely sparsely pilose, 9-35 mm long, 3-10 mm broad, mostly oblanceolate (less often obovate, oblong, or spatulate), acute to obtuse at the apex, the margin entire (rarely serrate or dentate or with 2 lobes near the base); the base obtuse to cuneate; petiole slender, 1-3 mm long, sparsely short-pilose; inflorescence an expanded pseudoraceme with axis to 2 cm long, the axis sparsely pilose to glabrate; bracts deltoid-ovate, sparsely pilose to glabrate on the outer surface, ciliate on the margin; pedicels slender, glabrous to densely pilose (usually pilose below the abscission disk and sparse-pilose or glabrous above); sepals deltoid-ovate, glabrous or sparsely pilose on the dorsal surface, ciliate on the margin; petals ovate to broadly obovate, glabrous, sometimes ciliate on the margin; anthers oval; fruit blackish, about 4 mm diam.

Type: Madrid from Chile, Cavanilles s.n. (MA) (or plate 239, Cavanilles *Icones* 3 of 1794).

A polymorphic species with variations of many types, merging into more or less distinct varieties. Some of the variations simulate characters of other species in the section. It is not clear to the author to what this similarity may be ascribed, but clearly it is not due to conspecificity.

The leaves of *Castellanos* (18 Enero 1938) are similar in form to those of *Schinus patagonicus*.

Common names: Huingan, Huingen.

Distribution: Central Chile and the frontier of Mendoza.

Specimens examined: CHILE: 1831, Cuming 368 (BM); "Pérou", Dombey 609 (NY), 879 (NY), 880 (F, G, L) and 887 (NY); Gay s.n. (GH) Husbands 704 (US); Gillies s.n. (GH); Paso Cruz, 1500 m alt., Kuntze s.n. (NY); Coneumén, Enero 1863, Landbeck s.n. (SGO); Lavon 2 (G) and 3 (G); "Perú", Pavón s.n. (F); Petré s.n. (S); Philippi s.n. (S) and Tinguiririca, Sept. 1864, s.n. (SGO); Pöping 257 (MO); Ramón s.n. (GH); "Perú-Chile", Ruiz s.n. (F, G); 1884-1885, Statin s.n. (NY); Aguada de la Vischacha, 1860, Volckmann 32 (SGO) between Valparaíso and Santiago, Wilkes s.n. (US); ATACAMA: Sandón, Philippi 380e (SGO), Finca de Chañaral, 1854, 379 (SGO); and

Copiapó, Sept. 1885, Philippi 380d (SGO). ACONCAGUA: Río Blanco, 18 Enero, 1941, Kausel 878 (SGO), Río Aconcagua cerca Río Colorado, 19 Abril 1946, 2205 (SGO Kausel) and Quiliman, Maimalicau, 13 Oct. 1948, Kausel 2633 (LIL, SGO Kausel); Río Blanco al este de Los Andes, 1400 m alt., 21 Febr. 1926, Johnston 1454 (BA) and 6275 (GH), South of Los Andes, 5 Nov. 1948, Killip & Pisano 39791 (UC, US). CAUTÍN: Truf-Truf, 150 m alt., 10 Die. 1947, Gunckel 16839 (SGO Gunckel); Temuco, Oct. 1925, Claude-Joseph 4831 (GH, US); Cunco, 360 m alt., 7 Abril 1920, Hollermeyer 243 (SGO Gunckel); Río Quipe cerca de Quipe, 2 Febr. 1942, Kausel 1005 (LIL, SGO Kausel); Lautaro, Philippi s.n. (SGO). CAUQUENES: Constitution, Ote. 1890, Reiche s.n. (SGO); Maule, 1 Febr. 1906, Sargent s.n. (GH). COLCHAGUA: Hacienda Querelema, 1924, Moore 5 (SGO) and s.n. (SGO); Paihuano, Oct. 1878, Philippi s.n. (SGO); Talarehue, 30 Dic. 1950, Ricardi 919 (LIL), Puente Negro, 31 Dic. 1950, 926 (LIL) and Río Claro, 1 Enero 1951, Ricardi 944 (LIL). CONCEPCIÓN: Concepción, Villamavida, 150 m alt., 12-25 Febr. 1945, Kausel 1619 (LIL, SGO Kausel); Ovalle, 28 Sept. 1947, Jiles 511 (LIL). COQUIMBOS Fundo Palo Colorado, 14 Oct. 1948, Kausel 2643 (LIL); Coquimbo, Volckmann s.n. (SGO). CURICO: Planicie del Río Claro, Los Queñes, 18 Enero 1941, Kausel 878 (SGO Kausel); Curico, Los Queñes, 1218 m alt., 13 Febr. 1936, Mejía 7870 (F, G, GH, S, U, US). LINARES: Termas de Longaví, 18 Enero 1938, Castellanos s.n. (BA), San Pablo, Río Longaví, 22 Enero 1938, s.n. (BA). ÑUBLE: Valle del Alico, Febr. 1935, Jarpa s.n. (SGO-Gunckel); Baños de Chillán, Enero 1878, Philippi s.n. (SGO). RANCAGUA: Agosto 1828, Bertero 130 (G), O'Higgins, Quintero, June 1830, 230 (L) and O'Higgins, Quintero, 1835, Bertero 250 (NY); Rancagua, Miers s.n. (BM). SANTIAGO: Voleán, 19 Junio 1938, Andreas 801 (U); Las Condas, río Yeso, 1850 m alt., 10 Nov. 1944, Biese 168 (LIL); Cerro San Cristóbal, 21 Die. 1935, Cabrera 3444 (GH, LP, NY); Oct. 1921, Claudio-Joseph 1703 (US); Santiago, Río Colorado, Cruckshanks s.n. (BM); Cerro San Cristóbal, 14 Marzo 1942, Espinosa s.n. (SGO), 3 (SGO) and 4 (SGO); Salto de Agua, Dic. 1854, Germain s.n. (SGO); Valle del Río Voleán, 1600 m alt., Marzo 1933, Grandjot s.n. (MO); Uspallata Pass, Río Blanco, 1400 m alt., 31 Oct. 1928, Gunther & Buchtien s.n. (S); Montes cerca Río Colorado, 700 m alt., 2 Enero 1902, Hastings 404 (UC, US); 9 Abril 1929, Helmdach 1863 (SGOQF); Paico, Marzo 1938, Kausel 389 (LIL), Valle del Río Maipo, 1300 m alt., 14 Oct. 1945, 1662 (LIL), Valle del Yeso, 1350 m. alt., 14 Oct. 1945, 1663

(LIL) and Cerro San Cristóbal, 800 m alt., 31 Oct. 1948, Kausel 2681 (LIL, SGO Kausel); Quebrada de Peñolín, 800 m alt., 11 Marzo 1951, Kausel y Barkley 21Ch038 (SGO Kausel); Estación Volcán, 1500 m alt., 15 Nov. 1925, Lossen 56-GII (GH); El Volcán, 1500 m alt., 15 Nov. 1925, Looser 69 (SGO Looser), Cerro San Cristóbal 700-800 m alt., 10 Mayo 1923, 3331 (LP, SGO Looser), Cena del Roble, 1100-1300 m alt., 6 Nov. 1927, 5616 (SGO Looser), Cuesta de la Durmida, 22 Oct. 1927, 5617 (SGO Looser), Río Colorado, 1300 m alt., 19 Sept. 1926, 5618 (SGC Looser), Cajín de Maipo, 1200-1400 m alt., 23 Junio 1926, 5619 (SGO Looser) and 14 Nov. 1926, 5620 (SGO Looser), Cerro de San Cristóbal, 9 Dic. 1923, 5621 (SGO Looser) and 2 Mayo 1926, 5622 (SGO Looser), el Toho, 1300 m alt., 12 Oct. 1929, s.n. (SGO Looser) and Hacienda Chacabuco, 700 m alt., 1-3 Nov. 1929, Looser s.n. (R); Renea, Oct. 1922, Montero 57 (GH) and El Monsana, 870 m alt., 3 Dic. 1927, 271 (F, GH); Cerro de Rinca, Muñoz 3497 (SGO); San Cristóbal, 4 Nov. 1877, Philippi 380b (SGO) and Santiago, Oct. 1927, Ruabal 1862 (SGO QF); Quebrada Dormeda-Cumbre, 8 Marzo 1951 Sudzuki, Sotomeyer y Barkley 21Ch011 (SGO); San Gabriel en el Valle de Maipú, 7 Febr. 1936, West 6010 (GH, CU); Río San Francisco, 1600 m alt., Dic. 1924, Werdermann 486 (CAS, F, GH, LIL, MO, NY, U, UC, US). VALDIVIA: Panquipulli, Julio 1924, Claude-Joseph 2587 (US); San José de la Mariquina V., 50 m alt., Marzo 1926, Hollermayer 1191 (CAS, F, G, GH, LIL, NY, S, U, UC, US) and 15 Dic. 1935, 243 (LP); Valdivia, Nov. 1852, Philippi s.n. (SGO) and Pampa Negron, Dic. 1864, 380a (SGO). VALPARAÍSO: 1832, Cuming 1834 (NY); Limache, Quebrada Ulard, 30 Febr. 1928, Garaventa 254 (SGO Looser) and Entero de Raitenes, 15 Oct. 1931, 2691 (SGO Looser); Orrego baja, Abril 1938, Kausel 416 (SGO Kausel).

ARGENTINA: MENDOZA: Tunuyán: El Manzano, 12 Junio 1944, Covas 1776 (LIL, Cuyo); Paso de las Puntas, 29 Enero 1934, Ruiz 2111 (LIL, LP); 1890-1891, Smith s.n. (S).

13a. *Schinus polygamus* var. *parviflorus* (March.) Barkley, Brittonia 5: 176. 1944.

Litrea crenata Phil. Linnaea 33: 39. 1864.

Duvava dependens var. *parviflora* Arechaval. Anal. Mus. Nac. Montev. 3: 300. 1901.

- Schinus polygamus* forma *parviflorus* Cabr. Rev. Museo La Plata 2: 34. 1938.
Schinus dependens var. *parviflorus* March. Rev. Anae. 164. 1869. pr. p.
Duvava crenata Philippi, F. Atacamensis seu Enum. Plant, 14. 1960; non *Schinus crenata* Engler, Bot. Jahrb. 1: 423. 1881, non Cabr. Rev. Mus. La Plata n. s. 2: 15. 1938, nec. Barkley, Britt. 5: 186. 1944.
Schinus dependens var. *crenata* Engl. in Mart. Fl. Bras. 12 2: 388. 1876.
Schinus dependens subsp. *crenatus* Reiche, Anal. Univ. Chile 97: 60. 1897; Fl. Chile 2: 24. 1898.
Schinus dependens var. *crenata* Arechaval. Anal. Mus. Nac. Montev. 3: 300. 1901, pro parte.
Schinus polygamus f. *crenatus* Cabr. Rev. Museo La Plata 2: 32. 1938.

Shrub or small tree, 2-5 m tall; branches glabrous (or at first minutely and sparsely pilose), brown later becoming grayish-maroon, the branchlets few, slender, rigid, spinescent; leaves subcoriaceous or thinly subcoriaceous, glabrous or essentially so, 18-35 mm long 9-19 mm broad, ovate (sometimes broadly oblong or obovate), truncate to obtuse, rarely subacute, mucronate or not, the margin often from entire to crenate-dentate or crenate-serrate at the apex, never near the obtuse to subacute base; petiole slender, 2-4 mm long, glabrate or sparsely pilose; inflorescence-axis 2-3 cm long, sparsely pilose or glabrate, many-flowered; bracts deltoid, subacute, persistent, glabrous or with a few hairs on the outer surface, sparsely ciliate on the margin or the margin without cilia; pedicels 4-5 mm long glabrous or very sparsely short-pilose; sepals deltoid, subacute, glabrous except for the margin which usually is sparsely ciliate; petals ovate, truncate, glabrous except for a few fine cilia on the margin, about 2 mm long; anthers ovoid; fruit about 5 mm in diameter, dark purple.

This variety differs from the typical variety largely in the shape, size, margin and texture of leaf. The type has not been seen and unfortunately may prove to be another plant. Wagenknecht 18488 shows the leaves to be distinctly dimorphic. Barros 827 and Looser 5155 are reminiscent of *Sch. Johnstonii*.

Type: BOLIVIA: Pentland 18.

Common name: Molle.

Distribution in central Chile.

Specimens examined: CHILE: Bertero s.n. (GH) Dombe 879 (BM, NY); 30 Oct. 1896, Dusén s.n. (S); Gay s.n. (BM); Baneturrias, Geisse s.n. (SGO); Zorrilla, 400 m alt., 22 Oct. 1949, Jiles 1618 (LIL);

Philippi 197 (L, UPS). ACONCAGUA: San Felipe, Die. 1925, Claude-Joseph 3817 (SGO Gunckel); San Francisco de Limache, 11 Oct. 1926, Looser 3327 (LP); San Felipe, Die. 1925, Claude-Joseph 3807 (US); 10 Kms oeste de Quilpué, 300 m alt., 28 Nov. 1935, West 3972 (GH, UC); 1885-1887, Geisse 136 (NY); Copiapó, 1886, Gigoux s.n. (GH); Copiapó, quebrada de Paipote, 2000 m alt., 3-4 Nov. 1925, Johnston 4852 (BA, GH) and Copiapó, quebrada Conchas a Finca Carrizalillo, 2200 m alt., 11 Nov. 1925, 4971 (BA). ATACAMA: Molle, Die. 1888, Geisse s.n. (SGO Gunckel). CAUTÍN: Trailanqui, 11 Nov. 1929, Gunckel 849 (SGOGunckel); Río Guspe, 4 Nov. 1905, Middleton s.n. (G). CONCEPCIÓN: Fundo Valencia en suelos arenosos, 112 m alt., 1-3 Nov. 1939, Looser 5155 (SGOLooser). COQUIMBO: Illapel, Desvío Pola hasta Tunel, 1200-1350 m alt., 12 Oct. 1945, Biese 1918 (LIL); 1843, Bridges 1337 (G, GH); Rivadavia, 1000 m alt., 17 Enero 1936, Cabrera 3500 (F, GH, LP, NY); Caldeberg s.n. (G); Ovalle, Loniella, 400 m alt., 29 Junio 1945, Jiles 622 (LIL); Aconcagua a Coquimbo, Febr. 1929, Kausel 295 (SGOKausel); Illapel, Hacienda Concumen, 1200 m alt. 20-24 Oct. 1941, Muñoz, 2203 (SGO); Estancia Fray Jorge al sud de Ovalle, 18 Agosto 1917, Skottsberg 884 (NY, S); Ovalle, Quebrada La Embarrada, 1600 m alt., 29 Nov. 1939, Wagenknecht 18488 (G); Rivadavia, 800 m alt., 3 Nov. 1923, Werdermann 85 (CAS, F, G, GH, LIL, MO, SI, U, UC); Ovalle, 500 m alt., 9 Nov. 1938, Worth & Morrison 16413 (SI). CURICÓ: Llico, Febr. 1913, Barros 827 (SGOGunckel). ELQUI: Vieña, Nov. 1937, Ureta s.n. (SGO). OVALLE: Fray Jorge, 26 Sept. 1935, Muñoz B. 50 (GH) and s.n. (SGO). SANTIAGO: Río Yeso a Chacayes, 1600 m. alt., 9 Nov. 1946, Biese 106 (LIL) and Río Yeso, 2000 m alt., 17 Nov. 1944, 319 (LIL); 20 Nov. 1921, Claude-Joseph 1474 (US); San Antonio, Valle de Malvilla-tal, 26 Marzo 1948, Kausel 2494 (LIL, SGOKausel); Cerro San Cristóbal, 16 Oct. 1927, Looser 5627 (SGOLooser) and Hacienda Chacabuco, 1-3 Nov. 1929, 5628 (SGOLooser); Santiago, Monte San Cristóbal, 25 Abril 1907, Middleton s.n. TALCA: Madivam, 27 Oct. 1896, Dusén s.n. (S). VALDIVIA: San José de Mariquina, 22 Oct. 1929, Aravena s.n. (SGOGunckel) and 176 (SGOGunckel) and Die. 1930, 313 (SGOGunckel); Panquipulli, Julio 1924, Claude-Joseph 2587 (SGOGunckel); Pampa Negrón, Die. 1864, Philippi s.n. (LP) and 380c (LP). VALPARAÍSO: Quiplé, 18 Nov. 1928, Garaventa 239 (BA, LP); Algarrobo, Playa al Canelo, 15-26 Febr. 1950, Kausel 3094 (LIL, SGO Gunckel, SGOKausel) and Algarrobo, 22-25 Marzo 1951, Kausel 3220 (SGOKausel, US); Limache, 19 Sept. 1927, Looser 5625 (SGOLooser),

Concon, 14 Agosto 1927, 5626 (SGOLooser) and Quintero, 6 Febr. 1944, Looser 5629 (SGOLooser).

14. *Schinus microphyllus* I. M. Johnston, Jour. Arnold Arb. 19: 258. 1938.

Shrub to 2 m tall; branches densely velvety pilose, light brown becoming maroon-gray, the branchlets slender, spinescent; leaves thin, at first sparsely pilose becoming glabrate, 4-18 mm long, 3-10 mm broad, obovate, obtuse, entire to crenate-serrate, the base cuneate; petiole slender, short-pilose, 1-3 mm long; inflorescence 7-10 mm long, short-pilose, few-flowered; bracts broadly deltoid, pubescent on the outer surface, ciliate on the margin with short hairs; pedicels about 3 mm long, sparsely pilose; sepals lance-deltoid, truncate, sparsely pilose on the outer surface, ciliate on the margin with short hairs; petals broadly ovate, emarginate, glabrous.

Type: Perú: Apurimac: above Argama, 3800 m alt., 5 Nov. 1935, West 3747 in the Gray Herbarium of Harvard University.

Distribution in the high mountains of south central Perú.

Specimens examined: PERU: APURIMAC: Andahuayles, Pocheota, 2900 m alt., 23 Dic. 1948, Nemhad, 978 (Cuzco V); Andahuayles, Pauecha a Santa Elena, 3010 m alt., 5 Enero 1950, Vargas 8752 (Cuzco V); Andahuayles, Pincos, 2700 m alt., 19 Febr. 1939, Stork & Horton 10679 (F, G); 2500-2600 m alt., 1909-1914, Weberbauer 5839 (F, GH); above Argama, 3800 m alt., 5 Nov. 1935 West 3747 (GH-TYPE, UC). AYACUCHO: Tambo, 3100-3200 m alt., 30 Mayo 1910, Weberbauer 5552 (GH, S); Cuzco: Urubamba Valley, 2760 m alt., 10 Sept. 1928, Herrera 2104 (F); Orubamba, 3000-3600 m alt., Enero 1867, Pearce s.n. (K); Calca, 3060 m alt., Enero 1938, Vargas 957 (Cuzco V) and Urubamba, Tarapata, 2800-3000 m alt., 6 Marzo 1939, 11052 (F, G).

Section **PSEUDODUVUA** Barkley, *Brittonia* 5: 179. 1944

Frutices vel arbores; ramulis non spinescentibus; foliis saepe crassis.

Type species: *Schinus latifolius* (Gillies) Engl. in Mart. Fl. Bras. 12²: 389. 1876.

15. *Schinus andinus* (Engl.) I. M. Johnston, Jour. Arnold Arb. 19: 259. 1938.

Schinus andinus var. *subtridentatus* Barkl. Brittonia 5: 179. 1944.
Schinus dependens var. *parviflorus* March. Rev. Anac. 164. 1869.
Schinus dependens var. *crenatus* Engl. in Mart. Fl. Bras. 122: 388. 1876.
Schinus dependens var. *andinus* Engl. in DC. Monogr. Phaner. 4: 341. 1883*.
Schinus Huynan var. *subtridentatus* Kuntze, Rev. Gen. Pl. 32: 46. 1898.

Shrub under 2 m high; branches very slender to moderately slender, at first brownish later dark maroon-gray, very sparsely and minutely pilose or glabrate, subpungent or rarely sub-spinescent; leaves subcoriaceous, glabrous (rarely sparsely short-pilose at first), 3-26 mm long, 2-10 mm broad, obovate-spatulate, obtuse at the apex, crenate-dentate, somewhat subrevolute, the base cuneate or subcuneate; petiole slender, 0.5-3 mm long, very sparsely puberulent; inflorescence usually 1-2 mm long, sparsely short-pilose, congested, several-flowered; bracts deltoid-ovate, sparsely pilose, ciliate on the margin; pedicels slender, about 3 mm long, sparsely minutely pilose below the abscission plate, glabrate above; sepals deltoid, subacute, glabrous or minutely puberulent on the outer surface, ciliate on the margin with simple hairs; petals ovate, truncate, glabrous, about 1.2 mm long; fruit pink, 7 mm in diameter.

This species lies intermediate between the sections *Euduvaua* and *Pseudoduvaua*, its stems being sometimes almost spinose. Its characters place it between *Sch. microphyllus* on one hand and *Sch. myrtifolius* on the other. Kuntze (26 Marzo 1892) closely approaches *Sch. myrtifolius*.

Type: Bolivia: La Paz: Larecaja: cerca Sorata, 2650-2800 m alt., Agosto-Enero 1858, *Mandon* 768.

Distribution on the Bolivian plateau.

Specimens examined: BOLIVIA: Songo, Nov. 1890, Bang 895 (F, GH, MO, NY, US); Calderillo, 3300 m alt., 7 Enero 1904, Fiebrig 2477 (G, GH, L, LP, S, U, US); Talgehänge von Araca, 3400 m alt., Nov. 1911, Herzog 2364 (L, S) and Felsheide bei Teneria, 3200 m alt., Nov. 1911, 2469d (L); COCHABAMBA: Tunari, 3000 m alt., Kuntze s.n. (NY) and Cochabamba, 26 Marzo 1892, s. n. (NY-TYPE of *Schinus Huynan*

* “*S. andinus* (Engl.); foliis subcoriaceis oblongis, 1,5-2 cm. longis, 0,7-1,3 cm. lat'is, obtusis, margine crenatis, basi in petiolum 2-3 mm longum cuneatim angustatis. — *Sch. dependens* δ. *crenata* Engl. in Fl. bras. — *Sch. dependens* var. *parviflorus* L. March., 1. c., 164.

Andes Bolivienses, e gr. pro. Larecaja in vicinia Sorata, Poqueromi ad rivum de Challasugo (*Mandon* Pl. And. Boliv., n. 768); Chivesivi, in valle da Paz, alt. 2800-4000 m (Pentland, n. 1868 in herb. Mus. Paris)'.

var. *subtridentatus*). LA PAZ: La Paz, 3200 m alt., 1890, Bang 160 (C, CORD, F, GH, LIL, MICH, MO, NY, S, US); Larecaja cerca Sorata, Agosto-Enero 1858, 2650-3800 m alt., Mandon 768 (G-TYPE of *Schinus dependens* var. *crenata* Engl., GH, NY, S, US); La Paz, 3200 m alt., Oct. 1885, Rusby 1446 (NY). SANTA CRUZ: Samaipata, Vallegrande, 2000 m alt., 17 Marzo 1920, Steinbach 3783 (LIL). SUCRE: Chuquisaca, Villa María, Hacienda Ressini, 3200 m alt., Febr. 1949, Cárdenas 4107 (LIL, US) and 4169 (LIL). TARATA: near Anzaldo, 8 Enero 1943, Cárdenas, Cutter & Gandarillas 7605 (US).

16. *Schinus myrtifolius* (Griseb.) Cabrera in Frenguelli, Inst. Mus. Nac. La Plata (Obra Cincuentenario) 2: 269. 1937, as to *Cybianthus myrtifolius* Griseb. in syn., emm. Barkley (but not Barkley, Brittonia 5: 1671. 1944.

Cybianthus myrtifolius Griseb., Symb. Fl. Argent. 222. 1879.

Shrub or small tree of 3 to 5 m, the branches non-spinose, flexuous, maroon later becoming grayish brown; the leaves petiolate on petioles 3 to 7 mm long, essentially glabrous (papillose under the lens), lamina 2 to 3.5 cm long, obovate and obtuse, or lance-ovate and subacute, or ovate and subacute margin subentire or obscurely but more or less regularly crenate, broadly cuneate at the base, glabrous, almost shining above; inflorescence an elongate glabrous pseudoraceme, with pedicels 3-5 mm long; bracts triangular, 1 mm long, .7 cm broad; sepals deltoid, .9 mm long, .6 mm broad; glabrous or essentially so, petals obovate, 1.1 mm long, .7 mm broad.

The leaves of this species are somewhat thicker than those of *Schinus bumelioides* Johnst. with which the type has long been confused, and the margins of the present species are more or less crenate even though obscurely so. It has nonspinose branches in contrast to *Schinus bumelioides* whose branches are spinose tipped. The leaves of this species are much smaller than those of *Schinus Venturi* and larger than those of *Sch. andinus*. The specimens from Bolivia have leaves ovate and are less obscurely crenate, their leaf bases are almost obtuse.

Type: Argentina: Salta: Yacone cerca de Salta, Marzo 1873, Lorentz & Hieronymus 317 in the Grisebach Herbarium.

Common name: Molle.

Distribution: Bolivia and Argentina.

Specimens examined: BOLIVIA: SANTA CRUZ: Samaipata, 2000 m alt., Marzo 1911, Herzog 1714 (L, S), 20 Oct. 1928, Steinbach 8346 (F). TARIJA: Cuesta del Tambo entre el Tambo y Narváez, 11 Junio 1873, Lorentz & Hieronymus 875b (CORD) and 884 (CORD).

ARGENTINA: JUJUY: Oct. 1892, Kuntze s.n. (NY). Capital: Terma de Reyes, 17 Febr. 1940, Burkart & Troncoso 11198 (SI); Quebrada Yala, 1450 m alt., 29 Enero 1940, Schreiter 10875 (GH, LIL). Santa Bárbara: 1500 m alt., 7 Julio 1901, Fries 335 (S). Tumbaya: Volcán, 2150 m alt., Castillón 6567 (LIL). Valle Grande: Valle Grande, 3000 m alt., 28 Febr. 1940, Burkart & Troncoso 11634 (SI). SALTA: Potrero de la mula, Dic. 1938, Devoto, Lambois & Rail 822 (BABosq). Anta: El Centinela, Nov. 1937, Devoto & Alberti 1094 (BABosq) and 2388 (BABosq). Capital: San Lorenzo, 1800 m alt., 30 Agosto 1949, Hueck 253 (LIL); Yacone cerca de Salta, Marzo 1873, Lorentz & Hieronymus 317 (CORD-isotype); Quebrada de San Lorenzo, 1200 m alt., 14 Oct. 1930, Venturi 10525 (SI). Orán: San Andrés, 1938, Carmelich & Rial 365 (BABosq). Viña: Coronel Moldes La Hayada, 14 Nov. 1942, Burkart 13147 (SI), 13145 (SI) and 13144 (SI); Sierras entre La Viña y Amblair, 15 Febr. 1943, Castellanos s. n. (BA).

17. *Schinus Venturii* Barkley, Brittonia 5: 179. 1944.

Small tree; branches slender, very minutely and sparsely puberulent, not spinescent; leaves lance-ovate to ovate, 30-85 mm long, 10-35 mm broad, acute to narrowly obtuse, the margin entire or slightly irregular, the base truncate to broadly subcuneate; petiole 4-7 mm long, sparsely puberulent; inflorescence an expanded pseudoraceme, several-flowered, the axis about 15 mm long, minutely and sparsely puberulent; bracts deltoid, acute, very sparsely puberulent on the dorsal surface, ciliate on the margin with short simple hairs; pedicels sparsely puberulent, about 3 mm long; sepals narrowly ovate, obtuse at the apex, glabrous, about 1.3 mm long; fruit lavender, about 6 mm in diameter.

Type: Bolivia: Tarija: Bermejo, 1000 m alt., 27 Nov. 1903, *Fiebrig 2291* in the herbarium of the Missouri Botanical Garden.

This membranous-leaved species shows affinities to *S. gracilipes* and *S. latifolius*.

Distribution in southern Bolivia and northern Argentina.

Specimens examined: BOLIVIA: TARIJA: Bermejo, 1000 m alt., 27 Nov. 1903, Fiebrig 2291 (F, LIL, MO-type, SP, US); Cuesta del Tambo entre el Tambo y Narváez, 11 Junio 1873, Lorentz & Hieronymus 875 (CORD) and 892 (CORD) and 10 Febr. 1873, Lorentz & Hieronymus 942 (CORD, LP).

ARGENTINA: SALTA: Filo Ronqui, Nov. 1937, Tortorelli 1880 (BABosq); El Quercueillal, Nov. 1937, Devoto & Rial 1354 (BABosq) and 2395 (BABosq). Orán: San Andrés, 15 Sept. 1873, Lorentz & Hieronymus 447 (CORD).

18. *Schinus gracilipes* I. M. Johnston, Jour. Arnold Arb. 19: 257. 1938.

Small trees to 10 m tall; branches minutely and very sparsely puberulent, slender, not spinescent; leaves very sparsely and minutely puberulent, of two somewhat dissimilar types, the common type ovate, 3-8 cm long, 9-30 mm broad, obtuse at the apex, regularly obscurely crenate, obtuse at the base, the less common type lance-ovate, 5.5-12.5 cm long, 18-35 mm broad, subacute, regularly and coarsely crenate-serrate, subacute at the base; petioles 5-25 mm long, sparsely puberulent; inflorescence a contracted panicle, axillary or sometimes terminal, the axis puberulent, about 2 cm long; bracts deltoid, densely puberulent, ciliate on the margins with short simple hairs; pedicels densely short-pilose below the abscission disk, sparsely so above, about 4 mm long, slender; sepals deltoid, acute, puberulent, ciliate on the margin with simple hairs; petals broadly deltoid-ovate, acute, very sparsely ciliate on the margin, otherwise glabrous; fruit violaceous, about 6 mm in diameter.

Type: Argentina: Tucumán: Trancas: Tapia, 700 m alt., Aug. 1925, *Venturi 3887* in the Gray Herbarium of Harvard University.

Common names: Blanquillo, Horcomolle, Horco-molle, Molle, Molle blanco, Molle de la quebrada, Molle del cerro, Molle trepador.

Distribution: Argentina, from Jujuy to Tucumán and Catamarca.

Specimens examined: ARGENTINA: JUJUY: Ledesma: Río San Francisco, Dic. 1906, Spegazzini 1357 (LP). Santa Bárbara: Santa Cornelio, 1 Marzo 1911, Spegazzini 1362 (LP). SALTA: Cafayate: camino del Arcas a Trancas, Dic. 1896, Spegazzini 1339 (LP); Candelaria: quebrada de Unquillo o El Chorro, 1400 m alt., 7 Nov. 1931, Schreiter 6669 (LIL); Sierra de la Candelaria, 1700 m alt., 23 Sept. 1929, Ven-

turi 9571 (CAS, GH, LP, MO, NY, S, SI, US). *Capital*: alrededores de Salta, Die. 1896, Spegazzini 1336 (LP). *Chicoana*: Río de la Zanja, Nov. 1912, Jörgensen 13192 (LIL). *Guachipas*: Pampa Grande, 1800 m alt., 1 Sept. 1949, Hueck 259 (LIL); Cuesta entre Guachipas y Ojo de Agua, 8 Dic. 1873, Lorentz & Hieronymus 1185 (CORD, LP); alrededores de Pampa Grande y Cerro Cristal, 1740-2670 m alt., 1900, Nelson (CORD); Pampa Grande, Enero 1897, Spegazzini s.n. (LP) and 1337 (LP). *Orán*: Las Juntas, Julio 1896, Bruch s.n. (S) and Las Juntas, Dic. 1896, s. n. (LP, S, SGOGunckel). *TUCUMÁN*: 18 Oct. 1948, Fries s. n. (S); Cuesta del Hualnicho, 2500 m alt., 10 Mayo 1914, Rodríguez 29 (LIL, NY, SI). *Burruyacú*: Cerro de Medina, 1200 m alt., 1 Marzo 1914, Monetti 2038 (LIL); Enero 1911, Stuckert 22059 (LIL). *Capital*: Río Salí, 450 m alt., 29 Oct. 1921, Venturi 198 (LP). *Leales*: Puente río Potrero en el camino al Suncho, 1500 m alt., Julio 1920, Schreiter 1355 (LIL). *Tafí*: Tafí del Valle, 2000 m alt., 19 Nov. 1949, Araque & Barkley 19Ar153 (LIL), Tafí del Valle, 2000 m alt., 20 Nov. 1949 19Ar186 (LIL) and 19Ar190 (LIL); Tafí del Valle, 2000 m alt. 24 Sept. 1949, Balegno, Araque & Barkley 19Ar112 (LIL); Tafí, 2000 m alt., 7 Febr. 1907, Budin 596 (LIL); Anfama, 24 Enero 1935, Castellanos s. n. (BA); río Blanco, 22 Dic. 1907, Castillón 200a (LIL), río Blanco, 13 Dic. 1907, 201a (LIL), Valle de Tafí, Nov. 1911, 2795 (LIL) and cerro de San Javier, 30 Agosto 1914, Castillón 3512 (LIL); Tafí del Valle, 9 Febr. 1907, Dinelli 596 (BAB); entre Ciudad Universitaria y Taficillo, 1400-1600 m alt., 18 Nov. 1950, Hueck s. n. (LIL); Tipa, Dic. 1911, Jörgensen s. n. (BAF); Tafí del Valle, 24 Abril 1948, Kravovickas & Banet 4532 (BAB, LIL); Sierra San Javier, 1400 m alt., 21 Marzo 1899, Lillo 1818 (LIL), Cumbre Sierra San Javier, 1300 m alt., 24 Oct. 1897, 2060 (LIL, NY), Cuesta Duraznos Blancos, 1800 m alt., 26 Enero 1903, 2945 (LIL) and Tafí, 2000 m alt., 9 Febr. 1907, Lillo 5710 (G, LIL); Tafí del Valle, 9 Dic. 1945, Lourteig s. n. (LIL), Tafí del Valle a El Nogalar, Meyer 14619 (LIL); Garabatal, 30 Nov. 1944, Olea 30 (LIL) and 55 (LIL), and Sala Aneajulio, 15 Dic. 1944, 110 (LIL); Tafí del Valle, 1950 m alt., 24 Sept. 1949, Palacios, Araque & Barkley 19Ar113 (LIL); Barranca Corral, 2000 m alt., 8 Enero 1943 Rohmeder (LIL); entre El Nogalar y Tafí del Valle, 1600 m alt., 9 Enero 1951, Scolnik, Meyer & Araque 1277 (LIL); Quebrada la Hoyada, 1800 m alt., 26 Nov. 1920, Schreiter 90 (LIL), 91 (LIL), 1403 (LIL) and 1404 (LIL), Quebrada de la Hoyada a la Cuesta de los Bravos, 1600 m alt., 30 Sept. 1924, 3312 (LIL, NY) and Garabatal, 1600

m alt., 25 Oct. 1930, Schreiter 6547 (NY) and 25 Nov. 1930, 6547 (LIL); Tafí del Valle, 23 Abril 1950, Singer s. n. (LIL); Tafí del Valle, 2000 m alt., 11 Febr. 1949, Sparre 5639 (LIL) and 14 Febr. 1949, 5801 (LIL); Tafí del Valle, 2500 m alt., 20 Febr. 1924, Venturi 2944 (GH, LIL, US), Siambón, 1250 m alt., 11 Nov. 1925, 3650 (BAB) and 15 Nov. 1925, 3650 (CAS, LP) and Cumbre de Raco, 2000 m alt., 11 Nov. 1929, 10260 (MO, NY, S). *Trancas*: Boca de la quebrada de Gualinchay, Oct. 1915, Schreiter s. n. (LIL), Gualinchay a Mal Paso, 1200 m alt., 1 Dic. 1917, 12604 (MVM), Quebrada del Mal Paso, 2000 m alt., 1 Febr. 1927, Schreiter 5503 (LIL) and quebrada del Mal Paso, 2000 m alt., Dic. 1927, Schreiter 590a (LIL); Tapia, 750 m alt., 29 Agosto 1925, Venturi 3887 (BAB, CAS, GH-type, LP). *CATAMARCA*: 2000 m alt., 1938, Devoto 605 (BAF); 9 Febr. 1940, Adet s. n. (BAB). *Ambato*: El Clavillo, Dic. 1938, Devoto & Rial 1671 (BABosq) and 1388 (BABosq) and El Rodeo, 18 Dic. 1938, 1389 (BABosq), 1390 (BABosq), 2202 (BABosq) and 2203 (BABosq). *Andagalá*: Cerro Duraznos, Enero 1937, Job 1353 (LP); 20 Enero 1915 Jörgensen 991 (LIL), 11 Sept. 1915, 911 (CAS, GH, MO, US) and 1960 m alt., 10 Dic. 1915, Jörgensen 991 (LP); Quebrada de Musohaca, Oct. 1873, Schickendantz 293 (CORD, LP); Río Potrero, 1500 m alt., 31 Enero 1950, Vervoort 659 (LIL). *Capallán*: Huillapima, quebrada de Pomán, 24 Dic. 1909, Spegazzini s. n. (BAB) and 31 Dic. 1909, s. n. (BAB). *Capital*: Quebrada de Choya, Nov. 1872, Schickendantz 49 (CORD) and Oct. 1875, 89 (CORD). *Santa María*: Aconquija en el camino a Alto del Clavillo, 20 Sept. 1946, Hunziker 6806 (CORD).

18a. *Schinus gracilipes* var. *pilosus* Barkley, Brittonia 5: 180. 1944.

Small tree; branches velvety pilose, slender, not spinescent; leaves ovate, 2.5-8 cm long, 9-20 mm broad, obtuse at apex, regularly obscurely crenate, obtuse at the base, velvety pilose on the veins, otherwise sparsely pilose; inflorescence a contracted panicle about 1 cm long, pilose; bracts deltoid, mostly caducous, densely pilose; pedicels slender, velvety pilose, about 4 mm long; sepals deltoid, densely long-pilose, ciliate on the margin; petals ovate, about 1.5 mm long ciliate on the margin with long hairs.

Type: Argentina: Tucumán: Trancas: Pie de la Cuesta, 1700 m alt., Venturi 4173 in the United States National Herbarium.

Distribution: Argentina from Salta to Tucumán, mostly in the mountains.

Specimens examined: ARGENTINA: SALTA: Cafayate: Camino cues-
ta del Area a Trancas, Dic. 1896, Spegazzini s.n. (LP) and Enero 1897,
1338 (LP); Orán: Quebrada San Lorenzo, Nov. 1919, Hauman s.n.
(BA). TUCUMÁN: Chiglagasta: Río Cochuna, 1000 m alt., 3 Nov. 1930,
Schreiter 6461 (LIL, NY). Famaillá: Villa Nougués, 17 Sept. 1945,
Castellanos s.n. (BAFacC). Tafí: Siambón a quebrada del Matadero,
1200 m alt., 8 Die. 1888, Lillo 1163 (LIL, NY) and la Angostura, 1800
m alt., 24 Enero 1908, Lillo 7362 (LIL). Trancas: Pie de la Cuesta,
1700 m alt., 19 Abril 1926, Venturi 4173 (LIL, LP, US-type).

19. *Schinus velutinus* (Turez.) I. M. Johnston, Jour. Arnold Arb. 19: 256. 1938.

Duvaua velutina Turez. Bull. Soc. Nat. Mosc. **31** 1: 467. 1958.

Schinus chilensis March. Rev. Anac. 164, 1869.

Duvava Molle Bertero ex March. Rev. Anac. 164, in syn. 1869.

Schinus latifolius var. *tomentosus* Fenzl ex Engl. in Mart. Fl. Bras 12²: 389. 1876.

Small trees; branches brownish later becoming grayish-brown, moderately slender, velvety pilose; leaves ovate to oblong, obtuse, irregularly sinuate-dentate (often obscurely so), obtuse at the base, velvety pilose above and below, 2-7 cm long, 12-37 broad; inflorescence an expanded pseudoraceme, axillary or terminal, 2-5 cm long, velvety pilose; bracts deltoid, short-pilose on the dorsal surface, ciliate with short simple hairs; pedicels about 1 mm long, sparsely long-pilose below the abscission plate, glabrous above; sepals deltoid-ovate, subacute, glabrous except ciliate with very long simple hairs; petals ovate, obtuse, glabrous, about 2 to 2.5 mm long; fruit lavender, about 5 mm in diameter.

It seems probable that *Duvaua velutina* Pasq. Cat. Ort. Bot, Nap. 40 (1867) is this species.

This species is closely related to *Schinus latifolius*.

Type: not designated but it seems that *Bertero* s.n. from Quillota, Chile, Sept. 1829 should serve as the type.

Common name: Molle.

Distribution: Central Chile.

Specimens examined: CHILE: La Punta de Cortes, Julio 1828, Bertero 44 (G); ACONCAGUA: Quillota, 8 Oct. 1829, Bertero 964 (GH, NY), Quillota, Nov. 1829, 964 (F, G, L, MO) and Nov. 1829, Bertero s.n. (G); Petorea, Zapallar, 9 Oct. 1948, Kausel 2577 (LIL, SGOKausel) and Palos Quemados a Zapallar, 2577 (SGOKausel); entre Aguas Claras y Zapallar, 1000 m alt., 9 Oct. 1948, Looser 5633 (SGOLooser); Catemu, Sept. 1860, Philippi 376b (SGO); entre La Ligua y Los Molles, 22 Oct. 1914, Rose & Rose 19374 (NY). COLCHAGUA: San Fernando, 1858, Ochsenius s.n. (SGO); 1862, Philippi s.n. (G); CURICO: Los Queñes, 18 Enero 1941, Kausel 876 (SGOKausel). SAN FERNANDO: San Fernando, Philippi 376a (SGO). VALPARAÍSO: Sept. 1830, Arnott 320 (BM); Bridges s.n. (G); Oct. 1925, Claude-Joseph 3743 (US); Limache, 12 Oct. 1928, Garaventa s.n. (SGOLooser); Valparaíso, Oct. 1928, Günther & Buchtien s.n. (S); Zapallar, Sept. 1909, Yohow 1902 (SGOQF); Algarrobo, 22-25 Marzo 1951, Kausel 3222 (SGOKausel, SGOLooser); Cerro Huinca, 10 Oct. 1926, Looser 6 (SGOLooser), Quintero en matorrales xerófilos, 18 Febr. 1943, 5630 (SGOLooser), Limache, 18 Sept. 1924, 5638 (SGOLooser) and 18 Sept. 1923, 6540 (SGOLooser) and San Francisco de Limache, 11 Oct. 1926, 5645 (SGOLooser) and 18 Oct. 1827, Looser 5646 (SGOLooser); Curauma, Oct. 1883, Philippi 376e (LP); Zapallar, 7 Sept. 1908, Skottsberg s.n. (UPS); Las Torres, 22 Sept. 1917, Skottsberg & Skottsberg 1018 (F, NY, S); Viña del Mar, 27 Nov. 1935, West 3952 (GH, UC).

20. *Schinus Kauselii* Barkl., nov. spec.

Arbor parva; ramis non spinosis, breviter, pilosis; foliis coriaceis, truncatis ad basin apicemque, crenato-dentatis, puberulo-pilosis, 1.5-3 cm longis, 1-3 cm latis; petiolis 2-4 mm longis, desde puberulo-pilosis; pseudoracemis 1-3 cm longis; bracteis deltoideo-ovatis, subacutis, subglabris sed dense ciliolatis; sepalis deltoideo-ovalis, glabris sed sparse ciliolatis; petalis obovatis, obtusis, glabris; staminibus petalo aequalibus.

Shrub or small tree; branches slender, non-spinose, persistently short, velvety-pilose; the leaves thinly coriaceous, truncate at base and apex, crenulate-dentate on the margin, pilose-puberulent on both surfaces, 1.5 to 3 cm long, 1 to 3 cm broad, petiolate with petioles 2 to 4 mm long, densely pilose-puberulent; inflorescences pseudoracemes or often with two or three branches from near the base, the axis 1 to 3 cm long,

when branched the branches half as long; bracts 1 mm long, 1.5 mm broad, deltoid-ovate, subacute, more or less glabrous except densely pilose-ciliate; pedicels glabrous, 3 to 4 mm long; sepals deltoid-ovate, obtuse-subacute, .6 mm long, .8 mm wide, glabrous except sparsely pilose-ciliate; petals obovate, obtuse, 2.5 mm long, 1.2 broad; stamens equalling the petals in length, the anthers orbicular, .4 mm in diameter.

Type: Chile: Santiago: Refugio de Farellones, 1700 m alt., 5 Enero 1947, Kausel 2317 in LIL 259293.

This plant most closely resembles *Sch. montanus* and may prove to be only a variety of that species or it may be a hybrid between that species and *Sch. velutinus*, but from the specimens available it seems to the writer to be a distinct species.

Distribution: Central Chile.

Specimens examined: CHILE: ACONCAGUA: Río Blanco, 18 Enero 1941, Kausel 876 (SGOKausel). CURICO: Los Queñes, 18 Enero 1941, Kausel 877 (SGOKausel). SANTIAGO: Manzanita, 1700 m alt., 5 Enero 1947, Kausel 2317 (LIL-TYPE, SGOKausel); Refugio de Farallones, 1800 m alt., 5 Enero 1947, Looser 5151 (SGOLooser). TALCA: Cerrillos, Febrero 1879, Philippi 376c (SGO).

21. *Schinus latifolius* (Gillies) Engl. in Mart., Fl. Bras. **12²**: 389. 1876.

Litrea Molle Gay, Fl. Chile **2**: 45. 1846. Non L.

Duvava latifolia Gillies ex Lindl. Bot. Reg. **19**: pl. 1580. 1833.

Schinus dependens var. *latifolia* March. Rev. Anac. 164, in part. 1869.

Schinus chilensis var. *glabra* March. Rev. Anac. 164. 1869.

Schinus latifolius var. *glabra* Fenzl ex Engl. in Mart. Fl. Bras. **12²**: 389. 1876.

Mauria Schickendantzii Hieron. ex Engl. in Mart. Fl. Bras. **12²**: 389 in oyn. 1876.

Duvava dependens var. γ Hook. Bot. Misc. **3**: 176. 1883.

Duvava dependens var. *crenata* Arechaval. Anal. Mus. Nae. Montev. **3**: 300. 1901, pro parte.

Small tree; branches moderately slender, glabrous, dark colored; leaves coriaceous, glabrous, obtuse to subacute at the apex, irregularly sinuate-dentate, obtuse at the base, 3-5 cm long, 1-2.5 cm broad; petiole coarse, glabrous, 3-7 mm long; inflorescence-axis coarse, about 7 mm long very sparsely short-pilose; bracts deltoid, glabrous, except ciliate on the margin with simple hairs; pedicels about 2 mm long, very sparsely pilose; sepals deltoid, narrowly obtuse, glabrous except ciliate on the margin with simple hairs; petals narrowly ovate, truncate, glabrous, about 1.8 mm long; fruit lavender, about 5 mm in diameter.

Harwig 2451, *Kausel* 1877 and *Looser* 5156 appear somewhat similar to *Sch. montanus*,

Type: plate 1580 in Lindley's Bot. Reg. **19** for 1833 or Cuming 184.

Common names: Molle.

Distribution: Central Chile.

Specimens examined: CHILE: Gay s.n. (BM) and 1839, s.n. (NY); ACONCAGUA: Zapallar, 3 Sept. 1947, Hartweg 2451 (SGOKausel); Pa-pudo, 12 Febr. 1928, Looser 5639 (SGOLooser) and Punta Molles, 50 m alt., 15 Oct. 1948, Looser 5634 (SGOLooser); Catapilco, Sept. 1865, Philippi s.n. (SGO). COLCHAGUA: Hacienda Lolol, 450 m alt., 19 Febr. 1926, Kausel 1877 (SGOKausel). COQUIMBO: Cuesta de Cavilolen 30 Km s. o. de Illapel, 700 m alt., 20-24 Oct. 1941, Muñoz 2438 (SGO). MAULE: Constitución, Sept. 1890, Reiche s. n. (SGO). SANTIAGO: Oct. 1829, Gay 406 (BM); Talagante, 500 m alt., 23 Nov. 1929, Looser s. n. (R) and 3328 (LP, SGOLooser) and 19 Sept. 1935, 3329 (LP, SGOLooser); San Antonio, 15 Febr. 1925, 5641 (SGOLooser), Malvella, 8 Dic. 1930, 5642 (SGOLooser), and Cuesta de la Dormida, 1200 m alt., 5 Oct. 1930, Looser (SGOLooser); Melipilla, San Miguel, Oct. 1879, Philippi s.n. (SGO) and 376d (SGO); San Miguel, Oct. 1879, Spegazzini s. n. (IP) and 1329 (LP). VALPARAISO: in Gebüschen, 8 Oct. 1895, Buchtien s. n. and 1329 (LP); San Francisco de Limache, 200 m alt., 21 Dic. 1928, Garaventa 4 (SGOLooser); 1852, Gaudichaud 239 (G); Valparaíso, Oct. 1928, Günther & Buchtien s. n. (S); Curauma, Nov. 1926, Kausel 277 (LIL) and Algarrobo, 22-25 Marzo 1951, Kausel 3221 (SGOKausel, US); Cerro Huineca, 200 m alt., 11 Oct. 1926, Looser 3327 (SGOLooser), Quebrada Fundo Loreto, 18 Oct. 1927, 5635 (SGOLooser), Cerro Huineca, 27 Junio 1927, 5637 (SGOLooser), Limache, 2 Febr. 1926, 5636 (SGOLooser), Cerro Huineca, 27 Junio 1927, 5637 (SGOLooser), Limache, 19 Sept. 1927, 5643 (SGOGünckel, SGOLooser), and Limache, 11 Oct. 1926, Looser 5644 (SGOLooser); 1825, Macrae s. n. (G); 1876, Philippi s. n. (G); Villa Alemana, 8 Agosto 1943, Saelzer 1274 (SGOKausel).

22. *Schinus patagonicus* (Phil.) I. M. Johnston in Cabrera, Rev. Argent. Agron. **6**: 94. 1939.

Litrea patagonica Phil. Anal. Univ. Chile **23**: 451 & 462. 1863, *Duvava dependens* var. *patagonica* Phil. Anal. Univ. Chile **23**: 451. 1863.

Schinus crenatus Engl. Bot. Jahrb. 1: 423. 1881; Cabrera, Rev. Museo de La Plata (n.s.) 2: 15. 1938; Barkley, Brittonia 5: 181. 1944, non *Litrea crenata* Philippi, Linnaea 33: 39. 1864.

Litrea montana var. *patagonica* Philippi, Linnaea 33: 39. 1864.

Duvaua patagonica Philippi, Anal. Univ. Chile 84: 9. 1894.

Schinus montanus var. *patagonicus* Reiche, Anal. Univ. Chile 97: 61. 1897.

Shrub to 5 m high; branches light-colored, coarse, not spinescent, glabrous or very rarely sparsely pilose puberulent; leaves coriaceous, ovate, acute or subacute, rarely obtuse, entire or obscurely crenate, acute at the base 2.5-6 cm long, 1-2.5 cm broad, glabrous on midvein sometimes minutely puberulent; petiole 4-12 mm long, coarse, glabrous, or rarely minutely puberulent; inflorescence a coarse pseudoraceme, the axis sparsely pilose, about 1.3 cm long; bracts broadly deltoid, glabrate on the outer surface, ciliate on the margin with simple hairs; pedicels sparsely pilose below the abscission plate, glabrous above; sepals deltoid, glabrous on the dorsal surface, ciliate on the margin with simple hairs; petals ovate, truncate, glabrous, the margin irregular; fruit lavender, about 6 mm in diameter, lavender, glabrous or very finely and sparsely pilose.

It should be noted that there are two Cox specimens from Pampa de Patagones in the herbarium at Santiago de Chile, one is *Sch. O'Donellii* and the other of January 1863 marked "Type" is the present species.

Type: Argentina: Neuquén: Huilches: Maipú, Febr. 1887, Philippi s. n. in the Herbarium at Santiago de Chile.

Common names: Cabra, Laura, Litrecillo, Litre, Litro, Molle falso.

Distribution in southern Argentina from Mendoza to Chubut and in the adjacent mountains of Chile.

Specimens examined: ARGENTINA: 1900, Spegazzini 1323 (LP). MENDOZA: Maipú: Cordillera de Franco, 14 Enero 1887, Philippi 2165 (LP). NEUQUÉN: 2 Junio 1902, Asp 109 (BAB); Quetrihué, 9 Nov. 1940, Diem 91 (LP); Gruinde los Arules, 15 Febr. 1919, Hicken 42b (SI); Confluencia del Neuquén, Dic. 1899, Spegazzini 1365 (LP). Huilches: Parque Nacional Lanín, 22 Enero 1943, Pérez s. n. (BA). Lacars San Martín de los Andes, 6 Junio 1941, Descote 2336 (LIL); San Martín de los Andes, 17 Febr. 1919, Hicken 42 (SI); San Martín de los Andes, 10 Dic. 1935, Neumeyer 863 (BABosq), San Martín de los Andes, 21 Marzo 1936, 1480 (BABosq), San Martín de los Andes, 370 (BABosq), San Martín de los Andes, 10 Febr. 1936, 1609 (BABosq) and San Martín de los Andes, 21 Marzo 1936, Neumeyer 1478 (BABosq); San Martín de los Andes, 8 Enero 1945, O'Donell s. n. (LIL); arroyo el Córdoba

entre San Martín de los Andes y Traful, 13 Enero 1939, Pérez s. n. (BA, LIL) and Lago Lacar, 13 Enero 1939, s. n. (BA, LIL); Río Quilquihué cerca de San Martín de los Andes, 15 Marzo 1938, Scott y Birabén 723 (LP). Los Lagos: Isla Victoria, 31 Marzo 1946, de la Barba 1129 (LIL, S), El Cruce, Villa la Angostura, 13 Dic. 1946, 1204 (LIL), Laguna Linares, 12 Dic. 1946, 1225 (LIL), Lago Correntoso, 15 Dic. 1946, 1302 (LIL), Parque Nacional Nahuel Huapí, 15 Febr. 1946, 1305 (LIL), Arroyo Chiñurraco, 18 Dic. 1946, 1361 (LIL), Cascada Maipú, 29 Enero 1947, 1838 (LIL) and Arroyo Pedregoso, 10 Marzo 1947, de la Barba 2103 (LIL); subida cerro Córdoba, 10 Dic. 1944, Descote 2416 (LIL) and Isla Victoria, 12 Dic. 1944, Descote 2479 (LIL); Nahuel Huapí, 1936, Donat s. n. (SGOGunckel); Río Negro, 30 Enero 1938, Ferrovía s. n. (LIL); Lago Traful, Dic. 1937, Giacobbi 1622 (BABosq); Colonia Maipú, 6 Nov. 1940 Moloko (BABosq); San Carlos de Bariloche, 12 Feb. 1914, Muñiez y Rothkugel 151 (BAB); Brazo Rincón del Lago Nahuel Huapí, 3 Febr. 1940, Pérez s. n. (BA) and Punto Anchorena, Isla Victoria, Enero 1945, s. n. (BA); Cajón de Piedra Cujín Manzano, 800 m alt., 25 Oct. 1946, Perrone s. n. (BAParq) and Norte de la Isla Victoria, 13 Nov. 1946, s. n. (BAParq); Maipú, Febr. 1887, Philippi s. n. (SGO-TYPE); Isla Victoria, Dic. 1940, Pugno 1811 (BABosq); Villa traful, 31 Enero 1948, Quartino s. n. (LIL). Ñorquin: entre Copahué y Arroyo Hualcufer, 22 Dic. 1944, O'Donell 2151 (LIL). Picunche: Pino Hachado, Febr. 1920, Hauman s. n. (LP). Río NEGRO: 7 Febr. 1937, Covas 28 (LP); Río Limay, Marzo 1911, Hauman s. n. (BA); Puerto Blest, Enero 1930 Doello s. n. (BA). Bariloche: Arroyo Cascado Cerro Catedral, 30 Enero 1945, de la Barba 148 (LIL), Playa Bonita, 3 Febr. 1945, 195 (LIL), Arroyo Melgareja, 13 Febr. 1945, 196 (LIL), Lago Gutiérrez, 13 Febr. 1945, 238 (LIL), Laderas del Cerro Catedral San Carlos de Bariloche, 20 Febr. 1945, 278 (LIL), Lago Moreno, 23 Nov. 1945, 672 (LIL), Lago Moreno, 23 Nov. 1945, 673 (LIL), Lago Moreno, 23 Nov. 1945, 678 (LIL), Arroyo del Medio, 23 Nov. 1945, 699 (LIL), Piscicultura, 12 Dic. 1945, 762 (LIL), Lago Moreno, 23 Nov. 1945, 778 (LIL), Lago Moreno, 23 Nov. 1945, 799 (LIL), Arroyo Casa de Piedra, 18 Nov. 1945, 865 (LIL, U), Gruta Virgen de la Nieve, 18 Dic. 1945, 912 (LIL), Laguna Moscos, 31 Dic. 1946, 1424 (LIL) and Río Manso, 31 Dic. 1946, de la Barba 1419 (LIL); Cerro Lopes, 30 Enero 1934, Burkart 6122 (BA) and cerro Otto, 10 Febr. 1934, 6470 (BA, LP); Lago Espejo, 8 Febr. 1940, Cabrera 5995 (LP); 30 Enero 1938, Castellanos 22002 (BA) and Lago Guillermo, 11 Febr. 1938, s. n. (BA); Lago Guillermo, 11 Febr. 1938,

Ferrovía (LIL); Playa Bonita, Nahuel Huapí, 22 Dic. 1935, Frey s.n. (BA); Nahuel Huapí, Febr. 1910, Hauman 315 (BA); Bariloche, 16 Dic. 1944, Meyer 7309 (LIL), Cascadas Río Guillermo, 21 Dic. 1944, 7396 (LIL); Arroyo Cascada entre Bariloche a Catedral, 24 Dic. 1944, 7607 (LIL); San Carlos de Bariloche, 23 Dic. 1944, 7615 (LIL); San Carlos de Bariloche, 29 Dic. 1944, Meyer 7635 (LIL); Cerro Alto, 1400 m alt., 24 Dic. 1944 (LIL) and Cerro Catedral, 2 Enero 1945, Meyer 7718 (LIL); Bariloche, 800 m alt., 20 Oct. 1940, Neumeyer 320 (LP); Río Villegas, 29 Enero 1941, Pérez s.n. (BA), Lago Maxcardi, 7 Febr. 1940, s. n. (BA, LIL); Nahuel Huapí a Cerro López, 2-28 Enero 1945, s. n. (BA) and del Lago Mascardí a los ventisqueros del Tronador, 7 Febr. 1940, Pérez s. n. (BA, LIL); San Carlos de Bariloche, 13 Nov. 1948, Senn 4288 (US); Bariloche 1898, Spegazzini 1322 (LP); San Carlos de Bariloche, 15 Junio 1946, Teague s. n. (LIL). CHUBUT: Oct.-Dic. 1896, Bettfreund 1896 (LP); Los Rápidos del Río Futalenfú, 24 Enero 1945, Castellanos 160 (F) and s. n. (LIL); Arroyo de los Saltos, 4 Enero 1936, Lahitte s. n. (BAB) and Febr. 1937, s. n. (BAB); El Hoyo, 20 Nov. 1945, Meyer 9293 (LIL); Magano, 1889, Spegazzini 1320 (LP). CUSHAMEN: Cholila, Enero 1900, Illin 1302 (BAB); Camino a El Bolsón, 20 Nov. 1940, Kühnemann s. n. (BA); Lago Puelo, 10 Nov. 1945, Meyer 9292 (LIL) and 9294 (LIL) and Lago Epuyéu, 9 Nov. 1945, Meyer 9381 (LIL); Epuyéu, Febr. 1924, Muniez s. n. (BAF); Lago Puelo, 24 Enero 1941, Pérez s. n. (BA) and 13 Febr. 1940, s. n. (BA, LIL); Leleque, 13 Enero 1947, Soriano 2334 (SI). LANGUIÑEO: Lago Menéndez, 1 Febr. 1945, Castellanos s. n. (LIL); Frelen-Feca, Dic. 1899, Illin 41 (BA), Río Corcovado, Febr.-Marzo 1900, 402 (BAB), Río Corcovado, Febr. 1903, 47 (BAF, SI) and Río Corcovado, 22 Febr. 1901, Illín s. n. (CORD) and 145 (BAF, G); Corcovado, Krapovickas 4024 (BAB); Lago Rivadavia, 13 Dic. 1940, Kühnemann s. n. (BA), Lago Futalaufquen, 7 Dic. 1940, s. n. (BA) and camino a El Bolsón, 21 Nov. 1940, Kühnemann s. n. (BA); Colonia 16 de Octubre, Enero 1937, Lahitte s. n. (BAB); Cascada de Futalaufquen, 510 m alt., 11 Dic. 1945, Meyer 9703 (LIL) and Trevelín, 5 Nov. 1945, 9276 (LIL); Lago Futalaufquen, Febr. 1944, Pérez s. n. (BA); Futalaufquen, La Túnica, 500 m alt., 22 Enero 1945, Rohmeder 47 (LIL); Lago Futalaufquen, 3 Marzo 1928, Scott & Birabén 614 (LP); Estancia Caridad, 2 Febr. 1945, Soriano 2566 (SI).

CHILE: LINARES: Termas de Longaví, 19 Enero 1938, Castellanos s. n. (BA). MAGALLANES: Pampa de Patagones, Enero 1863, Cox. s. n.

(SGO-TYPE of *Lithrea montana* var. *patagónica*) MALLECO: Mabuelbuté, Enero 1909, Reiche s. n. (SGO). MAULE: Lantaro, Espinosa s. n. (SGO); La Rinconada de Constitución, Sept. 1908, Reiche s. n. (LP, SGO). NUBLE: Cordillera de Chillán, Dic. 1855, Germain s. n. (SGO). VALDIVIA: 1854, Lechler 2955 (K); camino al Lago Pirehueico, 21 Enero 1947, Pérez s. n. (BA).

22a. *Schinus patagonicus* var. *crenuloides* (Barkl.) Barkl. nov. comb.

Schinus mortanus var. *crenuloides* Barkley, Brittonia 5 : 183. 1944.

Shrub; branches heavy, dark, glabrous, not spinescent; leaves coriaceous, glabrous, ovate, acute, crenate-serrate, the base obtuse, 1.5-5 cm long 9-26 mm broad; pedicels coarse, glabrous, 2-8 mm long; inflorescence axis glabrous, coarse, about 7 mm long, a contracted pseudoraceme; bracts deltoid, glabrous except ciliate with simple hairs; pedicels glabrous, about 3 mm long; sepals deltoid-ovate, subacute, glabrous except ciliate with short simple hairs; petals narrowly ovate, truncate, glabrous.

Type: Chile: Cautín: Temuco, 118 m alt., 12 Oct. 1933, Montero 1278 in the Gray Herbarium of Harvard University.

This variety, intermediate between *Sch. patagonicus* and *Sch. montanus*, seems better associated with the former species.

Common name: Litrecillo.

Distribution: south central Chile.

Specimens examined: CHILE: Cordillera de la Costa, 900 m alt., 6 Nov. 1896, Dusén s. n. (G, S). CAUTÍN: Temuco, Maqueleur, 13 Junio 1906, Midleton s. n. (G) and 13 Oct. 1906, s. n. (G); 118 m alt., 12 Oct. 1933, Montero 1278 (GH-TYPE).

23. *Schinus montanus* (Philippi) Engl. Bot. Jahrb. 1: 422. 1881.

Litrea montana Philippi, Linnaea 33 : 38. 1964.

Shrub to 3 m high; branches light, glabrous, not spinescent; leaves coriaceous, ovate to orbicular, obtuse at the apex, entire to more or less obscurely crenate-serrate, the base obtuse to subcordate, glabrous; petioles coarse, glabrous, 2-10 mm long; inflorescence a coarse pseudoraceme, about 15-20 mm long, glabrous; bracts deltoid, glabrate, ciliate

on the margin; pedicels about 3 mm long, (or in fruit 4 mm long) glabrous; sepals deltoid-ovate, subacute, glabrous except densely ciliate with simple hairs on the margin; petals narrowly ovate, truncate, glabrous; fruit about 6 mm in diameter.

Type: Chile: Santiago: 1876, Philippi s.n.

While this is a remarkably uniform species, a few specimens are atypical, *Kausel & Barkley 21Ch054* and *21Ch055* and *Looser 56F2* have smaller leaves looking almost like very coriaceous leaves of *Sch. patagonicus*. *Reiche* (Abril 1902) closely approaches *Sch. latifolius* in appearance. *Looser 5624* is a prostrate form.

Distribution: Central Chile.

Specimens examined: CHILE: Gay s.n. (BM); Cuesta del Prado, Cordillera de la Costa, 12 Oct. 1932, Pirión 1735 (GH). ACONCAGUA: Los Andes, Río Blanco, 24 Sept. 1923, Barros V. 1106 (SGOGunckel). ATACAMA: Salto de Agua, Nov. 1962, Philippi 377a (LP). COLCHAGUA: Puente Cimbra, 700 m alt., 10 Nov. 1929, Looser 5648 (SGOLooser). SANTIAGO: Juncal, Uspallata Pass, 2200 m alt., 26 Enero 1903, Buchtien 1204 (BAF) and s.n. (L); El Volcán, 1500 m alt., 29 Dic. 1935, Cabrera 3464 (F, LP); 16 Nov. 1918, Claude-Joseph 675 (US); 1856-1857, Germain s.n. (G); Salta del Ramón im Ramón-Tal Hochkordillera, 1550 m alt., Oct. 1933, Grandjot & Grandjot s.n. (GII); Río Blanco y Juncal, 1600 m alt., 1 Nov. 1928, Günther & Buchtien s.n. (S); San Gabriel, 1300 m alt., 12 Enero 1945, Kausel 1651 (SGO, SGOKausel); Valle del Yeso, Manzanito, 1700 m alt., 12 Oct. 1945, Kausel 1677 (LIL, SGOKausel) and 1677a (SGOKausel), Santa Cruz, Hacienda Lolol, 450 m alt., 19 Febr. 1936, 1877 (LIL), Refugio Farellones, Manzanito, 1700 m alt., 5 Enero 1947, 2323 (LIL, SGOKausel), Valle del Maipo, San Gabriel, 1300 m alt., 12 Oct. 1945, 1651 (LIL) and Valle del Yeso o Maipo, Manzanito, 1700 m alt., 12 Oct. 1945, Kausel 1677a (LIL); Casas de Piedra de la Quebrada de Piñolén, 1550 m alt., 11 Marzo 1951, Kausel y Barkley 21Ch042 (SGOKausel), 1650 m alt., 21Ch045 (SGOKausel), 21Ch047 (SGOKausel) and 21Ch048 (SGOKausel), and 1600 m alt., 21Ch050 (SGOKausel), 21Ch051 (SGOKausel), 21Ch052 (SGOKausel) and 21Ch053 (SGOKausel), 1600 m alt., 21Ch054 (SGOKausel) and Kausel y Barkley 21Ch055 (SGOKausel); Refugio de Farallones, 1500 m alt., 5 Enero 1947, Looser 5152 (SGOLooser), Refugio de Leguillos, 2200 m alt., 11-12 Oct. 1936, 5624 (SGOLooser), Altos de Jahuel, 15 Dic. 1929, 5647 (SGOLooser), El Volcán, 1500 m alt., 15 Nov.

1925, 5650 (SGOLooser), Peñolén, 1800 m alt., 10 Enero 1927, 5651 (SGOLooser), Cerro de Roble, 1100-1300 m alt., 6 Nov. 1927, 5652 (SGO Looser) and Peñolén, 1600 m alt., 28 Oct. 1928, Looser 5662 (SGO Looser), Philippi 892 (G-TYPE collection of *Litrean montanus* Phil.), San Ramón, 5 Nov. 1882, 377a (SGO), Salto de Agua, Nov. 1862, 377a (SGO), Cordillera de la Dehesa, Nov. 1861, 377b (SGO), 1868, s.n. (CORD) and 1876, Philippi s.n. (G); Auleo, Abril 1902, Reiche s.n. (SGO); San Ramón, 5 Nov. 1882, Spegazzini s.n. (LP).

Subgenus **EUSCHINUS** Barkley, Brittonia 5: 184. 1944.

Section **EUSCHINUS** March. Rev. Anac. 163. 1869.

Unarmed shrub and trees having usually pinnately compound leaves; inflorescences large panicles to (rarely) pseudoracemes. Argentina to Mexico.

Type Species: *Schinus Molle* L. Sp. Pl. 1: 389. 1759.

24. *Schinus Pearcei* Engl. Bot. Jahrb. 1: 423. 1881.

Schinus diversifolius Rusby, Mem. Torrey Bot. Club 4: 206. 1890.

Shrub or small tree to 6 m tall; branches slender, glabrate (microscopically sparsely puberulent), much branched; leaves simple to imparipinnately compound, lanceolate, obtuse, very sparsely puberulent, entire, crenate-serrate, or lobed, cuneate at the base, 1.5-6 cm long, long-petiolate; petiole 3-15 mm long, sparsely puberulent, narrowly winged by a continuation of the lamina; compound leaves with 3-11 leaflets which are lanceolate, obtuse, very sparsely puberulent, entire, crenate-serrate, or lobed, cuneate at the base, 7-25 mm long, sessile, the rachis-segments 3-10 mm long, sparsely puberulent, winged by a continuation of the lamina of the leaflets, the lateral leaflets opposite, subopposite, or alternate, the petiole sparsely puberulent, 4-20 mm long, narrowly alate with a continuation of the lamina of the lowermost leaflets; inflorescence a little-branched panicle, terminal or axillary, 1-7 mm long, puberulent; bracts deltoid, puberulent, ciliate on the margin with simple hairs; pedicels about 2 mm long, puberulent below the abscission plate, glabrous above; sepals ovate, obtuse, very sparsely puberulent, ciliate on

the margin with simple hairs; petals ovate, obtuse, glabrous; anthers ovate; fruits lavender-red, about 5 mm in diameter.

Type: Perú: Orubomba, Pearce s. n. in the Royal Botanic Gardens Herbarium, Kew.

Common name: Terebinto.

Distribution: In the mountains of western Bolivia and adjacent Perú.

Specimens examined: PERU: Entre Caycay y San Salvador, Junio 1865, Raimondi 1325a (LIMA) and 1325b (LIMA). APURIMAC: Andahuaylas, Talavera, 2850 m alt., Vargas 8814 (CuzeoV); 1909-1914 Weberbauer 5853 (NY, S). Cuzco: Ollantaytambo, 3000 m alt., 17 Mayo 1915, Cook & Gilbert 773 (US); "Chile", Gay s. n. (BM); Hacienda Fanceac, 2760 m alt., 10 Sept. 1928, Herrera 2106 (US); Urubamba Valley, 300 m alt., Agosto 1928, 2089 (F, US) and 10 Agosto 1928, Herrera 2080 (F, US); Quispicanchi, Huambutio, 3000 m alt., Julio 1950, Marín 2281 (LIL); Río Chaupimayo, Mayo 1937, Soukup 587 (F); Calca, Calca 3000 m alt., Enero 1938, Vargas 956 (CuzeoV), Quapicanchis, Huambutio, 3000 m alt., 13 Abril 1939, 1532 (CuzeoV) and Urubamba, Pumachaca, 2900 m alt., 18 Enero 1949, Vargas 7608 (LIL, CuzeoV); Calca, 3200 m alt., 20 Oct. 1936, West 8075 (GH, UC). BOLIVIA: COCHABAMBA: Cochabamba, 1891, Bang 923 (F, G, GH, MO, MICH, NY TYPE of *Schinus diversifolius* Rusby, UPS); Cochabamba, 2560 m alt., Marzo 1940, Cárdenas 2178 (LP).

25. *Schinus Molle* L. Sp. Pl. 1: 388. 1753. Non Hort. ex Engl. in DC. (cfr. Johnston Jour. Arn. Arb. 19: 255. 1938).

Schinus Huigan Molina, Saggio sullo storia naturale dei Chili 169. 1783

Schinus Huygan Molina, Saggio sullo storia naturale dei Chili, 355. 1783.

Schinus Molle var. *Huygan* March. Rev. Anac. 164. 1869.

Schinus Molle var. *argentifolius* March. Rev. Anac. 163. 1869.

Trees; branches many, slender, brownish, minutely and sparsely puberulent at first but appearing glabrate; leaves imparipinnately compound, membranaceous or thickly membranaceous, 10-30 cm long, glabrous or very sparsely and minutely puberulent, leaflets opposite, subopposite, or alternate on the rachis, 19-41, lanceolate, 8 mm long acuminate or rarely acute, the tip usually curved, serrate, rarely entire, cuneate to obtuse at base, sessile, slightly darker above, the rachis segments

ancho 2cm?

4-11 mm long, subulate, glabrous; petiole 2-3 cm long, not alate, very sparsely and minutely puberulent; inflorescences terminal thyrses and much branched panicles axillary to the uppermost leaves, each 8-15 cm long, minutely puberulent; bracts deltoid, very sparsely and minutely puberulent on the dorsal surface, sparsely ciliate on the margin with simple hairs, caducous; pedicels about 2 mm long; slender, puberulent below the abscission plate, glabrous above; sepals half-orbicular, glabrous on the outer surface, sparsely ciliate with simple trichomes; petals narrowly ovate, truncate, glabrous, about 2 mm long; anthers oblong; fruit lavender-pink, about 7 mm in diameter.

Type: In the Linnean Herbarium.

The species is comparatively little known, not being widely cultivated in contrast to the variety *areira*.

Common names: Anacahuita, Aguaribay, Aguaribay-Pimiento, Arbol de la pimienta, Bálsamo, Chichita, Chichita aroeira, Chichita brasa, Chichita brava, Chichita pendula, Chichita sauce, Curanguay, Gualeguay, Molle, Molle lechoso, Pimentero, Pimiento del diablo, Sauce, Terebinto.

Distribution: From southern Brazil, Uruguay, Paraguay and northern Argentina.

Specimens examined: BRAZIL: Nietheroy, Rohan s. n. (R); Saint Hilaire 1765 (BM); Sello s. n. (NY, S), 1782 (G, S), 2154 (LISU), 2998 (LISU) and 3712 (S). PARANÁ: Río Capinzal, 5 Junio 1911, Dussen 11857 (S) and 27 Febr. 1916, 17811 (G, S). RÍO DE JANEIRO: 10 Sept. 1863, Glaziou 218 (R) and 17 Sept. 1872, 5806 (C, S). RÍO GRANDE DO SUL: 500 m alt., 20 Sept. 1905, Bornmüller 567 (=58) (G, U) and Belén Velho, 31 Oct. 1897, Czermak & Reineck 90 (G) and P. Allegre, Nov. 1898, 711 (G); São Leopoldo, 1940, Eugenio 191 (NY); Monte negro, Pareci Novo, 19 Sept. 1945, Henz 29600 (U) and Henz & Rambo 29600 (LIL); Morro da Gloria, P. Allegre, 10 Oct. 1945, Henz & Rambo s. n. (LIL); Porto Alegre, 19 Mayo 1893, Malme 818f (S) and 29 Mayo 1893, 818f (S), Porto Alegre, Gloria, 28 Nov. 1901, 595 (S) and 9 Dic. 1901, 595a (S); Morro Sapucaia, 29 Enero 1948, Palacios & Cuezzo 501 (LIL); Río Pardo, 10 Oct. 1948, 970 (LIL) and Porto Alegre, Tristeza, 3 Oct. 1948, Palacios & Cuezzo 687 (LIL); Porto Alegre, Morro da Gloria, 16 Sept. 1932, Rambo 13 (SP), Quaraí, Estancia do Jaraú, 26 Dic. 1944, 26024 (LIL) and 14 Enero 1945, 26024 (LIL), Porto Alegre, Morro da Gloria, 10 Oct. 1945, 29258 (S), 5 Sept. 1945,

29531 (LIL), Morro Sapucaia, 4 Sept. 1948, 37508 (LIL), Porto Alegre, 1 Oct. 1948, 38856 (LIL), Sapucaia, 29 Nov. 1948, 38386 (LIL), Morro do Osso prope Porto Alegre, 21 Oct. 1949, 44016 (LIL), Estação Azevedo, 5 Sept. 1949, 43256 (LIL), San Leopoldo, 17 Oct. 1949, 43920 (LIL), Viamão, 2 Nov. 1949, 44195 (LIL) and Itacolumú prope Gravataí, 11 Enero 1950, Rambo 45300 (LIL); Belén Velho, Nov. 1897, Reineck & Czermak 142 (BA, MG, S); San Leopoldo, 20 m alt., 28 Oct. 1946, Ritter 35313 (S); 1842, Saint Hilaire (BM); Río Pardo, Sello s.n. (LISU); 1941, Vianna 154 (RB).

URUGUAY: ARTIGAS: Chiflero, 100 m alt., 24 Julio 1934, Herter 1377d (U); RIVERA: Galga 250 m alt., 24 Dic. 1933, Herter 1377c (G); SALTO: Salto Grande, Dic. 1924, Schröder s.n. (MVM). TACUAREMBÓ: Valle Edén, 3 Febr. 1947, Rosengurtt B-4976 (LIL, S); TREINTA Y TRES: Carajá del Olimar a dos leguas de Santa Clara, 10 Oct. 1945, Rosengurtt B-4851 (LIL).

PARAGUAY: ENCARNACIÓN: Mboccae, 130 m alt., 21 Sept. 1949, Bertoni 4463 (LIL); Trinidad, 7 Julio 1945, Rojas 10837A (LIL); Encarnación, Enero 1944, Pavetti & Rojas s.n. (LP).

ARGENTINA: JUJUY: *Tilcara*: Quebrada Juelle, 2500 m alt., 21 Febr. 1901, Claren 17731 (CORD). SALTA: *Cachi*: Campos de Cachi, 7 Febr. 1943, Castellanos s.n. (BA). *Guachipas*: Quebrada de las Conchas, 14 Agosto 1936, Cabrera 3749 (NY). *Rosario de Lerma*: Gólgota, 2000 m alt., 17 Enero 1941, Meyer 3849 (LIL). TUCUMÁN: *Capital*: Quinta Lillo, 26 Oct. 1940, Borsini s.n. (LIL); 10 Oct. 1906, Lillo 5204 (LIL); 2 Enero 1940, Meyer 3124 (LIL); Parque 9 de Julio, 450 m alt., 17 Oct. 1923, Schreiter 1139 (LIL); Río Salí, 450 m alt., 24 Sept. 1923, Venturi 2063 (BA, S) and cerca del río Salí, 450 m alt., 9 Nov. 1924, 2063e (LIL). MISIONES: Caá guazú, Barriero 921 (BABosq); Dennis s.n. (LIL). *Apóstoles*: 27 Enero 1926, Clos 1962 (BAB, LIL); Pueblo, 8 Nov. 1944, Ibarrola 1129 (LIL); Arroyo San José, 27 Dic. 1944, Sesmero 247 (LIL) and Azara, 31 Enero 1945, 350 (LIL); San José, 7 Dic. 1946, Schwarz 3538 (LIL). *Cainguas*: Oro Verde, 28 Agosto 1950, Schwarz 10730 (LIL); Puerto Rico, 17 Oct. 1947, Schwindt 437 (LIL, BEL), Chapá, 28 Julio 1948, 672 (LIL); Ruta 14 Km 252, 395 m alt., 14 Febr. 1950, 3009 (LIL) and Ruta 205, 240 m alt., 9 Junio 1950, Schwindt 4486 (LIL). *Candelaria*: 15 Nov. 1896, Alboff 18 (LP); Candelaria, Oct. 1939, Goytia s.n. (BAB); Loreto, 31 Agosto 1930, Grüner 335 (LP, NY); Santa Ana, Agosto 1901, de Llamas 147 (BAF, G) and 148, Santa Ana, 1901, 723 pr. p. (G) and 906 (G) and Santa

Ana, 2 Die. 1904, s. n. (BAB); Loreto, 210 m alt., 23 Oct. 1944, Montes 248 (LIL), Loreto, 200 m alt., 16 Abril 1946, 2149 (S) and Loreto, 28 Oct. 1947, Montes 5400 (BA); Santa Ana, 16 Nov. 1912, Rodríguez s. n. (SI) and 17771 (LIL, NY); Santa Ana, 9 Nov. 1944, Sesmero 160 (LIL); Santa Ana, 1 Oct. 1945, Schwarz 1317 (LIL, U) and Santa María, 30 Agosto 1946, 3269 (LIL); Santa Ana, Spegazzini 1399 (LP) and Enero 1907, 1398 (LP) and s. n. (G); Santa Ana, 22 Junio 1909, Venturi 95 (LIL). *Capital*: Posadas, 26 Agosto 1945, Bertoni 1832 (LIL, U); Posadas, 2 Dic. 1913, Curran s.n. (BAB, LIL) and Posadas, 50-60 m alt., 3-6 Dic. 1913, 37 (NY); La Granja de Posadas, 24 Nov. 1907, Ekman 1958 (S); Posadas, Marzo 1907, Fanqueanse s.n. (BAB); Posadas, 16 Sept. 1900, Gerling s.n. (BA) and 26 Sept. 1900, s. n. (BA) and 394 (BAB); Posadas, 17 Mayo 1930, Rodríguez 235 (BAB); Posadas, 10 Enero 1907, Spegazzini s.n. (BAB). *Concepción*: G. de la Sierra, 12 Dic. 1946, Schwarz 3600 (LIL). *Iguazú*: El Dorado, 160 m alt., 4 Oct. 1949, Schwindt 2175 (LIL) and Victoria, 170 m alt., 12 Nov. 1949, 2838 (LIL). *San Ignacio*: 8 Febr. 1947 Montes s.n. (BA); San Ignacio, 29 Sept. 1913, Quiroga s.n. (BA); San Ignacio, 31 Agosto 1945, Schwarz 1190 (LIL, C), Gobernador Roca, 8 Sept. 1945, 1230 (LIL), "Arroyo Yobebiry", 600 m alt., 20 Oct. 1945, 1278 (LIL), Arroyo Anta, 17 Dic. 1945, 1675 (LIL, U), Santo Pipó, 3 Oct. 1947, 4875 (LIL), Santo Pipó, 20 Oct. 1947, 4982 (LIL), Gobernador Roca, 20 Nov. 1947, 5211 (LIL) And Santo Pipó, 27 Sept. 1948, Schwarz 6178 (LIL). *San Pedro*: Campo Cumprido, 22 Nov. 1945, Bertoni 2099 (LIL); Fraerán a San Pedro, 550 m alt., 15 Abril 1950, Schwindt 3919 (LIL). CORRIENTES: *Saladas*: Colonia Cabral, 15 Dic. 1949, Schwarz 9163 (LIL). *San Martín*: 8 Nov. 1936, Burkart s.n. (LP, SI); La Cruz, 7 Nov. 1936, Parodi 12481 (LP). *San Roque*: M. P. Mantilla, 11 Mayo 1945, Ibarrola 2929 (LIL). *Santo Tomé*: Santo Tomé, 26 Nov. 1947, Cozzo 25M (BA). ENTRE RÍOS: *Capital*: Paraná, 23 Dic. 1946, Terrible 612 (LIL). *Concordia*: Río Uruguay, Salto Grande, 5 Febr. 1931, Castellanos s. n. (BA). CÓRDOBA: *Capital*: Puesto del Paraíso, 31 Mayo 1896, Stuckert s. n. (CORD), Altos Sud, 20 Sept. 1899, 7414 (CORD), Altos Sud, 12 Sept. 1898, 5494 (CORD), Altos Sud, 10 Oct. 1898, 4662 (CORD) and Altos Sud, 20 Oct. 1899, Stuckert 7413 (CORD). *Río 1º*: Estancia San Teodoro, 18 Febr. 1899, Stuckert 6484 (CORD). *Santa María*: Alta Gracia, 600 m alt., 14 Enero 1940, Hunziker 649 (BA). BUENOS AIRES: *Capital Federal*: (Cult. ?) 10 Nov. 1941, Incarnato 5^a (LIL).

25a. *Schinus Molle* var. *Areira* (L.) DC. Prodr. 2: 74. 1825.

Schinus Areira L. Sp. Pl. 389. 1753.

Schinus bituminoides Salisb. Prodr. Stir. Hort. Chap. All. Vig. 171. 1796.

Tree to 10 meters; branches slender, often drooping, brownish at first, later gray; leaves imparipinnately compound with 17 to 35 leaflets, glabrous or with a few pilose hairs on the rachis or rarely puberulent; leaflets coriaceous, lanceolate, entire or less often irregularly or regularly serrulate, mucronate acute, obtusish at base, 1.5 to 5 cm long, 2 to 10 mm broad; inflorescence a terminal thyrsus 6 to 30 cm long, glabrous or rarely puberulent; pedicels 1 to 2 mm long, glabrous; sepals ovate, obtuse, glabrous except short-pilose-ciliate; petals obovate, obtuse, entire, glabrous, 2.5 mm long, 1 mm wide; stamens with filaments 1.5 mm long, anthers ovate .4 mm long; fruit lavender, glabrous, 5 mm long, 6 mm broad and 5 mm thick.

Type: in the Linnean Herbarium.

Since the variety is much more commonly planted as an ornamental, it is therefore much better known than the species. It differs from the species in having more leaflets which are coriaceous, smaller, entire or more finely serrate, and are mucronate-acute rather than acuminate.

Common names: Aguaribay, Aguaribay pimiento, Aguacibay, Molle, Molle de Bolivia, Pepper tree, Peruvian pepper, Pimentón, Pimiento leña, Piero, Poivrier d'Amerique, Quebracho colorado, Terebinto, Trevinto.

Distribution: originally probably from Bolivia, southern Brazil, Paraguay and northern Argentina, but now growing established in most warm temperate regions of the world having very early been distributed by the Spanish colonists as spice producing ornamentals, so that now they may be very common as is the case in many parts of Mexico where in the present landscape they would seem to be native.

Specimen examined: UNITED STATES OF AMERICA: ARIZONA: Papago Reservation, 3 Oct. 1900, Griffiths 1663 (NY).

MEXICO: 1833, Andrieux s.n. (G); Hartweg 78 (G, L) and April 1839, s. n. (G); Temascaltepec, 1 Oct. 1933, Hinton 3125 (NY) and 1325 (NY); Techuacan, 1841, Liebman 290 (C); Uhde 1154 (LISU). CHIAPAS: between Mazapa & Motozintha, 1200 m alt., 19 Julio 1941, Matuda 4815 (NY). GUERRERO: Junio 1912, Salazar s.n. (NY). MÉXICO: 30 Abril 1865, Bourgeau 93 (G, L). OAXACA: Barranquillas do Xochi-

milco en el Valle de Oaxaca, 18 Febr. 1937, Conzatti 5206 (NY) and 5207 (NY); 1842, Franco s. n. (G); 1842, Ghiesbrecht s. n. (L); 1500 m alt., 23 Oct. 1894, Smith 842 (NY). PUEBLA: Acapulco, 1841, Liebmann 291 (C) and s. n. (NY); Laguna Chapulco, 14 Enero 1909, Nicolás s. n. (C, L). SAN LUIS POTOSÍ: 1848-1849, Gregg 569 (NY); 1879, Schaffner 456 (C); 1879, Vigener 456 (NY). TAMAULIPAS: Entre Tampico y Real del Monte, Berlandier 315 (L) and Mayo 1827, s. n. (G). VERACRUZ: Orizaba, 1855, Müller 530 (NY); Mirador, 3000-3800 m alt., Sartorius 15 (CORD).

COLOMBIA: Triana s. n. (BOG). ANTIOQUÍA: Medellín, 1500 m alt., 20 Nov. 1930, Archer 734 (MEDA); Medellín, 5 Marzo 1927, Toro 27 (MEDA, NY). BOYACA: Sachica, Hacienda E. Oival, 2200 m alt., Marzo 1941, Rangel 133 (BOG). CUNDINAMARCA: Bogotá, 10 Oct. 1908; Apollinaire s. n. (G). NARIÑO: Andes de Pasto, Jameson 468 (G).

ECUADOR: Jameson s. n. (W) and middle region of the Andes, 2000-2500 m alt., 1847, 468 (G); 1857-1859, Spruce 5051 (C, G, NY, S). CARCHI: El Duende, 2450 m alt., 31 Julio 1948, García 13095 (BOG). CHIMBORAZO: Sibambe, 2500 m alt., 28 Enero 1945, Fosberg & Giler 22610 (BEL); Riobamba, Mile 45 (NY); Riobamba, 2600 m alt., Rimbach 692 (S); Río Chibungo, 20 Marzo 1934, Schimpff 912 (G). PI-CHINCHA: Guayllabamba River, 9 Nov. 1939, Haught 2925 (LIL, NY). TUNGURAHUA: Ambato, Dic. 1918, Pachano 71 (NY).

PERU: Dombey 882 (G, L, LIL). AREQUIPA: Arequipa, 17 Sept. 1938, Eyerdam & Beetle 22178 (G) and Quequena, 2400 m alt., 17 Sept. 1938, 22181 (G). CUZCO: Calea, Hacienda Oreo, 17-19 Mayo 1934, Hammarlund 584 (NY, S); Oropesa "Huambutio", 3200-3400 m alt., Pennell 14195 (NY); Anta, Limbatamba, 2500 m alt., 7 Marzo 1937, Vargas 349 (CuzeoV) and s. n. (SGOGunckel); Yura, 2550 m alt., 10 Agosto 1901, Williams 2555 (NY). HUANUCO: 1787, Ruiz & Pavón s. n. (G). LIMA: Cajatambo, Churín, 2100-2200 m alt., 21 Julio 1949, Ferrerya 6159 (LIMALM); Matucana, 2600 m alt., 12 Abril-3 Mayo 1922, Macbride & Featherstone 243 (G); Chosica, 1000 m alt., 9 Julio 1921, Rutten 890 (U).

CHILE: Julio 1829, Bertero s. n. (L). ATACAMA: Caldera, 21 Febr. 1939, Beetle 26131 (G). COQUIMBO: Ovalle, La Chimba, 200 m alt., 20 Julio 1948, Jiles 663 (LIL) and Tongon, Quebrada Salinas 22 Enero 1950, 1652 (LIL). SANTIAGO: Santiago, 1929, Reszczynski 1861 (SGOQF). TARAPACA: Proagua, Miñe Miñe, 1600 m alt., 14 Febr. 1948, Sudzuki 283 (SGO). VALPARAISO: Valparaíso, Junio 1885, Rusby 1214 (NY).

BOLIVIA: Huaricana, 2800 m alt., 5 Agosto 1906, Buchtien 57 (LIL) and Cotaña, Sept. 1911, 6066 (SP); 300-3800 m alt., Kuntze s.n. (NY); Capi, Marzo 1890, Bang 770 (F, G, GH, MO, NY) and 771 (F, G, GH, MO, NY). COCHABAMBA: Oct. 1921, Shepard 264 (NY); Totora, Tío Charuano, 2000 m alt., 28 Febr. 1920, Steinbach 3995 (LIL, NY) and Totora, 2800 m alt., 5 Nov. 1928, 8631 (BA, LIL, NY, S). LA PAZ: Cota; a near Ilinani, 2450 m alt., Nov. 1911, Buchtien s.n. (L, S) and 176 (G); Febr.-Marzo 1933, Doello s.n. (BA). Larecaja 2690 m alt., 9 Enero 1858, Mandón 766 (G, GH, NY, S). TARIJA: 15 Febr. 1902, Fries 1121 (S) and 19 Enero 1902, 1121a (S); 28 Mayo 1873, Lorentz & Hieronymus 705 (CORD) and 1033 (CORD, G, S).

BRAZIL: Sello s.n. (LISU). RÍO GRANDE DO SUL: Rambo 43256 (LIL).

PARAGUAY: ASUNCIÓN: Sept. 1949, Rojas 14209 (LIL). ENCARNACIÓN: Alto Paraná near Jesús, Enero 1885-1895, Hassler 323 (G); Alto Paraná, Enero 1944, Rojas 10837 (LIL) and 10837a (LIL).

URUGUAY: Montes ribereños, Arechavaleta 1467 (CORD). MONTEVIDEO: Enero 1878, Arechavaleta s.n. (LP). PAYSANDÚ: Chapiuy: Orlillas del Río Uruguay cerca Santa Sofía, 19 Enero 1942, Rosengurtt B3654 (LIL). TACUAREMBÓ: Sierras de Tambores, 1891, Arechavaleta s.n. (CORD). TREINTA Y TRES: Rosengurtt B4851e (LIL).

ARGENTINA: JUJUY: Enero 1903, Soto 13 (BAF) and Río Grande, Nov. 1903, s.n. (BAF). Capital: Yala, 16 Mayo 1948, Sotelo 2013 (LIL). HUMAHUACA: Humahuaca, 2931 m alt., 7 Febr. 1941, Hunziker 1363 (CORD, NY). LEDESMA: Sierra de Calilegua, 800 m alt., 13 Oct. 1927, Venturi (LIL). TILCARA: Maimará, 2200 m alt., 23 Enero 1906, Budín 34 (LIL) and Maimará 2232 m alt., 10 Enero 1912, s.n. (LIL, SI); Tilcara, 26 Enero 1943, Cabrera 7654 (LP); Tilcara, 21 Julio 1938, Clos 6566 (BAB); Maimará, 15 Junio 1873, Hieronymus s.n. (UPS); Maimará, 13-15 Abril 1873, Hieronymus & Lorentz 749 (G); Maimará, 13-15 Abril 1873, Lorentz & Hieronymus 719 (CORD) and s.n. (CORD, G); entre Purmamarca y Maimará, 13 Mayo 1873, Lorentz & Hieronymus 749 (CORD) and s.n. (NY); Tilcara, 30 Dic. 1947, Rial s.n. (BAB). TUMBAYA: Entre Jujuy y El Voleán, 2000 m alt., Febr. 1916, Hauman s.n. (BA); Purmamarca, 2200 m alt., 10 Die. 1905, Lillo 4639 (LIL); Tumbaya, 18 Febr. 1903, Medinaceli s.n. (BAF); El Volcán, 2700 m alt., Rial s.n. (BAB). SALTA: Los Nogales, 19 Mayo 1944, Ruiz 632 (LIL). CACHI: Palermo, 20 Oct. 1948, Burkart 17622 (SI); Cachi, 4 Mayo 1947, Meyer 12340 (LIL); Amblaio, Enero 1897, Spegazzini 1343 (LP). CAFAYATE: Cafayate, 1660 m alt., 25 Mayo 1945, Lourteig

1034 (LIL); Cafayate, Dic. 1896, Spegazzini 1344 (LP); San Isidro, 17 Enero 1941, Villalón s.n. (LIL). CAMPO SANTO: San Lorenzo, 18 Abril 1948, Sotelo 820 (LIL). CAPITAL: Cerros de San Bernardo, 4 Feb. 1949, Legname 235 (LIL); 22 Abril 1944, Rojas 11445 (AS, LIL). GUACHIPAS: Quebrada de las Carchas, 14 Julio 1936, Cabrera 3749 (LP). METÁN: Río Pasaje o Juramento, 18 Mayo 1944, Ruiz 610 (LIL). MOLINOS: Seclatán, 2360 m alt., 26 Enero 1942, Garolera & Romero s.n.; (LIL); Sedantas a Brealito, 6 Mayo 1947, Meyer 12193 (LIL, U). ROSARIO DE LERMA: Gólgota, 2000 m alt., 17 Enero 1941, Meyer 3849 (NY). SANTA VICTORIA: Santa Victoria, 18 Enero 1941, Crespo s.n. (BA). TUCUMÁN: Río Grande, 1900 m alt., Morello 1225 (SI); Nucapa o Tiupuncó, 2000-2500 m alt., 19 Enero 1920, Schreiter s.n. (LIL). CAPITAL: Villa Alberdi, 438 m alt., Marzo 1913, Bailetti 53 (LIL); 450 m alt., 29 Sept. 1921, Schreiter 94 (LIL) and 1704 (LIL); Río Salí, 450 m alt., 24 Sept. 1923, Venturi 2063 (BAB, GH, LIL, LP, SI); TAFI: La Ciene-guita, quebrada El Chorro, cumbres Calchaquíes, 2000 m alt., 5 Enero 1914, Rodríguez 1244 (BA, BAB, LIL, LP, S). CHACO: RESISTENCIA: Resistencia, Nov. 1933, Schulz 847 (LP). MISIONES: CANDELARIA: Loreto 16 Abril 1946, Montes 2149 (F); 16 Nov. 1912, Rodríguez s.n. (SGO Gunckel). CAPITAL: Posadas, 1928, Denis 3 (BA). CORRIENTES: MERCEDES: Mercedes, Oct. 1919, Alessandrini s.n. (LP). ENTRE RÍOS: URUGUAY: Concepción del Uruguay, Febr. 1877, Lorentz s.n. (CORD, UPS). CATA-MARCA: AMBATO: El Rodeo, Dic. 1938, Devoto 2423 (BABosq). ANDALGALÁ: Fuerte de Andalgalá, Oct. 1873, Schickendantz 306 (CORD). BELEN: Belén, 8 Marzo 1929, Cabrera 1207 (LP, NY). CAPITAL: 500 m alt., 11 Dic. 1949, Barkley 19Ar582 (LIL); 13 Enero 1947, Brizuela 2 (LIL); 5 Agosto 1908, Castillón 239 (LIL) and 1340 (LIL) and 11 Nov. 1910, 39 (SI); 1946, Dimitri & Piccinini 9 (BAB); Catamarcia, Schickendantz 74 (CORD); Enero-Febr. 1910, Spegazzini s.n. (BAB); Aguada, 22 Mayo 1944, Varela 143 (LIL). SANTA MARÍA: Famatanea, 20 Febr. 1948, Reales 960 (LIL), Famatanea, 20 Nov. 1948, 970 (LIL), El Sarcito, 3 Marzo 1948, 1050 (LIL), Río Seco de Cansino, 6 Abril 1949, 1149 (LIL), Cerro Colorado, 10 Abril 1948, 1180 (LIL), 4 Febr. 1949, 1588 (LIL), Famatanea, 15 Febr. 1949, 1683 (LIL) and Los Pabellones, 16 Marzo 1949, Reales 1917 (LIL). SANTA ROSA: 15 Enero 1947, Brizuela 133 (LIL). TINOGASTA: Tinogasta: a Copacabana, 10 Mayo 1907, Estrada 15 (CORD). SANTIAGO DEL ESTERO: CAPITAL: Carmelich 977 (BABosq); Santiago del Estero, 7 Mayo 1944, Gramajo s.n. (LIL); Santiago del Estero, 185 m alt., 24 Julio 1944, Martínez 1

(LIL); Río Dulce, 18 Enero 1948, Montenegro 174 (LIL). *Choya*: Frías, 322 m alt., 6 Nov. 1946, Malvárez 2 (LIL). *La Banda*: La Banda, Junio 1913, Curran 153b (NY). *Robles*: Espada, 20 Febr. 1939, Arganaraz 200 (LP). *LA RIOJA*: Zeballos s.n. (LP); *Chilecito*: Chilecito, 1100 m alt., 8 Enero 1947, Hunziker 1767 (SI). *CÓRDOBA*: Villa del Lago, Enero 1939, de la Serna 28 (LIL); *Capital*: Córdoba, Bodenbender s.n. (G); Junio 1938, Devoto 377 (BABosq); Córdoba, 25 Enero, Lossen 38 (G); Puesto del Paraíso, 31 Abril 1896, Stuckert s.n. (G) General Paz, 7 Junio 1896, s.n. (CORD); San Vicente, 2 Nov. 1896, 553 (CORD), Altos Sud, 6 Oct. 1897, 3245 (CORD) and Altos Sud, 28 Nov. 1899, Stuckert 7826 (CORD); Parque Sarmiento, 19 Marzo 1947, Terrible 639 (LIL). *Colón*: Salsipuedes, Marzo 1938, Dawson 81 (LP). *Cruz del Eje*: Cruz del Eje, 2 Marzo 1933, Lahitte & Castro s.n. (BAB); Cruz del Eje, 30 Marzo 1944, D'Donell & Rodríguez 580 (LIL) and 28 Marzo 1944, 1275 (LIL); Cruz del Eje, 1 Enero 1947, Villafaña 242 (LIL) and San Marcos, 4 Junio 1947, 278 (LIL). *Ischilín*: Déan Funes, 2 Nov. 1945, Cuezzo 701 (LIL, S); Quilino, 17 Oct. 1946, Villafaña 71 (C, LIL) and Déan Funes, 20 Dic. 1946, 124 (LIL). *Punilla*: Los Cochos, Sierra Chica, Marzo 1940, Cabrera 6387 (LP, NY); Capilla del Monte, 17 Junio 1945, Castiglione 1770 (BABosq); Cosquín, 750 m alt., 22 Julio 1935, Rodrigo 200 (LP, NY); Capilla del Monte, 500-600 m. alt., 20 Julio 1935, 201 (LP, NY) and Molinar, 800 m alt., 1 Febr. 1936, Rodrigo 418 (LP, NY); Sierra de Córdoba, 26 Junio 1899, Stuckert 7733 (CORD, G) and Ochoa, Die. 1900, 9960 (CORD, G); Capilla del Monte, 11 Enero 1947, Villafaña 410 (LIL). *Río Primero*: 20 Oct. 1899, Stuckert 7414 (G). *Santa María*: Alta Gracia, 600 m alt., 14 Enero 1940, Hunziker 649 (CORD). *Totoral*: Febr. 1900, Domínguez s. n. (BAF); Ascochinga, 12 Nov. 1935, Giardelli 115 (SI). *Tulumba*: Cerro Sauce Punco, 1945, Cuezzo 763 (LIL); Déan Funes a Sauce Punco, Meyer 13475 (LIL). *SAN LUIS*: *Capital*: San Luis, 1913, Montero s. n. (LP); Alto Pencoso, Febr. 1914, Bruch & Carette s. n. (LP); Alto Pencoso, 27 Marzo 1947, Terrible 781 (LIL); San Luis, 711 m alt., 20 Nov. 1944, Varela 578 (LIL). *General Belgrano*: Nogolí, 25 Febr. 1925, Castellanos s. n. (BA). *Junín*: Merlo, Nov. 1910, Gerth s. n. (L). *SANTA FE*: *9 de Julio*: El Tostado, Enero-Febr. 1936, Job 1156 (LP). *BUENOS AIRES*: *La Plata*: Martín García, 15 Enero 1933, Pérez s. n. (BA); Isla Martín García, 8-20 Die. 1907, Spegazzini s. n. (BAB). *Capital Federal*: 27 Abril 1928, Clos 3609 (LIL); Gautier 28 (LIL); 14 Nov. 1904, Muñiez s. n. (BAB); 20 Enero 1922, Rojas 171 (BAB); 17 Nov. 1941,

Turner s.n. (LIL). *Saavedra*: S. Curumalal, 250 m alt., 19 Nov. 1941, Spegazzini 105 (BAB). *Villarino*: Argerich, Huergo s.n. (BAB). *LA PAMPA*: *Maracó*: General Pico, 22 Junio 1944, Martinoli 363 (BABosq). *SAN JUAN*: *Concepción*: Concepción, 15 Nov. 1945, Cuezzo 1108 (LIL). *Desamparados*: Chimbas, 16 Nov. 1945, Cuezzo 1152 (LIL, U); *Pocitos*: 21 Nov. 1945, Cuezzo 1345 (LIL). *Santa Lucía*: 28 Dic. 1945, Cuezzo 2212 (LIL, S). *25 de Mayo*: Algarrobo Verde, 7 Dic. 1945, Cuezzo 1777 (LIL, S). *MENDOZA*: *Las Heras*: Cerro de la Gloria, 900 m alt., Enero 1948, Hunziker & Calastremé 3302 (BAB); Cerro de la Gloria, 1 Nov. 1938, Ruiz 5353 (LIL), Parque General San Martín, 5 Enero 1939, 5679 (LIL) and Papagayos, 12 Abril 1942, Ruiz 8014 (BA, LIL). *Luján*: Chacras de Coria, Enero 1908, Jörgensen 227 (BAB). *Maipú*: Maipú, 30 Enero 1939, Ruiz 5657 (LIL).

25b. *Schinus Molle* var. *Rusbyi* Barkley, *Brittonia* 5: 186. 1944.

Small tree to 3 m high; branches slender, grayish-tan, at first puberulent; leaves paripinnately compound, the 34-48 leaflets opposite or subopposite, 10-48 mm long, 2-5 mm broad, lanceolate, acute with a curved mucro, subentire, asymmetric, broadly cuneate at base, sessile; rachis coarse, subalate, puberulent, continued beyond the upper pair of leaflets as deltoid-lanceolate mucro 2-3 mm long; rachis-segments 5-10 mm long; petiole 15-45 mm long, subalate, puberulent; inflorescences small terminal and axillary panicles 2-6 cm long, sparsely puberulent; bracts broadly deltoid, sparsely puberulent on the outer surface, ciliate with simple hairs, caducous; pedicels 3 mm long, sparsely puberulent below the abscission disk, glabrous above, sepals orbicular, glabrous on the outer surface, sparsely ciliate on the margin with simple hairs; petals ovate, truncate, glabrous, about 1.7 mm long; fruit red, 8 mm in diameter.

This variety may well prove to be more closely allied to *Schinus lentiscifolia* or may prove to be specifically distinct when better known.

Type: Perú: Cuzco: Yura: Small tree of 15 feet, 2500 m alt., R. S. Williams 2555 in the New York Botanical Garden Herbarium.

Common name: "Pimiento".

Specimens examined: PERU: Cuzco: Yura: 2500 m alt., Williams 2555 (NY-TYPE).

CHILE. TARAPACA: Pisagua, Río Seco entre Miñe Miñe y Menita, 2400 m alt., 17 Febr. 1948, Sudzuki 335 (SGO).

26. *Schinus weinmannifolius* Mart. ex Engl. in Mart. Fl. Bras. 12²: 385. 1876.

Schinus lentiscifolius var. *crenulatus* March. Rev. Anae. 164. 1869.

Schinus lentiscifolius var. *pilosus* Engl. in Mart. Fl. Bras. 12²: 386. 1876.

Schinus lentiscifolius var. *microphyllus* Chodat & Hassl. Bull. Herb. Boiss. 4: 67. 1904.

Schinus weinmannifolius var. *pauciflorus* Engl. in Mart. Fl. Bras. 12²: 386. 1876.

Undershrubs 20-40 cm high; branches softly woody, glabrate, (or at first pilose) thin, rarely branched except at base; leaves imparipinnately compound, at length subcoriaceous 3-10 cm long glabrate (usually very sparsely long-pilose and with clavate glandular hairs); leaflets 3-19, usually about 13, broadly lanceolate to ovate, 6-13 mm long, acute, entire or more often with 1-3 sinuate subpungent serrations or dentitions near the apex, cuneate or subcuneate at the base, sessile rarely the terminal larger and obovate; rachis-segments narrowly alate, 4-10 mm long; petiole very narrowly alate, 3-7 mm long, inflorescence a few-flowered contracted panicle, 5-30 mm long, very sparsely puberulent; bracts deltoid-lanceolate to deltoid-linear, acutish, glabrous, not ciliate on the margin; pedicels glabrate, about 3 mm long; sepals deltoid-ovate, glabrous, rarely ciliate on the margin, subentire to fimbriate; petals narrowly ovate to spatulate, obtuse, about 2 mm long; anthers ovate; fruit about 7 mm in diameter.

Type: Brazil: São Paulo: Campo dos Inforrados, Sello.

A cytogenetic study of the two varieties, the species, and of *S. terebinthifolius* vars. *acutifolius* and *Pohlianus* would be interesting, since morphologically these show a remarkable series of intermediate characters. Malme 643 approaches the variety *Riedelianus*.

Common names: Aroeirá rosteira, Rosteira.

Distribution: Southern Brazil, Uruguay, Paraguay and northeastern Argentina.

Specimens examined: BRAZIL: Sello 1388 (LISU), 2016 (LISU), C2016 (S), B2064 (S), 5052 (LISU, S) and s.n. (LISU, US); Bahía Blanca, Tweedie s. n. (BM). PARANÁ: Capão grande, 20 Dic. 1903, Dusén 2825 (R, S, US), Lago en Campo, 7 Marzo 1904, s. n. (R), Ponta Grossa,

18 Enero 1909, 7069 (S), Turma 23, 25 Enero 1910, 9135 (NY, S, US), Yaguariahyva, 25 Oct. 1910, 10441 (S), Yaguariahyva, 4 Enero 1911, s. n. (S), Curityba, 15 Nov. 1911, 13386 (S), and Capão Bonito, 30 Marzo 1915, Dusén s. n. (S); Lapa, Eng. Bley, 26 Nov. 1948, Hatschbach 1005 (RB, US). Ponta Grossa, 1 Nov. 1928, Hochne s. n. (LP, SP); Turma 23, 19 Oct. 1914, Jönsson 1215a (G, GH, MICH, PH, S, US). SANTA CATARINA: Ehapecó, 24 Enero 1952, Reitz 4318 (US); Rio GRANDE DO SUL: Perto Alegre, Morro da Polacieio, 26 Nov. 1901, Malme 521 (S) and Porto Alegre, Canoas, 30 Nov. 1901, 643 (R); Julio 1939, Rocha s. n. (RB); Porto Alegre, Tristeza, 3 Febr. 1948, Palaeios & Cuezzo 722 (LIL); Bom Jesus, 4 Marzo 1936, Rambo 2763 (LIL), de Sarandí, 23 Febr. 1945, 29197 (LIL), Porto Alegre, Morro da Policia, 5 Marzo 1949, 40388 (LIL), Fazenda do Arroio, Osorio, 4 Enero 1950, 45109 (LIL), Itapoavi, 3 Abril 1950, 46588 (LIL) and Osorio, 14 Abril 1950, Rambo, 46794 (BEL, LIL). SÃO PAULO: Tatuhy, 30 Enero 1918, Hoehen s. n. (SP); Itapetininga, 13 Nov. 1946, Lima s. n. (RB); Itapetininga, 21 Sept. Löfgren s. n. (SP); W. Lambari, Saint Hilaire 1269 (BM). MATTO GROSSO: Capão Bonito, 6 Sept. 1936, Archer y Gehrt s. n. (SP).

URUGUAY: Franqueras, 7 Mayo 1945, Legrand 3950 (MVM). Maldonado: Punta Ballena, Abril 1903, Arechavaleta s. n. (MVM). MONTEVIDEO: Nov. 1872, Gibert 878 (LP). PAYSANDÚ: Chapieuy, 21 Febr. 1921, Rosengurtt B-3207 (LIL). SORIANO: Juan Jackson, 21 Abril 1942, Gallinal, Aragone, Bergalli, Campal & Rosengurtt PE-4911 (LIL).

PARAGUAY: Armonía, 15 Enero 1900, Anisits 1903 (S); Alto Paraná 1909-1910, Fiebrig 5713 (G, L, LIL, LP); Die. 1899, Hassler 5575 (G-type of *Sch. lentiscifolius* var. *microphyllus* Chod. & Hassl). CONCEPCIÓN: Cabecera Estrella, Sierra de Aluriambay, Sept. 1935, Rojas 6335 (LIL, LP). SAN PEDRO: Sierra de Maracayú, Sept. 1898, Hassler 4553 (G, UC). YHU: Caaguazú, Febr. 1905, Hassler 8952 (G), Caaguazú, Mar. 1904, 9339 (G) and Caaguazú, 5 Oct. 1905, Hassler 9339 (K, UC).

ARGENTINA: Denis s. n. (LIL); Buenos Aires to Montevideo, Commerson (BM, G, NY). MISIONES: Arroyo Nera, 24 Enero 1947, Meyer 11401 (LIL). APÓSTOLES: San José de Pindapoy, 9 Enero 1942, Bridarolli 2553 (LP); Azara, 8 Febr. 1947, Ruiz 4642 (LIL) and 4697 (LIL). CAINGUAS: Campo Grande K. 184, 21 Enero 1945, Bertoni 624 (LIL). CANDELARIA: Picada Güemes, 21 Nov. 1947, Ruiz 4883 (LIL); Cerro Santa Ana, 7 Febr. 1945, Schwarz 641 (LIL); Santa Ana, 26 Enero 1907, Spegazzini s. n. (BAB); Santa Ana, Febr. 1911, Zamboni

s. n. (BAB). *Capital*: Santa Inés, 28 Feb. 1924, Hauman s. n. (BA); Santa Inés, 10 Enero 1921, Núñez 3005 (BA); Posadas, 11 Enero 1907, Spegazzini s. n. (BAB). *San Ignacio*: 26 Enero 1906, Arell 17 (BAB); San Ignacio, 30 Enero 1914, Quiroga 7680 (LIL, S). *CORRIENTES*: *Saladas*: Estancia Tataeua, 25 Febr. 1917, Haumann s. n. (BA). *Ituzaingó*: Estancia "El Plata", 6 Febr. 1944, Meyer 6363 (LIL). *San Cosme*: Paso de la Patria, Costa Toledo, 55 m alt., 25 Mayo 1945, Meyer 9002 (LIL).

26a. *Schinus weinmannifolius* var. *Riedelianus* Engl. in Mart. Fl. Bras. 12²: 386. 1876.

Schinus weinmannifolius var. *Riedelianus* f. *glabrescens* Chodat & Hassl. Bull. Herb. Boiss. 4: 66. 1904.

Schinus weinmannifolius var. *intermedius* Chod. & Hassl. Bull. Herb. Boiss. 4: 66. 1904.

Schinus weinmannifolius var. *intermedius* f. *paucijuga*. Chod. & Hassl. Bull. Herb. Boiss. 4: 66. 1904.

Schinus weinmannifolius var. *angustifolius* Barkl. Brittonia 5: 188. 1944, pr.p.

Shrub to 3 m high; branches slender, glabrous, little branched; leaves imparipinnately compound, at length subcoriaceous, 10-15 cm long, glabrate, leaflets usually 9-17, usually about 15, oblanceolate or lanceolate, 15-30 mm long, acute, entire or with few-several sharp serrations toward the apex, cuneate at the base, sessile; rachis-segments 7-15 mm long, narrowly winged (or rarely broadly winged); petiole 1-2.5 cm long, narrowly winged; inflorescence a contracted panicle about one-third-one half as long as the leaves (1.5-8 cm long), puberulent with clavate glandular hairs (or with a few simple non-glandular hairs on the ultimate branches); bracts deltoid to lanceolate, acutish, glabrous except with a few simple hairs on the margin; pedicels glabrous, about 1.5 mm long; sepals deltoid, acute or obtuse, glabrous (rarely with a few cilia on the margin); petals narrowly ovate, obtuse, about 2 mm long; anthers ovate; fruit about 9 mm in diameter.

Type: Brazil: São Paulo: Sello 5052 in the Herbarium of the Berlin-Dahlem Botanical Garden.

The varieties are all much larger plants than the species, and except for the var. *Hassleri* are much more abundant.

Distribution: Southwestern Brazil, Uruguay, Paraguay and northeastern Argentina.

Specimens examined: BRAZIL: RÍO DE JANEIRO: Serra do Marporto de Paraty, 4 Enero 1893, Glaziou 19010 pr. p. (R.). PARANÁ: Yagu-

riahyua, 13 Enero 1915, Dusén 16369 (G, S) and 20 Dic. 1915, 17454 (S). RÍO GRANDE DO SUL: Fox s. n. (BM); Porto Alegre, Menino Dans, 27 Dic. 1901, Malme 643 (S), 643a (S), 643b (S) and 643c (S); Espírito Santo, 24 Dic. 1948, Rambo s. n. (LIL), Porto Alegre, Morro Santa Teresa, 29 Abril 1949, 41320 (LIL), Porto Alegre, Morro da Policia, 16 Febr. 1950, 45845 (LIL), Viamão, 10 Abril 1950, 46717 (LIL) and Osorio, Boco de Faria, 8 Mayo 1950, Rambo 47030 (LIL); 1941, Vianna 102 (RB) and 169 (RB); SAO PAULO: Gaudichaud 929 (BM); Itapetininga, 20 Enero 1949, Lima s. n. (RB); St. Hilaire 1761 (BM).

URUGUAY: Arazeti, Abril 1922, Hauman s. n. (BA). MALDONADO: Punta Ballena, Bosque Lussich, 14 Abril 1944, Rosengurtt B-4688 (SP); Maldonado, Enero 1926, Schroeder 19434 (BA).

PARAGUAY: Paso Mbveaya, 14 Febr. 1897, Anisits 2611 (S); Luque, 25 Marzo 1875, Balansa 2523 (G, S); Yerutis, Die. 1898, Hassler 5800 (G-TYPE or *Sch. weinmannifolius* var. *Riedelianus* f. *glabrescens* Hassl (UC), Chabaló, Dic. 1900, 6870 (G-TYPE of *Sch. weinmannifolius* var. *intermedius* Hassl, UC), and Valensuela, Enero 1900, Hassler 6914 (G, UC-TYPE of *Sch. weinmannifolius* var. *intermedius* f. *paucijuga* Hassl.); 8 Abril 1889, Morong 668 (NY); Itapé, Abril 1943, Rojas & Pavetti 10503 (LP); Cordillerita, Julio 1932, Rojas 6136 (LIL, LP). ASUNCIÓN: Asunción, 8 Enero 1937, Archer 4929 (NY). CARAGUATAY: San Lorenzo del Campo Grande, Nov. 1941, Pavetti & Rojas 9351 (LP) and 9352 (LP) and Rojas 9352 (LP); Piribebuy, 24 Mayo 1945, Rojas 12745 (LIL, U); GAUIRA: Villa Rica, Die. Febr. 1876, Balansa 2523a (G) and 2623b (G); Villa Rica, Jörgensen 3430, (BA, LIL, LP), Enero 1928, 3430 (BAB), Abril 1932, 3430 (NY) and Nov. 1931, Jörgensen 3430 (LIL, S); Villa Rica, 29 Enero 1945, Rojas 12495 (LIL, LP). PARAGUARÍ: Paraguarí, Febr. 1894, Grosse A-3867 (S); Carapeguá, Feb. 1919, Rojas 3397 (AS, BAF, LP). SAN PEDRO: Itacurubú, Enero 1885-1895, Hassler 213 (G).

ARGENTINA: MISIONES: Denis (LIL); Teyucuaré, Julio 1942, Pérez s. n. (BA); Itaimbé, 4 Enero 1935, Rodríguez 472 (BA). APÓSTOLES: Apóstoles, 26 Enero 1926, Clos 1946, (BAB, LIL); Apóstoles, 9 Feb. 1947, Ruiz 4540 (LIL) and 4587 (LIL, U); San José, 7 Dic. 1946, Schwarz 3546 (LIL). CAINGUAS: Km 252 Ruta 14, 395 m alt., 25 Enero 1950, Schwindt 2958 (LIL) and 26 Enero 1950, 3041 (LIL). Candelaria: Santa Ana, 9 Marzo 1930, Grüner 86 (LIL), Loreto, 10 Die. 1930, 601 (LP), camino a Santa Ana, 6 Mayo 1931 s. n. (LP) and Loreto, 6 Mayo 1931, Grüner s. n. (BA, LP, NY); Santa Ana, 216 m alt., 20 Die. 1944,

Montes 472 (LIL), Loreto 218 m alt., 15 Febr. 1945, 557 (LIL), Yabebyry, 220 m alt., 11 Abril 1945, 653 (LIL), Santa Ana, 216 m alt., 8 Marzo 1946, 1977 (LIL), La Pastora, 220 m alt., 7 Junio 1946, 2335 (C, LIL, U) and Loreto, 220 m alt., 14 Abril 1947, Montes 343 (BAB); Santa Ana, 28 Julio 1946, Schwindt 3 (LIL), Santa Ana, 216 m alt., 2 Dic. 1947, 85 (LIL) and Santa Ana, 14 Abril 1947, Schwindt 195 (LIL, U); Candelaria, 13 Mayo 1944, Sesmero s.n. (LIL) and 17 Febr. 1945, s. n. (LIL); Santa Ana, 29 Enero 1907, Spegazzini s. n. (BAB) and 31 Enero 1907, s. n. (BAB). Capital: Posadas, 2 Dic. 1913, Curran 31 (LIL) and 38 (BAB, LIL); Posadas, 11 Marzo 1900, Holmberg 121 (SI); Posadas, 25 Febr. 1944, Meyer 5823 (LIL) and 20 Julio 1944, 5840 (LIL); Posadas, Agosto 1925, Scala 106 (LIL, LP); Posadas, 11 Enero 1907, Spegazzini s. n. (BAB) and 18 Enero 1907, s. n. (BAB). Concepción: El Tigre, 16 Dic. 1946, Schwarz 3660 (LIL, U). Iguazú: Felisia, 175 m alt., 12 Nov. 1949, Schwindt 2360 (LIL) and Victoria, 170 m alt., 18 Nov. 1949, 2748 (LIL). San Ignacio: San Ignacio, 17 Febr. 1945, Debole 3281a (LIL); San Ignacio, Febr. 1914, Gambiaggi 38 (BA) and s. n. (SI); San Ignacio, 13 Marzo 1914, Hiciuta s. n. (MVM); San Ignacio, 22 Feb. 1900, Holmberg s. n. (BA) and 22 Feb. 1900, 123 (SI); San Ignacio, 224 m alt., 5 Febr. 1947, Medina 215 (LIL); San Ignacio, 27 Enero 1947, Meyer 11603 (LIL) and 11605 (LIL); San Ignacio, 224 m alt., 26 Dic. 1944, Montes 473 (BAB, LIL); San Ignacio, 30 Enero 1914, Quiroga 307 (MVM); San Ignacio, 27 Enero 1949, Rossenurtt B-5574e (LIL); Colonia Ñancanguazú, 11 Enero 1946, Schwarz 1979 (LIL), Corpus, 22 Enero 1946, 1883 (LIL), and San Ignacio 19 Enero 1948, Schwarz 5425 (LIL); Concepción de la Sierra, 2 Febr. 1945, Sesmero 385 (LIL). San Pedro: Traarau a San Pedro, 550 m alt., 13 Abril 1950, Schwindt 3360 (LIL) and 3980 (LIL). CORRIENTES: Bella Vista: Arroyo Santi, 1 Junio 1948, Castellanos s. n. (LIL); Arroyo Santi, 1 Marzo 1948, Ragonese & Piecinini 6557 (BAB). Santo Tomé: Isla San Mateo, 29 Enero 1947, Ruiz 4635 (LIL) and Gobernador Vivasoro, 6 Febr. 1947, 4979 (LIL).

26b. *Schinus weinmannifolius* var. *dubius* Barkley, Brittonia 5: 188. 1944.

Schinus weinmannifolius var. *Riedelianus* f. *pubescens* Chod. & Hassl. Bull. Herb. Boiss. 4: 66. 1904.

Shrub to 4 m; branches pilose at least at first, little branched; leaves imparipinnately compound, at length thinly subcoriaceous, 5-12 cm long, pilose ad first, often later appearing glabrate except on the veins, the leaflets 1-11, usually about 9, lanceolate to broadly oblanceolate, entire or with a few (rarely several) sinuate serrations toward the apex, subcuneate at the base, sessile; rachis-segments 1-2 cm long, broadly winged, sparsely pilose; petiole 1-1.5 cm long, narrowly winged, sparsely pilose; inflorescence a contracted panicle, axillary, 4-8 cm long, pilose; bracts deltoid-lanceolate, sparsely pilose below the abscission disk, glabrous or very sparsely pilose above, 1-2 mm long; sepals deltoid, subacute, glabrous or very sparsely on the outer surface, ciliate on the margin with simple hairs; petals narrowly ovate, obtuse, glabrous, about 1.5 mm long; anthers ovate.

A little-branched, rather common shrub, similar in appearance to *Rhus Copallina*, spreading by means of underground rhizomes. In appearance it is intermediate between *Schinus weinmannifolius* and *Sch. terebinthifolius*.

Type: Paraguay: Upper Río Y-acá, Die., Hassler 6870 in the Gray Herbarium. Harvard University.

Distribution: Southwestern Brazil, Paraguay and northeastern Argentina.

Specimens examined: BRAZIL: Sello D1446 (S). Río GRANDE DO SUL: Porto Alegre, Febr. 1898, Czermak & Reineck 335a (G) and 335b (G); vicinity of São Leopoldo, 1941, Eugenio 190 (NY); Canaños 6 Abril 1949, Ligorio 48 (US); Canaños, 30 Nov. 1901, Malme 643 (S) and São Leopoldo, 17 Febr. 1902, Malme 1377 (S); Canaños, 28 Enero 1948, Palacios & Cuezzo 293 (BEL, LIL), Porto Alegre, Morro da Plicia, 2 Febr. 1948, 579 (LIL), Río Pardo, 10 Febr. 1948, 971 (LIL) and Encrusilhada do Sul, 11 Febr. 1948, Palacios & Cuezzo 1256 (LIL); Porto Alegre, São Leopoldo, 13 Enero 1933, Rambo 14 (LIL, SP), San Anco de Paula, 16 Enero 1946, 33185 (LIL), São Inacio, 650 m alt., 12 Dic. 1946 (LIL), Porto Alegre, 20 Nov. 1948, 38106 (LIL), Río dos Sinos, 10 Dic. 1948, 38712 (LIL), Estacão Pareci, 14 Enero 1949, 39743 (LIL), Caí, 14 Dic. 1948, 38754 (LIL), São Leopoldo, 20 Dic. 1948, 39024 (LIL), Morro do Osso, 41509 (LIL), Fazenda do Arroio 14 Abril 1950, 46794 (US), and Vila Manresa, 3 Marzo 1950, Rambo 46089 (LIL); Pareci Novo, 15 Enero 1946, Viey 32974 (LIL).

URUGUAY: CERRO LARGO: Cerro Quazunambó, Febr. 1928, Schröder 19419 (BAF). MALDONADO: Punta Ballena, Bosque Lussich, 14 Abril 1944, Rosengurtt B-4688 (LIL).

PARAGUAY: Cordillera de Altos, 3 Die. 1902, Fiebrig 557 (G, LP); San Bernardino, Enero 1916, Hassler 1599 (G), Cordillera de Altos, Enero 1899, 2973 (G-type of *Sch. weinmannifolius* var. *Riedelianus* f. *pubescentis* Hassl., UC), San Bernardino, Enero, 11480 (G), Ypacary, Julio 1913, 11480 (C, G, L), and Ypacaray, Enero 1913, 12479 (C, G, L) and 12479a (C, G, L); Jörgensen 4799 (S); San Bernardino, Enero 1916, Rojas 1599 (LP), Bernal-cué, Abril 1939, Rojas 8584 (LP) and Dic. 1943, 8584a (LIL). CARAGUATAY: Entre Caacupé y Tobatí, Die. 1936, Archer & Rojas 4855 (LP); 2 Enero 1937, Archer 4855 (US). GUAIRA: Villa Rica, Nov. 1941, Rojas 9259 (LP). SAN PEDRO: Itacurubí, Enero 1895-1896, Hassler 1759 (G) and 213a (G), Itacurubí, Nov. 1898, Hassler 3516 (G, UC).

ARGENTINA: MISIONES: Molfino (BAF); Apóstoles: Pueblo, 2 Nov. 1944, Ibarrola 1017 (LIL). Capital: Posadas, 15 Nov. 1907, Ekman 1960 (S). Candelaria: Cerro Cora, 7 Enero 1946, Bertoni 3586 (LIL); Loreto, 220 m alt., 2 Dic. 1946, Montes 87 (BAB), 5 Febr. 1947, 195 (BAB) and 1 Abril 1947, Montes s. n. (BA). San Ignacio: Mayo 1913, Hauman s. n. (BA); San Ignacio, 28 Febr. 1904, Vattuone & Bianchi 126 (BAF). San Javier: Concepción de la Sierra, 2 Febr. 1945, Sesmero 378 (LIL). CORRIENTES: Bella Vista: Bella Vista, Julio 1904, Torregiani s. n. (BAB). Esquina: Esquina, Sept. 1906, Bolla s. n. (BAB). San Roque: M. P. Mantilla, 6 Mayo 1945, Ibarrola 2879 (LIL). Santo Tomé: Isla San Mateo, 29 Enero 1947, Ruiz 4634 (LIL).

26c. *Schinus weinmannifolius* var. *Hassleri* (Barkl.) Barkl. nov. comb.

Schinus Molle var. *Hassleri* Barkl. Brittonia 5: 187. 1944.

Schinus lentiscifolius var. *angustifolius* Chod. & Hassl. Bull. Herb. Boiss. ser. 2. 4: 67. 1904.

Schinus lentiscifolius var. *angustifolius* forma *subobtusa* Chod. & Hassl. Bull. Herb. Boiss. ser. 2. 4: 67. 1904.

Schinus lentiscifolius var. *angustifolius* forma *flexuosa*. Chod. & Hassl. Bull. Herb. Boiss. ser. 2. 4: 67. 1904.

Schinus weinmannifolius var. *angustifolius* Barkl. Brittonia 5: 188. 1944, pr. p.

Small tree; branches slender, glabrous, little branched; leaves imparipinnately compound, glabrous, 7-12 cm long, the 9-19 leaflets (mostly

13-17) lanceolate, asymmetrical, acute to acuminate at the apex, subcuneate at the base, entire or sparsely serrate, 12-30 mm long; rachis segments alate, 3-12 mm long; petiole 10-13 mm long narrowly alate; inflorescences lateral panicles, 2.5-6 cm long; bracts deltoid-lanceolate, acuminate, glabrous or with very few cilia on the margins; pedicels glabrous, about 1 mm long and bearing 1 or 2 very small bracts; sepals deltoid, subacute, glabrous and not ciliate; petals narrowly ovate, truncate, glabrous; stamens ovate.

Type: Paraguay: Upper Río Y-apá, Nov. 1901-1902, Hassler 7909 in the Gray Herbarium.

Distribution: known only from Paraguay.

Specimens examined: BRAZIL: SAO PAULO: Itapetininga, 24 Enero 1950, Lima s. n. (RB).

PARAGUAY: CONCEPCIÓN: Appu cerca del río Tapiraguay, Dic. 1898, Hassler 5959 (G-type of *Schinus lentiscifolius* var. *angustifolius* f. *subobtusa* Hassl. and *Schinus weinmannifolius* var. *angustifolius* Barkl., UC), Río Apá, Nov. 1901, 7909 (G, GH-type, type *Sch. lentiscifolius* var. *angustifolius* f. *flexuosa* Chod. & Hassl. UC) and Sierra de Amambay, Enero 1913, Hassler 12023 (BAF, G); Vista Alegre, Febr. 1922, Rojas 4253 (BAF, LIL, LP). SAN PEDRO: Igatini, Nov. 1898, Hassler 5422 (G-type of *Schinus lentiscifolius* var. *angustifolius* Hassl.) and 5485 (G, UC).

27. *Schinus lentiscifolius* March. Rev. Anac. 164. 1869.

Small tree with many slender branches; branches glabrous; leaves (usually) paripinnately compound, subcoriaceous, about 6 cm long, glabrous, the leaflets 6-12 (mostly 8), subopposite, narrowly to broadly oblanceolate, shortly acuminate to obtuse and mucronate, 10-28 mm long, 2-9 mm broad, entire or somewhat irregular, narrowly obtuse at the base, sessile, the same color on both faces; rachis continued above the uppermost leaflets as a deltoid-lanceolate muero 1-5 mm long; rachis-segments glabrous; 3-15 mm long, alate; petiole 9-17 mm long, glabrous, very narrowly alate; inflorescences lateral and terminal contracted panicles, 2-8 cm (usually about 5 cm) long, very sparsely puberulent; bracts deltoid-ovate, sparsely puberulent on the outer surface, ciliate on the margin

with simple hairs; pedicels about 2 mm long, very sparsely puberulent; sepals deltoid, subacute, very sparsely puberulent on the outer surface, ciliate on the margin with a few short simple hairs or not ciliate; petals obovate, truncate, glabrous except for a few cilia on the margin; anthers ovate, fruit lavender-pink, about 5 mm in diameter.

Type: Gaudichaud in Secção da Botanica do Museu Nacional, Rio de Janeiro, nº 1180.

Common names: Coroba, Molle, Molle ceniciente.

Distribution: Southern Brazil, Uruguay and Misiones, Argentina.

Specimens examined: BRAZIL: Sello s.n. (LISU), Sello s.n. (S), Sello 3199 (LISU) and 20 Enero, Sello s.n. (US). Río DE JANEIRO: Serra do Mar, Porto de Paraty, 4 Enero 1893, Glaziou 19010 pr. p. (R). Río GRANDE DO SUL: Isabelle s.n. (BM) and 1835, Isabelle s.n. (F, G); Caçapava do Sul, 19 Febr. 1948, Palacios & Cuezzo 1433 (LIL); Bom Jesús, Aparados da Serra, 1000 m alt., 4 Enero 1947, Rambo 35010 (S); Julio 1939, de Rocha s.n. (RB). SANTA CATHARINA: Río Capinzal, 29 Febr. 1916, Dusén 17895 (S).

URUGUAY: Berro 8286 (G). CERRO LARGO: Cerro de las Cuentas, 23 Febr. 1938, Rosengurtt B-2562 (LIL, LP, NY), 23 Febr. 1938, B-2562-1/2 (LP) and 29 Dic. 1938, Rosengurtt B-2803 (LIL). LAVALLEJA: Minas, Salto del Penitente, 19 Mar. 1924, Herter 17048 (MVM, S) and Penitente, 200 m alt., 20 Enero 1935, 1082a (G, U); Arequita, Abril 1947, Lombarde s.n. (LIL); Minas, Marzo 1920, Schröder s.n. (MVM). MONTEVIDEO: Abril 1920, Doello s.n. (BA). TACUAREMBÓ: Valle Edén, 18 Febr. 1947, Castellanos 15884 (LIL); Sierra Rocha, Febr. 1925, Doello s.n. (BA); cerca de la gruta de los Cuervos, Legrand 1888 (MVM); Valle Edén, 3 Febr. 1947, Rosengurtt B-4982 (LIL, S). TREINTA Y TRES: Quebrada de los Cuervos, 21 Febr. 1948, Castellanos 15885 (LIL); Yerbal, 200 m alt., 27 Abril 1928, Herter 1082 (F, G, GH, LIL, MO, S, U) and 83354 (NY).

ARGENTINA: MISIONES: *Cainguas*: Chapá, 28 Junio 1948, Schwindt 673 (LIL). *Candelaria*: Bonpland, 15 Oct. 1900, Jörgensen 156 (BAB); Santa Ana, 3 Diec. 1909, Rodríguez 10 (BA, BAB, BAFAcC, LIL, LP, NY, SI); Santa Ana, 1 Oct. 1945, Schwarz 1316 (LIL, U). *San Ignacio*: El Destierro, 3 Oct. 1945, Schwarz 1341 (LIL) and Naneanguazú, 24 Oct. 1947, 5020 (LIL).

28. *Schinus terebinthifolius* Raddi, Mem. Mod. 18: 399. 1820 *.

Sarcocetheca bahiensis Turez. Bull. Soc. Nat. Mosc. 31 1: 474. 1858.

Schinus mucronulata Mart. Syst. Mat. Med. Veg. Bras. 52. 1843.

Schinus antiarthriticus Mart. ex March. Rev. Anac. 164. 1869.

Schinus Mellisii Engler. Bot. Jahrb. 1: 423. 1881.

Schinus terebinthifolius var. *Damazianus* Beauvarð. Bull. Herb. Bois ser. 2. 5: 405. 1905.

Shrub or tree to 7 m; branches thickish, glabrate, moderately branched; leaves imparipinnately compound, at length thickly membranaceous, 8-17 cm long, glabrous, the leaflets 7-13, usually about 9, obovate, 20-60 m long, subacute or rarely obtuse mucronate, mostly entire or rarely crenate-serrate or serrate, tending to be subrevolute, minutely puberulent on the veins, darker and often shining on the upper surface, duller and lighter below, subsessile; rachis-segments 1-3 cm long, narrowly winged, minutely puberulent; petiole not winged, minutely puberulent, 2-3 cm long; inflorescence an axillary panicle, 2-11 cm long (usually about 8 cm); bracts deltoid-lanceolate, puberulent on the outer surface, ciliate on the margin with simple hairs; pedicels sparsely pilose below the abscission plate, very sparsely puberulent with simple and glandular hairs above, about 1 mm long; sepals broadly ovate, glabrous or very sparsely puberulent, ciliate with simple hairs; petals ovate, obtuse, glabrous; anthers ovate; fruit red, about 5 mm in diameter.

Type: No type was cited by Raddi; *Didrechsen* 4074 in Copenhagen is typical.

Variation in this complex is striking. *Dusen* 2914 and *Glaziou* 3667 represent variation toward var. *Pohlianus*, *Barboza* 1063 and *Mello* 9086 toward var. *acutifolius*, and *Reitz* c562 toward var. *Raddianus*.

RADDI, G. Quaranta piante nuove del Brasile raccolte e descritte da Giuseppe Raddi. (Memorie della Società italiana delle Scienze, 1820, vol. 18: 382-414). pp. 399-400.

"22. *Schinus terebinthifolius*: foliis impari-pinnatis, foliolis septenis subaequalibus subserratis, floribus axillaribus racemosis.

"*Arocira* Marcgr. bras. p. 90.

"Piccolo albero, le di cui foglie somigliano a quelle del Terebnito o Pistacia Terebinthus Lin. Le foliole sono costantemente sette quasi uguali, ovato-lanceolate, ristrette alla base, e generalmente seghettate all'estremità: il peziolo comune è un poco marginato. I fiori sono minutissimi, e disposti in piccoli racemi o grappolini situati nelle ascelle delle foglie. Ognuno di questi fiori è composto di un calice a cinque divisioni, di cinque petali ovali e dieci stami d'ineguale lunghezza, i quali son castrati nei fiori feminei. Le bacche hanno molta somiglianza con quelle dello *Schinus* molle.

"È comunissimo nei contorni di Rio-Janeiro".

Common names: Areira, Aroeira, Aroeirá vermelha, Capoeira.

Distribution: From Venezuela to Argentina.

Specimens examined: VENEZUELA: Grenada Hoven, 1891-1892, Warming 118 (C).

BRAZIL: Joséphine s.n. (G); Claussen 477 (BM); 20 Die. 1904, Damazio 1614 (G); Glaziou 1381 (C). PARANÁ: Curityba, de Capanema s.n. (RB); Capão Grande, 23 Die. 1903, Dusén 2914 (R), Ponta Grossa, Capaz, 27 Enero 1909, 7588 (S) and Curityba, 27 Abril 1909, 4247 (G, S). RÍO DE JANEIRO: Corvocado, 1845-1847, Didrichsen 4074 (C); Lanca, Junio 1915, Frazon s.n. (RB); Natividade, Varre Sabe, Nov. 1941, Pereira 32 (RB). SANTA CATARINA: Arar, Sombrío, 11 Abril 1944, Reitz c469 (RB) and 12 Abril, c562 (RB), and 95 m alt., 16 Die. 1946, Reitz 1730 (LIL, S); Marzo 1890, Ule 1418 (CORD). MINAS GERAES: Ouro Preto, Barboza 1063 (R); 1840, Calussen s.n. (K); Juiz de Fora, 3 Julio 1869, Glaziou 3667 (C, R); Campo Grande, Ouro Preto, 15 Abril 1937, Mello 9086 (R); 680 m alt., 17 Dic. 1929, Mexia 4121 (G, NY, S, U) and 675 m alt., 25 Abril 1936, 4636 (CAS, F, G, GH, MO, NY, S, U, UC, US). SAO PAULO: Ilha de São Sebastião, 27 Abril 1935, Decker 10 (SP); Itinga, 27 Oct. 1887, Löfgren s.n. (SP); Estrada Jundiaí, 28 Febr. 1939, Viégas 3638 (BEL). Alta va Serra, de Santos a São Paulo, 800 m alt., 10 Mayo 1928, Schreiter 16 (LIL).

ARGENTINA: BUENOS AIRES: (Cult?) Saladiilo, Ibáñez s.n. (BAB). 28a. *Schinus terebinthifolius* var. *acutifolius* Engl. in Mart., Fl. Bras. 12²: 384. 1876.

Shrub or tree; branches thickish, glabrate or rarely sparsely short pilose, moderately branched; leaves imparipinnately compound, at length thickly membranaceous, 7-22 cm long, glabrous except the midvein above puberulent on rachis and leaflets, the leaflets 7-15 (usually 11-13), broadly lanceolate, often asymmetric, acute, obscurely crenate-serrate to entire, slightly subrevolute, cuneate at base, sessile, 2-5.5 cm long, lustrous above; rachis-segments narrowly winged, 1-2 cm long; petiole 2-4 cm long; very sparsely puberulent, not winged; inflorescences lateral panicles, 2.5-15 cm long, sparsely puberulent; bracts deltoid-lanceolate, very sparsely puberulent on outer surface, ciliate with red clavate hairs and simple hair, caducous; pedicels 1.5-2 mm long, puberulent below the abscission plate, glabrous above; sepals deltoid-ovate, subacute, sparsely puberulent on the outer surface, ciliate with simple hairs; petals lanceo-

late, obtuse, glabrous except for a few cilia; anthers ovate; fruit pink, about 5 mm in diameter.

Type: Brazil: Río de Janeiro: Glaziou 3667.

Common names: Areira mansa, Aroeira do Paraná, Aroeira vermelha, Molle-Mí.

Distribution: Southern Brazil and Paraguay to Misiones, Argentina.

Specimens examined: BRAZIL: Frazão 8647 (RB); Sello s.n. (LISU) and 2066 (S) and 2018 (S). MINAS GERAES: Abril-Agosto 1840, Claussen s.n. (UPS); São Julião, 22 Dic. 1888, Glaziou s.n. (R); Regnell II 1568 (C), 4 Abril 1869, III 1568 (S), 2 Febr. 1868, III 1568 (UPS) and 4 Agosto 1869, III 1568 (UPS); Riedel 107 (BM); St. Hilaire 279 (BM). PARANÁ: Ponta Grossa, Capão Grande, 23 Dic. 1903, Dusén 2914 (S-atypical), and 27 Enero 1909, 7588 (G, NY), and Curityba, 15 Marzo 1912, Dusén 13888 pr. p. (G, NY, S, U); Yaguariahguá, 11 de Mayo 1914 Jönsson 317a (S); Ivahy, 700 m alt., 30 Enero 1937, Tessmann 6033 (G). RÍO DE JANEIRO: Floresta de lijnea, 4 Enero 1878, Glaziou 9389 (R) and 1879, 9389 (C, G); 21 Enero 1887, Schenek 2197 (C). SAO PAULO: Taipas, 22 Dic. 1912, Grade 5918 (S), Botequim, 25 Die. 1912, 5917 (S, SP) and 16 Febr. 1913, Brade 5916 (S); Burchell s.n. (K); Febr. 1839, Guillemín 424 (BM, G) and 1840, 424 (NY); Mogy das Cruzes, 5 Abril 1938, Hashimoto 288 (SP); Butanan, 11 Mayo 1917, Hoehne s.n. (SP) and 29 Dic. 1917 s.n. (SP), Capital, nativo en Jardén Botánico, 18 Enero 1932, s. n. (SP), and São Paulo, 18 Enero 1932, Hoehne 28723 (LP, NY); Capital, Sierra de Cantareira, Oct. 1933, Koscincky 156 (SP); Löfgren 265 (C); Ipiranga, 17 Junio 1906, Luederwaldt s.n. (SP); and 17 Febr. 1908, s. n. (SP); Itapetininga, Lima s.n. (RB) and Mayo 1945, s. n. (RB); Ypannema, Nov. 1819, Sello s.n. (LISU); 10 Julio 1907, Usteri 41 (K) and 41a (K), 21 Julio 1906, 51b (K) and Villa Marianna, 21 Enero 1906, Usteri s.n. (SP); Loretto, Vecchi 149 (R); Loreto, Marzo 1918, Vecchi s.n. (SP); Jundiaí, 28 Febr. 1939, Viegas s.n. (SP).

PARAGUAY: Itapé, Estancia Jesús del Gran Poder, Abril 1943, Pavetti 10503 (AS). ASUNCIÓN: Bernal Cué, Rojas 8584 (LIL).

ARGENTINA: MISIONES: Nov. 1939, Giacobbi 360 (BABosq); Niederlein s.n. (BA). APÓSTOLES: Entre Apóstoles y Concepción, 31 Nov. 1944, Ragonese & Castiglioni 2707 (BABosq). CANDELARIA: Loreto, 22 Abril 1947, Montes s.n. (BA); Arroyo Santa Ana, 18 Enero 1945, Schwarz 533 (LIL); Santa Ana, 31 Enero 1907, Spegazzini (BAB).

28b. *Schinus terebinthifolius* var. *Pohlianus* Engl. in Mart. Fl. Bras. 12²: 384. 1876; Engl. in DC. Monog. Phaner. 4: 336. 1883; Arech. Anal. Mus. Nac. Montev. 3: 296. 1901.

Schinus Chichita Speg., Anal Soc. Cient. 16: 96. 1883.

Schinus terebinthifolius var. *Glaziovianus* Engl. in Mart. Fl. Bras. 12²: 385. 1876.

Schinus terebinthifolius var. *Selloanus* Engl. in Mart. Fl. Bras. 12²: 385. 1876.

Small tree; branches thick, at first pilose later appearing glabrate; leaves 7-19 cm long, at first ferrugineous-pilose but later often becoming subglabrate, leaflets 5-15 (mostly 11), ovate or obovate, 2.5-4.5 cm long, slightly asymmetric, acute to obtuse, usually obscurely crenate-serrate or serrate (rarely entire or strongly serrate), at maturity sparsely pilose (or subglabrate), darker on the upper surface, sessile; rachis-segments 1-2 cm long, broadly alate, sparsely pilose; petiole pilose, 2-4 cm long; inflorescence 2-8 cm long (usually 6 cm), pilose; bracts deltoid, glabrous on the outer surface; sepals deltoid-ovate, glabrous on the outer surface; petals lanceolate, obtuse; fruit pink, 5 mm in diameter.

Type: Paraguay: Yhu: Caaguazú, 5 Abril 1876, Balansa 2524 in the Institut de Botanique Systématique de l'Université de Genève.

Common names: Aroeira, Aroeira blanca, Aroeira colorada, Aroeira negra, Aroera, Bálsmo, Chicha, Chichita, Corazón de bugre, Molle, Molle colorado, Zuga amarga.

This is by far the commonest variety of the species.

Distribution: Southern Brazil, Paraguay and northeastern Argentina.

Specimens examined: BRAZIL: 6 Enero 1875, Glaziou 7579 (C); Caxoeira, Febr. 1835, Lund s.n. (C); Riedel 107 (G); Sello 4606 (LISU); Lagoa Santa, Warming 2422 (C) and Petrópolis, Santo Antonio, 23 Marzo 1872, s. n. (C). MINAS GERAES: 1840, Claussen s.n. (K); Lavras, Fazenda Boa Vista, 22 Enero 1939, Heringer 130 (SP); Lima Duarte, Serra da Ibitipoca, 16 Sept. 1940, Magalhães 546 (BEL); 17 Nov. 1905, Sampaio 3 (R) and 12 (R). PARANÁ: Tamandráé, 12 Nov. 1942, Graga 180 (Curityba); Capão Grande, 23 Dic. 1903, Dusen s.n. (UPS), Ponta Grossa, 13 Abril 1911, s. n. (S), Curityba, 30 Nov. 1903, 2315 (R, S), Curityba, 15 Marzo 1912, 1388 pr. p. (U) and Curityba, 28 Dic. 1913, Dusén 14324 (G, NY, S); Foz de Iguazú, 19 Abril 1944, Falcão 80 (RB), 23 Abril 1940, (RB) and 7 Mayo 1949, Falcão 145 (RB); Guabirutuba, 21 Dic. 1947, Haschbach 826 (LIL); Tibagy, 16 Junio 1934, Reiss, 65 (NY); Rolandia, 15 Mayo 1937, Tessmann 109 (RB), Curityba, 15 Dic. 1947, 2765 (Curityba) and Ivahy, 700 m alt.,

15 Marzo 1937, Tessmann 6109 (G, U); 21 Marzo 1887, Schenck 3237 (C). Río GRANDE DO SUL: Isabelle 927 (BM) and 1835, s. n. (G-TYPE of *Schinus terebinthifolius* var. *Selloanus* Engl.); Cruz Alta, 13 Abril 1893, Lindman A-1437 (S); Cruz Alta, 18 Enero 1902, Malme 1088a (S) and 15 Enero 1902, 1088a (S); Julio Castilhos a Guassupi, 4 Marzo 1948, Palacios & Cuezzo 2027 (LIL); São Luis, Caaró, 21 Enero 1938, 2885 (SP), Tupaceretán, 26 Enero 1946, 9127 (LIL), Sarandí, 23 Febrero 11 Marzo 1945, 28532 (LIL), Morro da Gloria, 3 Nov. 1945, 29385 (LIL) and Fazenda Bernardo Velho, 1000 m alt., 4 Enero 1947, Rambo 35007 (S, SGOGunkel) St. Hilaire 2691 (BM). SANTA CATARINA: Tres Barrros, 26 Feb. 1948, Mattos y Labouriau, s. n. (RB). RÍO DE JANEIRO: San Antonio, 23 Marzo 1872, Regnall 5805 (S). SAO PAULO: 17 Mayo 1930, Castellanos s. n. (BA); Itinga, 27 Oct. 1887, Löfgren 265 (LP) and Cubatão, 17 Marzo 1894, s. n. (SP); Piassaguéra, Die. 1913, Luederwaldt 2208 (SP).

PARAGUAY: Jörgensen 4799 (NY); Alto Paraná, 1909-1910, Fiebrig 5891 (G, LIL) and Oct. 1909, 6176 (G, LIL); Carimbatay, Die. 1898 Hassler 5823 (G) and Dic. 1900, s. n. (G). CAAZAPÁ: Abaí a San Juan Nepomuseno, Abril 1932, Rojas 5767 (LIL, LP). ENCARNACIÓN: Oct. 1896, Endlich 63 (G); Alto Paraná, Enero 1944, Rojas 10864 (LIL, LP), and Granja Jiménez, Enero 1944, 10864a (LIL, LP); Villa Encarnación, 23 Enero 1907, Spegazzini s. n. (BAB). GUAIRA: Villa Rica, Colonia Independencia, Febr. 1924, Rojas 4712 (LIL, LP). IPEJIHU: Nov. 1898, Hassler 5256 (G, UC). SAN PEDRO: Río Curagüaty, Dic. 1898, Hassler 5808 (G, UC). YHU: Caaguazú, 5 Abril 1876, Balansa 2524 (G-type) and 11 Nov. 1874, 2524a (BAF, S).

ARGENTINA: Spegazzini 1400 (LP-type of *Schinus Chichita* Speg.). MISIONES: Denis s. n. (LIL); Nov. 1939, Giacobbi 361 (BABosq); Spegazzini 109 (LP); Puerto Pampa, Febr. 1901, Autran 56 (BAF); Puerto Pampa, 10 Mayo 1901, Kermes 49 (BAB) and 49-a (BAB); Yacuy, Julio 1942, Pérez s. n. (BA); Cerca de Campo Viera Arroyo Yazú, 13 Marzo 1948, Schwabe 126 (BAB). APÓSTOLES: San José, 20 Febrero 1946, Bertoni 2725 (LIL, S); San José a Pindapay, 2 Enero 1942, Bridarolli 2514 (LP); San José, 27 Dic. 1944, Sesmero 236 (LIL) and Apóstoles, 15 Enero 1945, 308 (LIL). CAINGUAS: Puerto Tabay, 3 Marzo 1945, Schwarz 1598 (LIL); Puerto Rico, 205 m alt., 23 Dic. 1947, Schwindt 516 (LIL). Candelaria: Santa Ana, 10 Mayo 1944, Bertoni s. n. (LIL) and Mártires, 19 Nov. 1947, 3467 (BEL, LIL); Bonpland, 11 Enero 1908, Ekman 1956 (G, S) and 1 Nov. 1908, 1956, (S); Po-

sadas, 21 Sept. 1900, Gerling s.n. (BA); Loreto, 20 Febr. 1932, Grüner s.n. (LP, NY) and Santa Ana, 25-28 Febr. 1930, 12 (LIL); Picaada Güemes, 21 Febr. 1947, Ruiz 4880 (LIL), Cerro Azul, 16 Febr. 1947, 5257 (LIL), Leandro N. Alem, 17 Febr. 1947, 5468 (LIL) and Oberá, 19 Febr. 1947, Ruiz 5564 (LIL, U); Bonpland, Nov. 1910, Jørgensen 560 (BAB) and 664 (BAB); Santa Ana, 1901, de Llamas 239 (BAF, G) and 245 (G), Santa Ana, 253 (BAB), Santa Ana, 2 Dic. 1904, 698 (BAB, BAF, G) and Santa Ana, 1907, de Llamas s.n. (BAB); Arroyo Yabebirí, 25 Enero 1947, Meyer 11518 (LIL); Loreto, 216 m alt., Montes 73 (LIL), Loreto, 25 Oct. 1944, 338 (LIL), Santa Ana, 216 m alt., 8 Marzo 1946, 1978 (C, LIL) and Loreto, 23 Dic. 1947, Montes 54001 (BA); Loreto, Dic. 1909, Muniez s.n. (BAB); Loreto, Oct. 1939, Mutinelli 1859 (BABosq); Loreto, 28 Julio 1931, Pérez s.n. (BA) and Loreto, Julio 1942, s.n. (BA); entre Loreto y San Ignacio, 21 Enero 1945, Ragonese & Cozzo 2625 (BABosq); Santa Ana, 19 Sept. 1912, Rodríguez 46 (LIL, LP), 29 Sept. 1912, 46 (BA), 3 Dic. 1909, 46 (SI) and 3 Dic. 1909, Rodríguez 9925 (LIL); Candelaria, 12 Enero 1945, Schwarz 502 (LIL), Arroyo Martín Chico, 24 Enero 1945, 560 (LIL), Arroyo Mártires, 21 Febr. 1945, 708 (LIL) and Bella Vista, 1 Marzo 1945, Schwarz 742 (LIL); Candelaria, 18 Mayo 1944, Sesmero 20 (LIL) and Campo Vera, 13 Julio 1944, 114 (LIL); Santa Ana, Febr. 1911, Zamboni s.n. (BAB). CAPITAL: 1 Febr. 1945, Bertoni 833 (LIL) and Orillas del Río, 31 Julio 1945, Bertoni 1766 (LIL, U); Posadas, Febr. 1913, Curran 31 (BAB) and Posadas, 50-60 m. alt., 5-7 Dic. 1913, 31 (NY); Posadas, 26 Sept. 1900, Gerling (BAB); Posadas, 10 Febr. 1900, Holmberg 120 (SI); Posadas, 2 Enero 1911, Lillo 10586 (LIL); Posadas, 16 Febr. 1944, Meyer 5410 (BAB) and 5952 (LIL) and Santa Inés, 22 Enero 1947, 11366 (LIL); Itaimbé, 5 Dic. 1934, Rodríguez 410 (BA); Posadas, Agosto 1925, Scala 103 (LIL); Posadas, 4 Abril 1944, Sesmero s.n. (LIL); Posadas, 10 Enero 1907, Spegazzini s.n. (BAB); Posadas, 21 Julio 1909, Venturi 109 (LIL). Concepción: Concepción, 2 Febr. 1948, Schulz 6940 (LIL); Iguazú: Cataratas del Iguazú, 20 Febr. 1945, Descole 3383 (LIL); Río Iguazú, 29 Oct. 1900, Gerling s.n. (BA); Iguazú, 8 Julio 1945, Lourteig 1084 (LIL). San Ignacio: San Ignacio, 17 Febr. 1945, Descole 3281b (LIL); San Ignacio, 12 Marzo 1947, Montes s.n. (BA) and Teyucuaré, 222 m alt., 4 Abril 1946, Montes 2094 (LIL, U); San Ignacio, 20 Nov. 1922, Rojas 4475 (BAF); San Ignacio, 25 Abril 1945, Schwarz 1041 (LIL), Arroyo Yabebiri, 26 Sept. 1945, 1292 (LIL), Puerto Cayador, 9 Oct. 1945,

1368 (LIL), Km 101, 24 Die. 1945, 1716 (LIL), Corpus, 25 Enero 1946, 1717 (LIL), Arroyo Atepú, 3 Enero 1946, 1768 (LIL), Puerto Nuevo, 13 Mayo 1946, 2230 (LIL, U), María Antonia, 2 Abril 1946, 2373 (LIL), Arroyo Canto Pepó, 23 Abril 1946, 2576 (LIL) and Roca, 20 Nov. 1947, Schwarz 5206 (LIL). San Javier: Río Uruguay, 9 Die. 1945, Bertoni 2516 (LIL); San Javier, Agosto 1902, Burmeister 17-16 (BAB); San Javier, 27 Dic. 1946, Schwarz 3750 (LIL); Arroyo Lorenzo, 2 Enero 1947, 3789 (LIL) and Panambú, 20 Enero 1947, Schwarz 3907 (LIL, U); Oberá, 310 m alt., 21 Julio 1950, Schwindt 4784 (LIL). San Pedro: Caraguabay, 8 Nov. 1945, Schwarz 1450 (LIL). CORRIENTES: 1910, Spegazzini 437 (LP). San Roque: Caá-Guazú, Oct. 1940, Mangieri 136 (LP). Santo Tomé: Campo El Porvenir, 28 Nov. 1947, Cozzo 56M (BA); Cuay Grande, 21 Enero 1947, Ruiz 4244 (LIL), Bañado San Benito, 16 Enero 1947, 4464 (LIL) and Ruta 114, Km 15, 16 Nov. 1947, Ruiz 4520 (LIL); Santo Tomé, 25 Nov. 1944, Ibarrola 1415 (LIL) and Santo Tomé, 14 Nov. 1944, 1937 (LIL); 8 Febr. 1910, Venturi 427 (BAF, LIL). BUENOS AIRES: (Cult. ?) Junio 1909, Thays s.n. (BAF).

28c. *Schinus terebinthifolius* var. *Raddianus* Engl. in Mart. Fl. Bras. 12²: 384. 1876.

Shrub or tree; branches at first pilose-puberulent, later glabrate; leaves 7-16 cm long, at first minutely puberulent, soon glabrate, leaflets 3-9 (mostly 5 or 7), obovate, obtuse, crenate to subentire, very slightly subrevolute, glabrate, darker on the upper surface, the lateral leaflets 1.5-7 cm long, the terminal 5-7.5 cm long; rachis-segments 5-22 mm long, narrowly alate, sparsely puberulent; bracts deltoid, sparsely glandular; pedicels minutely puberulent below the abscission plate, glabrous above; sepals deltoid-ovate, subacute, glabrous on the surface; petals lanceolate, obtuse, about 1.5 mm long, glabrous.

Type: Brazil: Bahía: Ilhoes: Blanchet 1164 in the Institut de Botanique Systématique de l'Université de Genève.

Common names: Amyris, Aroeira de Praia, Aroeira do Brejo.

Distribution: In south central Brazil.

Specimens examined: VENEZUELA: Ingomar, 930 m alt., Marzo 1942, Pittier 14985 (VEN).

BRAZIL: Glaziou 1056 (C); Luschnath s. n. (C); Martius 115 pr. p (L) and 116 (G, L); Pers 159 pr. p. (L); Riedel s. n. (C, L, NY, UPS). RECIFE: Junio 1937, Sobrenho 445 (RB). BAHIA: 1832, Blanchet s. n. (NY); and 1164 (G-TYPE), 1342 (G) and 1805 (G); Até do Campo, 15 Mayo 1945, Machado s. n. (RB); 2 Junio 1931, Pirajá s. n. (S P); Canavieiras, 7 Marzo 1942, Rohr 40 (LIL); Salzman s. n. (G) and 1831, s. n. (G); MINAS GERAES: Marianne, 1833, Vauthier 440 (F); PERNAMBUCO: Restinga, Olinda, 3 Abril 1948, Gomes s. n. (RB); Olinda, 25 Junio 1925, Pickel 298 (SP) and 6 Marzo 1932, 3002 (S, US). RIO DE JANEIRO: Petrópolis, Corrêas, Febr. 1944, Campos 149 (RB); Copacabana, 8 Febr. 1862, Glaziou 12 (R); Restinga de María, 26 Junio 1901, Hemmendorff 452 (S); 1838-1840, Hombrón 1841 (NY); Restinga, San Sopieba, 22 Oct., Legrand 2183 (MVM); Gavea, Gruta de Imprensa, 23 Marzo 1946, Pereira 80 (RB); Therezopolis, 4 Abril 1917, Sampaio 2109 (R) and Atafane, Dic. 1931, 6272 (R); Vauthier s. n. (BM); 1844, Widgren s. n. (S). SAO PAULO: Guarujá, 23 Marzo 1938, Hoehne s. n. (SP); Ilha dos Alcatiazes, Sept. 1920, Luederwaldt y Fonseca s. n. (SP); Santos, 30 Marzo 1875, Mosén 3610 (UPS).

28d. *Schinus terebinthifolius* var. *rhoifolius* (Mart.) Engl. in Mart. Fl. Bras. **12²**: 384. 1876.

Schinus rhoifolia Mart. Flora **20** : (Beibl. 2) : 101. 1837.

Schinus Aroeira Velloza, Fl. Flum. **10** : pl. 135. 1827.

Schinus terebinthifolius var. *Aroeira* March. Rev. Anac. **52**. 1869.

Small tree; branches densely pilose at first; leaves 7-15 cm long some at length becoming subglabrate, the leaflets 3-9, mostly 5, ovate or obovate, emarginate or mucronate, the margin usually entire, rarely obscurely crenate-serrate, at first pilose but often becoming glabrate in age except on the veins, darker on the upper surface, the lateral leaflets 2-5.5 cm long, the terminal 3-7 cm long; rachis-segments 1-2 cm long, very narrowly alate, pilose; petiole not winged, pilose, 1.5-3 cm long; inflorescences 1-9 cm long (usually about 7 cm long); bracts deltoid, subacute, subglabrous on the outer surface; pedicels about 1 mm long, sparsely pilose; sepals deltoid-ovate, subacute, subglabrous; petals lanceolate to narrowly ovate, truncate; anthers ovate.

Type: Brazil: Rio de Janeiro: *Martius* 115 in the Institut de Botanique Systématique de l'Université de Genève.

Sampaio 2899 has more leaflets than typical.

Common names: Aroeira, Copaeirinha.

Distribution: South central Brazil.

Specimens examined: BRAZIL: 25 Nov. 1949, Duarte s. n. (RB); Sebastianopoli, Martius 115 (G, LISU) and 115 pr. p. (L); Botafo-gó, Abril 1838, Miers s. n. (BM); Pers 159 pr. p. (L); Raben s. n. (C); Campo Grande, Rungel y Schwacke s. n. (R); Sampaio 3291 (R); Warming s. n. (C); BAHIA: São Bento dão Lagos, 1913, Lützelburg 258 (NY). MINAS GERAES: Tombos, Tombos, 5 Mayo 1941, de Oliveira 328 (BEL); Serro, Serra de Condado, 2 Mayo 1945, Williams & Assis 6990 (LIL, UC, S). PARANÁ: Ilha do Mel, 27 Marzo 1948, Stellfeld 1304 (Curitiba). PERNAMBUCO: May 1838, Gardner s. n. (BM). RIO DE JANEIRO: Corcovado, 15 Marzo 1903, Dusén 1621 (S) and Corcovado, 15 Febr. 1903, 1621 (S); 18 Mayo 1835, Gabia (C); 1832, Gaudichaud 76 (G) and 1833, 807 (G); Praia de Leblon, 9 Junio 1901, Hemmendorff 362 (S), 372 (S) and 391 (S) Campos, Lohmann s. n. (R); Martius 115 (G-TYPE); Quinta Boa Vista, 10 Abril 1907, Neves s. n. (R); Take, Pohl 123 (G) and 4564 (G); 1835, Rodríguez s. n. (C); St. Hilaire 400 (BM); Bocca do Matti, 26 Marzo 1915, Sampaio 1392 (R) and Campos, Marzo 1918, 2899 (R); Copacabana, Agosto 1897, Ule 4413 (R); Marzo 1836, Vauthier 46 (G); Monte Alegre, 595 m alt., 6 Febr. 1927, Vidal s. n. (R), Boa Vista, 8 Marzo 1927, s. n. (R) and Vidal 102 (R); 24 Mayo 1866, Warming 2423 (C). SAO PAULO: Piassaguera, 17 Mayo 1894, Löfgren 2493 (LP); Santos, 20 Marzo 1875, Mosén 3610 (S); Ubatuba, Estação Experimental, 19 Julio 1939, Smith s. n. (SP).

Because of lack of authentic material or insufficiency of description the disposition of the following names must remain doubtful, at least for the present.

Duvaua dependens var. α Hook. Bot. Misc. **3** : 176. 1883.

Schinus Fagara L. Sp. Pl. **1** : 389. 1753.

The following names do not concern the genus under consideration.
Duvaua pleuropogon Turcz. Bull. Soc. Nat. Mosc. **31¹** : 467. 1858 = *Mauria simplicifolia* HBK. Nov. Gen. Sp. **7** : 11, pl. 605, & *Lithraea venenososa* Miers, Trav. Chil. **2** : 529.

Schinus aurantiodorus Ruiz ex Engl. in DC. Monog. Phaner. **4** : 326. 1883 = *Mauria aurantiodora* Engl. in DC Monog. Phaner. **4** : 326. 1883.

Schinus benghalensis Buch.-Ham. Trans. Linn. Soc. **17** : 194. 1835, = *Protium serratum* Engl. in DC. Monog. Phaner. **4** : 88. 1883.

Schinus ? discolor Benth. Bot. Voy. Sulph. 11. 1844, = *Pachycormus discolor* Coville, Cent. Dict. rev. ed. 6708. 1911.

Schinus hexander Sessé & Mociño, Fl. Mexic. ed. 2.233. 1894 = *Bursera* sp.

Schinus indicus Burm. f. Fl. Ind. 315. 1768; not *Schinus*.

Schinus leucocarpus Mart. ex Engl. in Mart. Fl. Bras. 12²: 394. 1876, = *Lithraea molleoides* (Vell.) Engl. in Mart. Fl. Brasil 12²: 394. tab. 83. 1876.

Schinus Limon:a L. Sp. Pl. 389. 1753, = *Limonia acidissima* L. Sp. Pl. ed. 2, 554. 1762.

Schinus Lithi Domb. ex March. Rev. Anac. 183. 1869, = *Lithraea venenosa* Miers, Trav. Chil. 2: 529.

Schinus mauriooides Rusby, Bull. N. Y. Bot. Gard. 8: 102. 1912 = *Mauria* sp.

Schinus Molle Hort. ex Engl. in DC. Monog. Phaner. 4: 346. 1883, not L. 1753 = *Lithraea molleoides* (Vell.) Engl. in Mart. Fl. Bras. 12²: 394. 1876.

Schinus angustifolius Sessé & Moc. Pl. N. Hisp. ed. 1. 173. 1887-1890, = *Bursera*. (See Barkley, Anacardiaceae of Sessé & Mociño. Biologist 18: 15-16. 1945).

Schinus occidentalis Sessé & Moc. Pl. N. Hisp. ed. 1, 173. 1887-1890, = *Bursera*. (See Barkley, Anacardiaceae of Sessé & Mociño. Biologist 18: 15-16. 1945).

Schinus molleoides Vell. Fl. Flum. 10: pl. 134. 1827, = *Lithraea molleoides* (Vell.) Engl. in Mart. Fl. Bras. 12²: 394. 1876.

Schinus Niara Buch. - Ham. Trans. Linn. Soc. 17: 194 1835, = *Protium serratum* Engl. in DC. Monog. Phaner. 4: 88. 1883.

Schinus myricoides L. Sp. Pl. 388. 1753, = *Cuscuta africana* Willd. Sp. Pl. 1: 703. 1798.

Schinus procerus March. Rev. Anac. 164. 1869 = *Pachycormus discolor* Coville, Cent., Dict. rev. ed. 6708. 1911.

Schinus pubescens Spreng. ex Engl. in Mart. Fl. Bras. 12²: 176. 1876, = *Zanthoxylum rhoifolium* Lam. Encyc. 2: 39. 1883.

Schinus tenuifolius Gill. ex Steud. Nom. ed. 2. 2: 530. 1841, = *Lithraea molleoides* (Vell.) Eng. in Mart. Fl. Bras. 12²: 394. 1876.

Schinus terebinthifolius var. *ternifolius* March. Rev. Anac. 164. 1869 = *Lithraea ternifolia* (Gillies) Barkl., Lilloa.

Schinus ternifolius Gill. ex Hook. Bot. Misc. 3: 177. 1833 = *Lithraea ternifolia* (Gillies) Barkl., Lilloa.

Schinus tragodes L. Sp. Pl. 389. 1753 = *Zanthoxylum tragodes* - DC. Prodr. 2: 725. 1825.

INDEX OF COMMON NAMES

- | | | | |
|-------------------------------|-------------------|-----------------------------|----------------------------------------------------------------------|
| <i>Aguaribay</i> | 25, 25a | <i>Huingen</i> | 13 |
| <i>Aguaribay del Pimiento</i> | 25a | <i>Horcomolle</i> | 18 |
| <i>Aguaribay-Pimiento</i> | 25 | <i>Horec-molle</i> | 18 |
| <i>Aguaribay pimiento</i> | 25a | <i>Incienso</i> | 5a |
| <i>Aguicibay</i> | 25a | <i>Laura</i> | 22 |
| <i>Amyris</i> | 28c | <i>Litre</i> | 22 |
| <i>Anacahuita</i> | 25 | <i>Litrecillo</i> | 22 |
| <i>Arbol de la pimienta</i> | 25 | <i>Litro</i> | 22 |
| <i>Arbol del Peru</i> | 25a | <i>Luyu-luyu</i> | 5a |
| <i>Areira</i> | 28 | <i>Molle</i> | 2, 3, 5, 5a, 6, 6a, 7, 8, 13a, 16, 18, 19, 21, 25, 25a, 26a, 27, 28b |
| <i>Aroeira</i> | 26a, 28, 28b, 28d | <i>Molle banco</i> | 5, 5a, 6, 6a, 8, 18 |
| <i>Aroeira blanca</i> | 28b | <i>Molle ceniciente</i> | 27 |
| <i>Aroeira colorada</i> | 28b | <i>Mollecito</i> | 26a |
| <i>Aroeira negra</i> | 28b | <i>Molle colorado</i> | 5, 6a, 8, 26b, 28b |
| <i>Aroeirá vermelha</i> | 28 | <i>Molle criollo</i> | 6 |
| <i>Aroeira rasteira</i> | 26 | <i>Molle de Bastilla</i> | 25a |
| <i>Aroera</i> | 28b | <i>Molle de beber</i> | 5a, 8 |
| <i>Ayo colorado</i> | 5a | <i>Molle de Bolivia</i> | 25a |
| <i>Bálisamo</i> | 25, 28b | <i>Molle de curtir</i> | 4, 5, 5a, 8 |
| <i>Blanquillo</i> | 18 | <i>Molle de incienso</i> | 5a, 6b, 8 |
| <i>Cabra</i> | 22 | <i>Molle de la quebrada</i> | 18 |
| <i>Capoeira</i> | 28 | <i>Molle del cerro</i> | 18 |
| <i>Corazón de bugre</i> | 28b | <i>Molle de Tucumán</i> | 6 |
| <i>Caroba</i> | 26a, 27 | <i>Molle espinoso</i> | 8 |
| <i>Citriora</i> | 7 | <i>Molle falso</i> | 22 |
| <i>Curanguay</i> | 25 | <i>Molle guajú</i> | 5 |
| <i>Chicha</i> | 28b | <i>Molle Guazú</i> | 5 |
| <i>Chichilla del pajarito</i> | 26a | <i>Molle-i</i> | 26a, 26b |
| <i>Chichita</i> | 25, 26a, 26b, 28b | <i>Molle incienso</i> | 9a |
| <i>Chichita aroeira</i> | 25 | <i>Molle lechososo</i> | 25 |
| <i>Chichita brasa</i> | 25 | <i>Mollemi</i> | 26a |
| <i>Chichita brava</i> | 25 | <i>Molle-mí</i> | 26a, 26b |
| <i>Chichita del suel</i> | 26a | <i>Molle-molle</i> | 26a |
| <i>Chichita enana</i> | 26a | <i>Molle morado</i> | 3, 5a, 8 |
| <i>Chichita péndula</i> | 25 | <i>Molle negro</i> | 8 |
| <i>Chichita sauce</i> | 25 | <i>Molle pispi</i> | 5 |
| <i>Chirimolle</i> | 5a, 6b | <i>Molle pispita</i> | 5a |
| <i>Gualeguay</i> | 25 | <i>Molle pispi</i> | 5, 5a, 6, 8 |
| <i>Huingán</i> | 13 | | |

- Molle Santiagueño* 5
Molle trepador 8, 18
Moradilla 5
Moradillo 5
Moye 5, 6, 6a
Moye blanco 6a
Moye pispito 5
Pepper tree 25a
Peruvian Pepper 25a
Pimentero 25
Pimentón 25a
- Pimienta del diablo* 8, 25
Pimienta leña 25a
Piro 25a
Poivrier d'Amérique 25a
Quebracho colorado 25a
Sauce 25
Terebinto 24, 25, 25a
Terevinto 25a
Trementina 5
Yacuiba 6
Zuga amarga 28b

INDEX TO SCIENTIFIC NAMES

- Amyris polygama* Cav. = *Schinus polygamus* 13
Cybianthus myrtifolius Griseb. = *Schinus myrtifolius* 16
Duvalia crenata Philippi = *Schinus polygamus* var. *parviflorus*, 13a
Duvalia cuneata Gillies ex Hook. & Arn. = *Schinus polygamus* 13
Duvalia dentata DC. = *Schinus polygamus* 13
Duvalia dependens DC. = *Schinus polygamus* 13
Duvalia dependens var. α Hook. ?
Duvalia dependens var. γ Hook. = *Schinus latifolius* 21
Duvalia dependens var. *crenata* Arechaval = *Schinus latifolius* 21
Duvalia dependens var. *obovata* Arechaval = *Schinus polygamus* 13
Duvalia dependens var. *ovata* Arechaval = *Schinus polygamus* 13
Duvalia dependens var. *parviflora* Arechaval = *Schinus polygamus* var. *parviflorus* 13a
Duvalia dependens var. *patagonica* Phil. = *Schinus O'Donellii* 2
Duvalia fasciculata Griseb. = *Schinus fasciculatus* 5
Duvalia inebriens Gillies ex Hook. & Arn. = *Schinus polygamus* 13
Duvalia latifolia Gillies ex Lindl. = *Schinus latifolius* 21
Duvalia longifolia Lindl. = *Schinus longifolius* 7
Duvalia molle Bertero ex Mart. = *Schinus velutinus* 19
Duvalia ornata Phil. f. = *Schinus polygamus* 13
Duvalia ovata Lindl. = *Schinus polygamus* 13
Duvalia patagonica Philippi = *Schinus patagonicus* 22
Duvalia pleuropogon Turcz. = *Mauria simplicifolio* HBK.
Duvalia polygama Kunth. = *Schinus polygamus* 13
Duvalia praecox Griseb. = *Schinus praecox* 4
Duvalia praecox var. *hyemalis* Griseb. = *Schinus praecox* 4
Duvalia praecox var. *montana* Griseb. = *Schinus praecox* 4
Duvalia praecox var. *glomerata* Griseb. = *Schinus fasciculatus* 5
Duvalia sinuata Griseb. = *Schinus fasciculatus* 5
Duvalia spinescens Hort. ex Griseb. = *Schinus fasciculatus* 5
Duvalia spinescens Tenore = *Schinus polygamus* 13
Duvalia spinosa Britt. = *Schinus spinosus* 12
Duvalia spinosa Britt. = *Schinus fasciculatus* 5

- Duvalia velutina* Turcz. = *Schinus velutinus* 19
Litrea crenata Phil. = *Schinus polygamus* var. *parviflorus* 13a
Litrea Molle Gay. = *Schinus latifolius* 21
Litrea montana Philippi = *Schinus montanus* 23
Litrea montana var. *patagonica* Philippi = *Schinus patagonicus* 22
Litrea patagonica Philippi = *Schinus patagonicus* 22
Mauria Schickendantzii Hieron. ex Engl. in Mart. = *Schinus latifolius* 21
Sarcotheca bahiensis Turcz. = *Schinus terebinthifolius* 28
Schinus antinus (Engl.) Jonhst. 15
Schinus andinus var. *subtridentatus* Barkl. = *Schinus andinus* 15
Schinus angustifolius Sessé & Mociño = *Bursera* sp.
Schinus antiarthriticus Mart. ex March. = *Schinus terebinthifolius* 28
Schinus Areira L. = *Schinus Molle* var. *Areira* 25a
Schinus Aroeira Velloza = *Schinus terebinthifolius* var. *rhoifolius* 28d
Schinus aurantiodorus Ruiz ex Engl. in DC. = *Mauria aurantiodora* Engl. in DC.
Schinus benghalensis Buch. Ham. = *Protium serratum* Engl. in DC.
Schinus bituminoides Salisb. = *Schinus Molle* var. *Areira* 25a
Schinus bumeliooides Johnst. 8
Schinus Cabreræ Barkl. = *Schinus piliferus* var. *Cabreræ* 6a
Schinus crenatus Engl. = *Schinus patagonicus* 22
Schinus Chichita Speg. = *Schinus terebinthifolius* var. *Pohlianus* 28b
Schinus chilensis March. = *Schinus velutinus* 19
Schinus chilensis var. *glabra* March. = *Schinus latifolius* 21
Schinus dentatus Andr. = *Schinus polygamus* 13
Schinus dependens Orteg. = *Schinus polygamus* 13
Schinus dependens var. *andinus* Engl. in DC. = *Schinus andinus* 15
Schinus dependens var. *brevifolia* Fenzl. ex Engl. in Mart. = *Schinus polygamus* 13
Schinus dependens var. *crenata* Arechav. = *Schinus polygamus* var. *parviflorus* 13a
Schinus dependens var. *crenatus* Engl. in Mart. = *Schinus polygamus* var. *parviflorus* 13a
Schinus dependens var. *crenatus* Engl. in Mart. = *Schinus andinus* 15
Schinus dependens subsp. *crenatus* Reiche = *Schinus polygamus* var. *parviflorus* 13a
Schinus dependens var. *latifolia* March. = *Schinus latifolius* 21
Schinus dependens var. *longifolia* Fenzl. ex Engl. in DC. = *Schinus polygamus* 13
Schinus dependens var. *paraguariensis* Hassl. = *Schinus longifolius* var. *paraguariensis* 7a
Schinus dependens var. *parviflorus* March. = *Schinus andinus* 15
Schinus dependens var. *parviflorus* March. = *Schinus polygamus* var. *parviflorus* 13a
Schinus dependens f. *patagonica* (Phil.) Cabr. = *Schinus O'Donellii* 2
Schinus dependens var. *subintegra* Arechaval = *Schinus longifolius* 7
Schinus dependens var. *subintegra* Arechaval = *Schinus polygamus* 13
Schinus dependens var. *subintegra* Engler in Mart. = *Schinus fasciculatus* var. *arenicola* 5a
Schinus dependens var. *subintegra* Engler in Mart. = *Schinus longifolius* 7
Schinus dependens subsp. *subintegra* f. *arenicola* Hauman = *Schinus fasciculatus* var. *arenicola* 5a
Schinus ? discolor Benth. = *Pachycormus discolor* Coville.
Schinus diversifolius Rusby = *Schinus Pearcei* 24
Schinus Engleri Barkl. 9

Schinus Engleri var. *uruguayensis* Barkl. 9a
Schinus Fagara L. = ?
Schinus fasciculatus (Griseb.) Johnst. 5
Schinus fasciculatus var. *arenicola* (Haum.) Barkl. 5a
Schinus fasciculatus var. *boliviensis* Barkl. = *Schinus piliferus* var. *boliviensis* 6b
Schinus ferox Hassl. 11
Schinus gracilipes Johnst. 18
Schinus gracilipes var. *pilosus* Barkl. 18a
Schinus hexander Sessé & Mociño = *Bursera* sp.
Schinus Huyngan Kuntze = *Schinus polygamus* 13
Schinus Huyngan var. *heterophyllus* Kuntze = *Schinus fasciculatus* 5
Schinus Huyngan var. *longifolius* Kuntze = *Schinus bumeloides* 8
Schinus Huyngan var. *subtridentatus* Kuntze = *Schinus andinus* 15
Schinus Huygan Molina = *Schinus Molle* 25
Schinus Huygan Ruiz ex Mart. = *Schinus polygamus* 13
Schinus indicus Bur. = ?
Schinus Johnstonii Barkley 3
Schinus Kauselii Barkey 20
Schinus latifolius (Gillies) Engl. in Mart. 21
Schinus latifolius var. *glabta* Fenzl. ex Engl. in Mart. = *Schinus latifolius* 21
Schinus latifolius var. *tomentosus* Fenzl. ex Engl. in Mart. = *Schinus velutinus* 19
Schinus lentiscifolius March. 27
Schinus lentiscifolius var. *angustifolius* Hassl. = *Schinus weinmannifolius* var. *Hassleri* 26c
Schinus lentiscifolius var. *angustifolius* f. *flexuosa* Chod. & Hassl. = *Schinus weinmannifolius* var. *Hassleri* 26c
Schinus lentiscifolius var. *angustifolius* f. *subobtusa* Hassl. = *Schinus weinmannifolius* var. *Hassleri* 26c
Schinus lentiscifolius var. *crenulatus* March. = *Schinus weinmannifolius* 26
Schinus lentiscifolius var. *microphyllus* Chod. & Hassl. = *Schinus weinmannifolius* 26
Schinus lentiscifolius var. *pilosus* Engl. in Mart. = *Schinus weinmannifolius* 26
Schinus leucocarpus Mart. ex Engl. in Mart. = *Lithraea molleoides* (Vell.) Engl.
Schinus Limonia L. = *Limonia acidissima* L.
Schinus Lithi Domb. ex March. = *Lithraea caustica* Molina
Schinus longifolia Griseb. = *Schinus fasciculatus* var. *arenicola* 5a
Schinus longifolius (Lindl.) Speg. in Speg. & Girola 7
Schinus longifolius var. *paraguariensis* (Hassl.) Barkl. 7a
Schinus Marchandii Barkl. 1
Schinus maurioides Rusby = *Mauria* sp.
Schinus Mellisii Engler = *Schinus terebinthifolius* 28
Schinus microphyllus Johnst. 14
Schinus Molle Hort. ex Engl. in DC. non L. = *Lithraea molleoides* (Vell.) Engl.
Schinus Molle L. 25
Schinus Molle var. *Areira* (L.) DC. 25a
Schinus Molle var. *argentifolius* March. = *Schinus Molle* 25
Schinus Molle var. *Hassleri* Barkl. = *Schinus weinmannifolius* var. *Hassleri* 26c
Schinus Molle var. *Huygan* March. = *Schinus Molle* 25
Schinus Molle var. *Rusbyi* Barkl. 25b
Schinus molleoides Vell. = *Lithraea molleoides* (Vell.) Engl.

Schinus montanus (Phil.) Engl. 23
Schinus montanus var. *crenuloides* Barkl. = *Schinus patagonicus* var. *crenuloides* 22a
Schinus montanus var. *patagonicus* Reiche = *Schinus patagonicus* 22
Schinus mucronulata Mart. = *Schinus terebinthifolius* 28
Schinus myricoides L. = *Cuscuta africana* Willd.
Schinus myrtifolius (Griseb.) Cabrera in Freng. emm. Barkl. 16
Schinus myrtifolius Cabr. in Freng. = *Schinus bumeloides* 8
Schinus Niara Buch. Ham. = *Protium serratum* Engl. in DC.
Schinus occidentalis Sessé & Moc. = *Bursera* sp.
Schinus O'Donellii Barkley 2
Schinus paraguariensis (Hassl.) Barkl. = *Schinus longifolius* var. *paraguariensis* 7a
Schinus patagonicus (Phil.) Johnst. in Cabr. 22
Schinus patagonicus var. *crenuloides* (Barkl.) Barkl. 22a
Schinus Pearcei Engl. 24
Schinus piliferus Johnst. 6
Schinus piliferus var. *boliviensis* (Barkl.) Barkl. 6b
Schinus piliferus var. *Cabrerae* (Barkl.) Barkl. 6a
Schinus polygamus (Cav.) Cabr. in Freng. 13
Schinus polygamus f. *australis* Cabrera = *Schinus Johnstonii* 3
Schinus polygamus f. *australis* Cabrera = *Schinus Marchandii* 1
Schinus polygamus f. *arenicola* Cabrera = *Schinus fasciculatus* var. *arenicola* 5a
Schinus polygamus f. *crenatus* Cabrera = *Schinus polygamus* var. *parviflorus* 13a
Schinus polygamus var. *chilensis* Barkl. = *polygamus* 13
Schinus polygamus f. *chubutensis* Cabrera = *Marchandii* 1
Schinus polygamus f. *fasciculatus* Cabrera = *Schinus fasciculatus* 5
Schinus polygamus f. *heterophyllus* Cabrera = *Schinus fasciculatus* 5
Schinus polygamus f. *ovatus* Cabrera = *Schinus polygamus* 13
Schinus polygamus f. *parviflorus* Cabr. = *Schinus polygamus* var. *parviflorus* 13a
Schinus polygamus var. *parviflorus* (March.) Barkl. 13a
Schinus praecox (Griseb.) Speg. in Speg. & Girola 4
Schinus procerus March. = *Pachycormus discolor* Coville
Schinus pubescens Spreng. ex Engl. in Mart. = *Zanthoxylum rhoifolium* Lam.
Schinus Ramboi Barkl. 10
Schinus rhoifolia Mart. = *Schinus terebinthifolius* var. *rhoifolius* 28d
Schinus spinosus Engl. in Mart. 12
Schinus tenuifolius Gill. ex Steud. = *Lithraea molleoides* (Vell.) Engl.
Schinus terebinthifolius Raddi. 28
Schinus terebinthifolius var. *acutifolius* Engl. in Mart. 28a
Schinus terebinthifolius var. *Aroeira* March. = *Schinus terebinthifolius* var. *rhoifolius* 28d
Schinus terebinthifolius var. *Damazianus* Beauv. = *Schinus terebinthifolius* 28
Schinus terebinthifolius var. *Glaziovianus* Engl. in Mart. = *Schinus terebinthifolius* var. *Pohlianus* 28b
Schinus terebinthifolius var. *Pohlianus* Engl. in Mart. 28b
Schinus terebinthifolius var. *Raddianus* Engl. 28c
Schinus terebinthifolius var. *rhoifolius* (Mart.) Engl. in Mart. 28d
Schinus terebinthifolius var. *Selloanus* Engl. in Mart. = *Schinus terebinthifolius* var. *Pohlianus* 28b
Schinus terebinthifolius var. *ternifolius* March. = *Lithraea ternifolius* (Gillies) Barkl.

- Schinus ternifolius* Gill. ep Hook. = *Lithraea ternifolius* (Gillies) Barkl.
Schinus tragodes L. = *Zanthoxylum tragodes* (L.) DC.
Schinus velutinus (Turcz.) Johnst. 19
Schinus Venturi Barkl. 17
Schinus weinmannifolius Mart. ex Engl. in Mart. 26
Schinus weinmannifolius var. *augustifolius* Barkl. = *Schinus weinmannifolius* var.
Hassleri 26c
Schinus weinmannifolius var. *angustifolius* Barkl. = *Schinus weinmannifolius* var.
Riedelianus 26a
Schinus weinmannifolius var. *dubius* Barkl. 26b
Schinus weinmannifolius var. Hassleri (Barkl.) Barkl. 26c
Schinus weinmannifolius var. *intermedius* Hassl. = *Schinus weinmannifolius* var.
Riedelianus 26a
Schinus weinmannifolius var. *intermedius* f. *paucijuga* Hassl. = *Schinus weinmanni-*
folius var. Riedelianus 26a
Schinus weinmannifolius var. *pauciflorus* Engl. in Mart. = *Schinus weinmannifolius* 26
Schinus weinmannifolius var. Riedelianus Engl. in Mart. 26a
Schinus weinmannifolius var. *Riedelianus* f. *glabrescens* Chod. & Hass. = *Schinus*
weinmannifolius var. Riedelianus 26a
Schinus weinmannifolius var. *Riedelianus* f. *pubescens* Chod. & Hassl. = *Schinus*
weinmannifolius var. *dubius* 26b