

SUPPLEMENTARY NOTES ON THE AMERICAN SPECIES  
OF STRYCHNOS. XII.

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Since the last serial paper (Supplement XI) was published 55 new collections were examined. These collections extend our knowledge of many species previously known from incomplete material. Extensions of ranges are reported for 9 species and one species, S. schunkei, is described as new. The chemical studies of bark of various species by Prof. Marini Bettolo and his associates continued. For the recent findings see under S. romeu-belenii.

3. Strychnos colombiensis Krukoff & Barneby, Mem. N. Y. Bot. Gard. 12(2):21. 1965.

Peru: Huanuco: Leoncio Prado, Dtto. Rupa Rupa, al oeste de Tingo Maria, en bosque alto, terreno con rocas calcáreas y con mucha sombra, alt. 680-700 m, Schunke 5135 (flrs. Nov. 23).

This is the first record of the species from Huanuco. (It has been known previously only from Cuzco). The collector states on the label: "liana 18-20 m".

5. Strychnos romeu-belenii Krukoff & Barneby, Mem. N. Y. Bot. Gard. 20(1):22. 1969.

In 11th Supplement (7e:234) we already reported on the isolation of a new indolinic alkaloid which has been isolated by Prof. Marini Bettolo and associates from the stem bark (Romeu Belem 3504) to which the structure of 11-methoxy-diabolone has been assigned. In the paper which has now appeared in print it is stated that it is most unusual for American spp. of Strychnos to have only one alkaloid present in large quantity. Usually they contain very complex alkaloid mixtures.

6. Strychnos rondeletiioides Spruce ex Bentham, Jour. Linn. Soc. 1:104. 1856.

French Guiana: basin of Rio Oyapock, Oldeman & Sastre 293 (P). Brazil: Amazonas: basin of Rio Purus, Rio Ituxi, Prance et al. 13865 (20 km above mouth), 13961 (vicinity of Labrea). Colombia: Vaupes: bank of Rio Kubiyu, Soejarto & Lockwood 2425 (COL).

This is the first record of the species from the basin of Rio Purus.

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7. Strychnos macrophylla Barbosa Rodrigues, Vellozia, ed. 2, 1:33, pl. 2, fig. A. 1891.

Brazil: Amazonas: basin of Rio Negro, vicinity of Manaus, Prance et al. 11539.

10. Strychnos brachiata Ruiz & Pavon, Fl. Per. 2:30. 1799.

Peru: San Martin: Mariscal Cáceres, Dtto. Tocache Nuevo, Schunke 5018, 5021.

Schunke 5021 is in flower and the other collection is in fruit. These collections are of considerable interest as they establish the first definite locality in Peru. We do not know where Ruiz & Pavon Peruvian specimens of this species were collected.

12. Strychnos panamensis Seemann, Bot. Voy. Herald 166. 1854.

Mexico: Jalisco: Villarreal da Puga 2935 (ENCB). Panama: Canal Zone: Barro Colorado Island, Croat 15073. Venezuela: Tachira: La Fria, Bernardi 7687 (VEN); Apure: Steyermark et al. 101681 (VEN), Mondolfi s. n. (Herb. #82474) (VEN).

This is the first record of the species from the State of Jalisco, Mexico and from the State of Tachira, Venezuela.

13. Strychnos tabascana Sprague & Sandwith, Kew Bull. 1927:128. 1927.

Mexico: Veracruz: mun. Totutla, F. Ventura A. 2984 (ENCB), 3548 (ENCB), 3554 (ENCB); Tabasco: Villahermosa, Comisión de Dioscórea 2721 (ENCB), 3704 (ENCB). Honduras: Copan: 2 km east of Copan Ruins, Molina & Molina 24800.

24. Strychnos jobertiana Baillon, Adansonia 12:367. 1879.

Brazil: Acre: basin of Rio Jurua, Serra do Moa, Prance et al. 12690.

This is the first record of the species from the State of Acre.

25. Strychnos pseudo-quina A. St. Hilaire, Mem. Mus. Paris 9: 340. 1822.

Brazil: São Paulo: munic. Botucatu, alt. 550 m, cerrado, Ilse S. Gottsberger s. n. (11/2-71), 65R1 (22/4-71).

28. Strychnos solimoesana Krukoff, Brittonia 4:280. 1942.

Brazil: Amazonas: basin of Rio Purus, Rio Apitua, tributary of Rio Purus, Prance et al. 13929.

Local names: "Ira" (Jamamadi Indians). Prance notes on the label: "Vicinity of Jamamadi Indian village, capoeira, shrub with arching scandent branches. Bark used as principal ingredient in arrow and blow-gun dart poison, mixed with Curarea toxicofera (Prance et al. 13931) ("Bicava"), Guatteria cf. megalophylla Diels (Prance et al. 13936) ("Boá"), and Fagara sp. (Prance et al. 13937) ("Balala").

This is the first record of the species from the basin of Rio Purus.

29. Strychnos froesii Ducke, An. Acad. Bras. Ci. 23:209. 1951.

Brazil: Amazonas: basin of Rio Negro, Rio Cuieras, forest on terra firme, Prance et al. 14962.

31. Strychnos peckii B. L. Robinson, Proc. Amer. Acad. 49:504. 1913.

Brazil: Mato Grosso: Harley 10842 (K) (12°49'S., 51°46'W., gallery forest), R. R. de Santos & R. Souza 1753 (K) (Rio Suiazinha, †290 km N. of Xavantina).

32. Strychnos erichsonii Richard Schomburgk, Reisen 3:1082, hyponym. 1848; Mart. Fl. Bras. 6(1):274. 1868.

Venezuela: Jacques Lizot 106 (VEN). Peru: San Martín: Mariscal Cáceres, Tocache Nuevo, Jose Schunke V. 4740 (F).

36a. Strychnos mitscherlichii Richard Schomburgk, Reisen 2:451. 1848, var. mitscherlichii.

Venezuela: Bernardi 7230 (VEN), 7339 (VEN).

36b. Strychnos mitscherlichii var. pubescentior Sandwith, Brittonia 3:91. 1938.

Brazil: Amazonas: basin of Rio Purus, Rio Ituxi, Prance et al. 14331. (Rio Curuquete, vicinity of cachoeira São Bento).

This is the first record of this variety from the basin of Rio Purus.

37. Strychnos solerederi Gilg, Bot. Jahrb. 25 (Beibl. 60):40. 1898.

Peru: San Martín: Mariscal Cáceres, Dto. Tocacho Nuevo, Schunke 4562.

This is the first record of this species from Peru.

39. Strychnos guianensis (Aublet) Martius, Syst. Mart. Med. Bras. 121. 1843.

Venezuela: Amazonas: Blanco 1085 (VEN). Brazil: Amazonas: basin of Rio Negro, Prance et al. 11617 (vicinity of Manaus), 15549 (Rio Uneiuxi, flooded savanna forest); Acre: basin of Rio Jurua, Cruzeiro do Sul, Prance et al. 12743. Peru: Huánuco: Leonicio Prado, Dtto. Rupa Rupa, Schunke 5216.

40. Strychnos glabra Sagot ex Progel, Mart., Fl. Bras. 6(1): 275. 1868.

French Guiana: Monte Atachi Bacca, de Granville B3847 (P).

41. Strychnos subcordata Spruce ex Bentham, Jour. Linn. Soc. 1: 106. 1856.

Brazil: Amazonas: basin of Rio Negro, vicinity of Manaus, Prance et al. 11578.

43. Strychnos panurensis Sprague & Sandwith, Kew Bull. 1927:132. 1927.

Brazil: Acre: basin of Rio Jurua, Aldeota between Poranguba and Papagaio, forest on terra firme, Prance et al. 13099, 13131.

52. Strychnos oiapocencis Froes, Bol. Técn. Inst. Agron. Norte 36:143. 1959.

French Guiana: Monte Atachi Bacca: de Granville 753 (P).

The specimen (Oldeman 2614) deposited at P has a weak solitary tendril opposed to a developed leaf. We previously thought that it was devoid of tendrils and spines.

53. Strychnos fendleri Sprague & Sandwith, Kew Bull. 1927:129. 1927.

Venezuela: Lara: R. F. Smith V4260 (VEN).

55. Strychnos rubiginosa DC., Prodr. 9:16. 1845.

Brazil: Paraná: campo cerrado 3 kms N of Campo Mourão, Lindeman & de Haas 4497.

65. Strychnos mattogrossensis S. Moore, Trans. Linn. Soc. II. 4:392. 1895.

Venezuela: Tachira: La Fria, A. Bernardi 7697 (VEN).

This is the first record of the species from Tachira.

69. Strychnos poeppigii Progel, Mart. Fl. Bras. 6(1):282. 1868.

Brazil: Amazonas: basin of Rio Purus, Prance et al. 13474 (opposite Labrea, varzea), 16362 (between Botafago and Lago Quati, varzea).

70. Strychnos tarapotensis Sprague & Sandw., Kew Bull. 1927:131. 1927.

Peru: San Martin: Mariscal Caceros, Schunke 3495 (Dtto. Campanilla), Schunke 3986, 4007, 4332, 4765 (F), (Dtto. Tocache Nuevo); Huanuco: Schunke 2540 (Pachitea, Dtto. Honoria), 2900 (Pachitea, Dtto. Puerto Inca), 5134 (Leoncio Prado, Dtto. Rupa Rupa).

Local names: "Chijilla", "Chija", "Naranjilla".

All collections are from spiny shrubs 1 to 6 m tall of high forest.

71. Strychnos schunkei Krukoff & Barneby sp. nov.

S. tarapotensis Sprague & Sandwith affinis et cum eo inflor-  
escentia terminali, foliis fere glabris, corollaeque forma  
similis, sed imprimis foliorum lamina saltem duplo majori  
5--12.5 (nec 2.3--6) cm longa, 3.5--4 (nec 1--3) cm lata  
abstans.

Macroscopic: petioles about 2 mm long; blades narrowly eli-  
ptic or elliptic-lanceolate (5) 7.5--12.5 cm long, 3.5--4 cm  
broad, narrowed at base, acuminate at apex, dull on both sur-  
faces and paler beneath, membranaceous to chartaceous, 3-pli-  
nerved with the inner pair opposite or alternate and diverging  
at 4--9 mm from base, reticulation obscure or faint on both sur-  
faces. Microscopic: branchlets, petioles and blades are essen-  
tially glabrous in all parts; leaf-blades not verrucular above  
or beneath, not barbate and usually without a membranaceous poc-  
ket beneath in axils of the inner principal nerves.

Inflorescence terminal, the puberulent peduncle less than 1  
cm long, compactly cymose, at young anthesis hemispherical, 1.7  
cm diam; pedicels of outer flowers of each cymule up to 0.5 mm,  
the central flower sessile; calyx glabrous externally,  $\pm$ 1 mm  
long, the broadly deltate-ovate, minutely ciliolate lobes up to  
0.7 mm long; corolla 2.6 mm long, glabrous externally except for  
papillate margins of lobes, the tube  $\pm$ 1.2 mm long, glabrous in-  
ternally, the ovate-triangular lobes  $\pm$ 1.4 mm long, thinly bar-  
bate in an ascending arc internally; filaments glabrous 0.5 mm  
long, inserted just below the sinuses of corolla-lobes; anthers  
0.8--0.9 mm long, the sacs minutely hispidulous at base.

Peru: San Martin: camino a Porongo (Uchiza), 450 m alt.,  
Jose Schunke V. 5763 (NY-holotype).

Shrub 2 m high, collected on Jan. 20, 1962 and devoid of  
 tendrils or spines.

Of 22 known species of sect. Breviflorae 10 species (S. fendleri, S. atlantica, S. rubiginosa, S. fulvotomentosa, S. acuta, S. brasiliensis, S. grayi, S. brachistantha, S. nigricans and S. cerradoensis) do not occur in the Amazon basin and of these only S. acuta resembles somewhat S. schunkei in its vegetative characters.

S. parviflora is immediately distinguished from S. schunkei as it has axillary inflorescences; S. poeppigii, S. schultesiana and S. malacosperma--as their calyx-lobes are linear-lanceolate, 2.5--3 mm long and glabrous; S. castelnaeana and S. progeliana--as their leaves beneath are densely pubescent; S. parvifolia--as its leaf-blades are conspicuously verrucular on nerves and veinlets and often subciliate; S. pachycarpa and S. neglecta--as their corolla-tubes are equal or longer than corolla-lobes; S. oiapocensis--as its inflorescences are congested and in spherical clusters even at anthesis; S. mattogrossensis--as its calyx-lobes are lanceolate to ovate-acuminate, 0.9--1.5 X 0.4--0.5 mm, corolla-tube 0.75--0.9 mm, anthers 0.55--0.6 mm long, leaf-blades beneath usually with membranaceous pockets in axils of the inner principal nerves and as it is a woody vine provided with tendrils and spines.

S. schunkei is related to S. tarapotensis from which it is immediately distinguished by much larger leaf-blades (they are 2.3--6 cm long and 1--2.8 cm broad) and usually have rather large membranaceous pockets beneath in axils of the inner principal nerves in the latter species).

#### BIBLIOGRAPHY

(In order to conserve space I am citing here only papers not cited in Supplements VII - XI).

- 7e. Krukoff, B. A. & R. C. Barneby. Supplementary notes on the American species of Strychnos XI. Phytologia 22(4):225-243. 1971.
- 110o. Marini Bettolo, G. B. et al. A new alkaloid of Strychnos. The occurrence of 11-methoxy-diaboline in Strychnos romeu-belenii Krukoff & Barneby. Gazzetta Chimica Italiana 101: 971-980. 1971.