

This variety differs from the typical form of the species in having its peduncles glabrous.

The variety is based on *Julian A. Steyermark* 75926 from wet soil of a large swamp in the east-central portion of the summit of Apácará-tepui, at 2450--2500 m. altitude, Chimantá Massif, Bolívar, Venezuela, collected on June 21 or 22, 1953, and deposited in the United States National Herbarium in Washington. The collector notes: "in dense clumps; leaves shorter than those of 75925".

LIPPIA LAMIANA (Mold.) Mold., comb. nov.

Lantana lamiana Mold., *Lilloa* 5: 413. 1940.

VITEX GIGANTEA var. *CONGESTIFLORA* Mold., var. nov.

Haec varietas a forma typica speciei inflorescentiis valde congestis pedunculis valde abbreviatis usque ad 5 mm. longis recedit.

This variety differs from the typical form of the species in its very congested inflorescences, the peduncles less than 1 cm. long.

The variety is based on *Robin B. Foster* 3858 from along the edge of a *cocha* near the settlement of Limoncocha, at 240 m. altitude, Napo, Ecuador, collected on September 27, 1977, and deposited in the Britton Herbarium at the New York Botanical Garden. The tree apparently comes into full anthesis while still leafless.

ADDITIONAL NOTES ON THE *ERIOCAULACEAE*. LXXXVIII

Harold N. Moldenke

ERIOCAULON QUINQUANGULARE L.

Additional & emended synonymy: *Leucocephala graminifolia* Roxb., Hort. Beng., imp. 1, 68. 1814. *Leucocephala graminifolia* Roxb., Fl. Ind. 3: 612 & 865. 1832. *Eriocaulon graminifolium* L. ex C. B. Robinson, Philip. Journ. Sci. Bot. 7: 415, in syn. 1912.

Additional & emended bibliography: J. F. Cmel. in L., Syst. Nat., ed. 13, imp. 1, 2: 206. 1791; Roxb., Hort. Beng., imp. 1, 68. 1814; LaMaout & Decne., Trait. Gén. Bot. 589. 1868; C. B. Robinson, Philip. Journ. Sci. Bot. 7: 415. 1912; Fyson, Journ. Ind. Bot. 2: 139, 204, & 259--260, fig. 1 & 2, pl. 9. 1921; Fyson, Indian Sp. Erioc. pl. 9. 1923; C. A. Gardn., Enum. Pl. Austral. Occid. 1: 17. 1930; Worsdell, Ind. Lond. Suppl. 1: 376. 1941; Savage, Cat. Linn. Herb. Lond. 21. 1945; Balapure, Journ. Bomb. Nat. Hist. Soc. 68: 374. 1971; Amaratunga, Ceyl. Journ. Sci. Biol. 12: 189. 1977; Babu, Herb. Fl. Dehra Dun 546 & 548. 1977; Monteiro-Scanavacca & Mazzoni, Revist. Bras. Bot. 1: 63. 1978; Sharma, Shetty, Vivekan., & Rathakrish., Journ. Bomb. Nat. Hist. Soc. 75: 38. 1978; Singh, Journ. Bomb. Nat. Hist. Soc. 75: 318. 1978; Holm, Pancho, Herberger, & Plucknett, Geogr. Atlas World Weeds 148. 1979; Mold., Phytologia 41: 453, 455, & 462. 1979; Monteiro, Giuliatti, Mazzoni, &

Castro, Bol. Bot. Univ. S. Paulo 7: 48. 1979; Roxb., Hort. Beng., imp. 2, 68. 1980; Mold., Phytol. Mem. 2: 208, 254, 256, 262, 268, 270, 272, 285, 292, 336, 403, 405, 409, 412, & 603--604. 1980; Mold., Phytologia 50: 260 & 262 (1982) and 53: 270, 279, & 280. 1983.

Additional & emended illustrations: LaMaout & Decne., Trait. Gén. Bot. 589. 1868; Fyson, Journ. Indian Bot. 2: 139, fig. 1 & 2, pl. 9. 1921; Fyson, Indian Sp. Erioc. pl. 9. 1923.

Balapure (1971) reports this species "quite common in moist places" in the Nagarjun hill forest, citing *Balapure 70631*, but Sharma and his associates (1978) refer to it as "rare" around Benna, at 1125 m. altitude, citing *Shetty 11953*. The Fadens report the "leaves often maroon-tinged". Babu (1977) reports the species common in moist grassy localities in the sal forest of the Dehra Dun section of India, flowering there from September to December, citing *Babu 34943 & 34943a*. Singh (1978) found it growing in tanks, lakes, puddles, ponds, and ricefields, flowering from December to April, but "not found along rivers or other streams". The Bremers encountered it at 100 feet altitude, in both flower and fruit in February. Cramer describes it as having the "stems 5-angled, the flowers ashy-white" and found it growing in shallow soil of rock hollows and "common and abundant in association with *Dopatrium nudicaule* in soggy ground among short grass", at sealevel to 90 m. altitude, flowering and fruiting in January and February. Sinclair reports it "common in marshy ground above sand dunes" in West Bengal, while Saldanha & Ramamoorthy encountered it only as an "occasional annual herb with needle-like leaves in full sun on moist soil in wet deciduous forests" in Mysore.

Other recent collectors describe *E. quinquangulare* as a common annual herb with white or "dirty-white" heads and pinkish or red leaves. They have found it growing in old paddy fields, in full sun exposure along streams, near marshes and drying-up ponds, and in moist fields after harvest, at 300--1070 m. altitude, in both flower and fruit in January, August, October, and December. Saldanha speaks of the heads as "dark" [in fruiting stage?].

Lecomte (1912) cites for this species only unnumbered collections made by Baudouin, by Germain, by Talmy, and by Thorel in Cochinchina [Vietnam].

Material of *E. quinquangulare* has been misidentified and distributed in some herbaria as *E. truncatum* Hamilt.

Additional citations: INDIA: Karnataka: *Ramamoorthy HFP.1255* (W--2797022); *Saldanha 12259* (W--2797020), *15203* (W--2797019), *15451* (W--2697021); *Saldanha & Ramamoorthy HFP.1195* (E--2317324). West Bengal: *J. Sinclair 3191* (W--2918902). SRI LANKA: *Bremer & Bremer 25* (W--2877163); *Cramer 5095* (W--2867785), *5096* (W--2867784); *Faden & Faden 77/194* (W--2877986); *Jayasuriya 1948* (E--2368436); *Soejarto 4841* (W--2888998); *Townsend 73/81* (Ac); *Wirawan 1026* (W--2923135).

ERIOCAULON QUINQUANGULARE var. *ELATIUS* Mold.

Additional bibliography: Mold., Phytologia 41: 453. 1979; Mold.,

Phytol. Mem. 2: 604. 1980.

ERIOCAULON QUINQUANGULARE var. *MARTIANUM* Wall.

Additional bibliography: Mold., *Phytologia* 41: 453. 1979; Mold., *Phytol. Mem.* 2: 268, 272, 403, & 604. 1980.

Additional citations: SRI LANKA: *Sumithraarachchi*, Austin, & Austin DBS.996 (W--2915590).

ERIOCAULON RAVENELII Chapm.

Additional synonymy: *Eriocaulon engleri* Ruhl. ex Mold., *Phytologia* 52: 128, in syn. 1982.

Additional bibliography: Kral in Godfrey & Wooten, *Aquat. Wetl. Pl. Southeast. U. S.* 504, 515, 516, & 518, fig. 299. 1979; Mold., *Phytologia* 41: 453. 1979; J. T. & R. Kartesz, *Check-list Vasc. Fl. 2*: 197. 1980; Mold., *Phytol. Mem.* 2: 17, 22, 403, & 604. 1980; Duncan & Kartesz, *Vasc. Fl. Ga.* 36. 1981; Wunderlin, *Guide Vasc. Pl. Cent. Fla.* 125. 1982.

Additional illustrations: Kral in Godfrey & Wooten, *Aquat. Wetl. Pl. Southeast. U. S.* 516, fig. 299. 1979.

Recent collectors have encountered this plant in wet soil between clumps of sawgrass and in moist prairie openings between trees in pine flatwoods, in both flower and fruit in January.

Wunderlin (1982) refers to it as "Occasional; scattered localities" in wet pine flatwoods and swamps, flowering in "Summer".

The *Muenschler & Muenschler 14057*, distributed as *E. ravenelii*, actually is *Lachnocaulon glabrum* Körn.

Additional citations: FLORIDA: Collier Co.: *Lakela 31686* (Ne--53071, Ne--53072). Dade Co.: *Ware & Beck 4055* (Ne--97224). Highlands Co.: *Stoutemire 1703* (Mi). Lee Co.: *R. Kral 22923* (Go). MOUNTED ILLUSTRATIONS: Kral, *Sida 2*: 294. 1966 (Ld); Kral in Godfrey & Wooten, *Aquat. Wetl. Pl. Southeast. U. S.* fig. 299. 1979 (Ld).

ERIOCAULON RECURVIFOLIUM C. H. Wright

Additional bibliography: Mold., *Phytologia* 33: 10. 1976; Mold., *Phytol. Mem.* 2: 220 & 604. 1980.

ERIOCAULON REDACTUM Ruhl.

Additional synonymy: *Eriocaulon sieboldianum* sensu Hook. ex Bennet, *Fl. Howrah 99*, in syn. 1976 [not *E. sieboldianum* L., 1965, nor Sieb., 1966, nor Sieb. & Zucc., 1858, nor "Sieb. & Zucc. ex Steud.", 1966, nor Steud., 1894].

Additional bibliography: Hook. f., *Fl. Brit. India* 6: 577. 1893; Bennet, *Sci. Cult.* 33: 121. 1967; Bennet, *Fl. Howrah 99*. 1976; Mold., *Phytologia* 34: 488. 1976; Mold., *Phytol. Mem.* 2: 262, 285, & 604. 1980.

Bennet (1976), citing his *no. 1040*, avers that this species is "Common in paddy-fields with a thin layer of water or without water: occasionally in other swampy areas" and gives the overall distribution as "General; common", flowering from

September to November. He notes that "Ruhland followed by Moldenke treats this species [as] distinct from *E. sieboldianum* Sieb. & Zucc.; though Fyson (J. Ind. Bot. Soc. 3: 15--16. 1923) treats them as conspecific."

ERIOCAULON REGNELLII Mold.

Additional bibliography: Mold., *Phytologia* 24: 496. 1972; Mold., *Phytol. Mem.* 2: 142 & 604. 1980.

ERIOCAULON REITZII Mold. & Sm.

Additional bibliography: Mold., *Phytologia* 36: 487--488. 1977; Klein, *Sellowia* 31: 131 (1979) and 32: 312. 1980; Angely, *S. Am. Bot. Bibl.* 2: 679. 1980; Mold., *Phytol. Mem.* 2: 142 & 604. 1980.

ERIOCAULON REMOTUM H. Lecomte

Additional bibliography: Mold., *Phytologia* 41: 453--454. 1979; Mold., *Phytol. Mem.* 2: 207, 208, 401, & 604. 1980.

ERIOCAULON RITCHIEANUM Ruhl.

Additional bibliography: Fyson, *Journ. Indian Bot.* 2: 139, fig. 9. 1921; Fyson, *Indian Sp. Erioc.* pl. 43 & 44. 1923; Anon., *Kew Bull. Gen. Index* 111. 1959; Worsdell, *Ind. Lond. Suppl.* 1: 375. 1941; Mold., *Phytologia* 33: 10, 18, & 19. 1976; Mold., *Phytol. Mem.* 2: 262, 401, 402, & 604. 1980.

Additional illustrations: Fyson, *Journ. Indian Bot.* 2: 139, fig. 9. 1921; Fyson, *Indian Sp. Erioc.* pl. 41. 1923.

Additional citations: MOUNTED CLIPPINGS: Fyson, *Journ. Indian Bot.* 3: 13. 1922 (W).

ERIOCAULON ROBINSONII Mold.

Additional bibliography: Mold., *Phytologia* 34: 488. 1976; Mold. *Phytol. Mem.* 2: 292 & 604. 1980.

ERIOCAULON ROBUSTIUS (Maxim.) Mak.

Additional bibliography: Mak., *Illust. Fl. Jap.* [725]. 1924; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Mold., *Phytologia* 36: 488. 1977; Holm, Pancho, Herberger, & Plucknett, *Geogr. Atlas World Weeds* 148. 1979; Mold., *Phytol. Mem.* 2: 198, 278, 299, 301, 303, 304, 403, & 604. 1980; Bartholomew & al., *Journ. Arnold. Arb.* 64: 95. 1983; Mold., *Phytologia* 53: 266. 1983.

Additional illustrations: Mak., *Illust. Fl. Jap.* [725]. 1924; Mak., *Illust. Fl. Nipp.* 772, fig. 2314. 1940.

Recent collectors have found this plant growing in wet rice-fields and dried-up paddy-fields, at 1500 m. altitude, in both flower and fruit in October.

Material has been misidentified and distributed in some herbaria as *E. buergerianum* Körn. On the other hand, the 1980 *Sino-Amer. Exped. 1187*, distributed as *E. robustius*, actually is *E. alpestre* Hook. f. & Thoms.

Additional citations: CHINA: Hupeh: 1980 *Sino-Amer. Exped.* 2061 (N). JAPAN: Honshu: Hashimoto 850 (M); Iwatsuki & Koyama 792 (N); Murata 19689 (N), 20853 [Pl. Jap. Exsicc. 995] (N);

Togasi 915 (Mi). MOUNTED ILLUSTRATIONS: Mak., *Illust. Fl. Nipp.* 772, fig. 2314. 1940 (Ld).

ERIOCAULON ROBUSTIUS var. *NIGRUM* Satake

Additional bibliography: Mold., *Phytologia* 24: 497. 1972; Mold., *Phytol. Mem.* 2: 301 & 604. 1980.

ERIOCAULON ROBUSTIUS var. *PERPUSILLUM* (Nakai) Satake

Additional bibliography: Mold., *Phytologia* 24: 497. 1972; Mold., *Phytol. Mem.* 2: 301 & 604. 1980.

ERIOCAULON ROBUSTO-BROWNIANUM Ruhl.

Additional & emended bibliography: Fyson, *Journ. Indian Bot.* 2: 264--266, pl. 18. 1921; Fyson, *Indian Sp. Erioc.* 41, pl. 18. 1923; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Anon., *Kew Bull. Gen. Index* 111. 1959; Hocking, *Excerpt. Bot. A.* 23: 292 & 389. 1974; Mold., *Phytologia* 41: 454. 1979; Mold., *Phytol. Mem.* 2: 262, 268, 272, 285, 403, & 604. 1980; Mold., *Phytologia* 53: 335 & 347. 1983.

Additional & emended illustrations: Fyson, *Journ. Indian Bot.* 2: 265, pl. 18. 1921; Fyson, *Indian Sp. Erioc.* 41, pl. 18. 1923.

Recent collectors refer to this species as a common, aquatic, marshy herb with white heads. They have encountered it in wet deciduous forests, in flower in February and May and in fruit in February, May, and November. Saldanha notes (on his no. 15632) "locally common marshy herbs to 5 ft."

Material of *E. robusto-brownianum* has been misidentified and distributed in some herbaria as *E. polycephalum* Hook. f. On the other hand, the *Saldanha 12327*, distributed as *E. robusto-brownianum*, actually is *E. polycephalum* Hook. f.

Additional citations: INDIA: Karnataka: *Saldanha 13725* (W--2797018), *15632* (W--2797024), *16445* (W--2797017). MOUNTED CLIPPINGS & ILLUSTRATIONS: Fyson, *Journ. Indian Bot.* 2: 264. 1921 (W); Fyson, *Kew Bull. Misc. Inf.* 1914: 331. 1914 (W, W); Naik, *Journ. Indian Bot. Soc.* 52: 110, fig. 2. 1973 (Ld).

ERIOCAULON ROBUSTUM Steud.

Additional bibliography: Fyson, *Indian Sp. Erioc.* 47, pl. 29 & 30. 1923; Mak., *Gensyoku Yagai-shokubutu* [*Nature-Col. Wild Pl.*] 3: 193. 1933; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Mold., *Phytologia* 34: 489. 1976; Mold., *Phytol. Mem.* 2: 262, 285, & 604. 1980.

Additional illustrations: Fyson, *Indian Sp. Erioc.* 47, pl. 29 & 30. 1923; Mak., *Gensyoku Yagai-shokubutu* [*Nature-Col. Wild Pl.*] 3: 193 (in color). 1933.

Sinclair reports this species "rare" in moist rocky places on steep hillsides, in both flower and fruit in April.

Additional citations: INDIA: Tamil Nadu: *J. Sinclair 3436* (W--2918899).

ERIOCAULON ROCKIANUM Hand.-Mazz.

Additional bibliography: Mold., *Phytologia* 25: 69. 1972; Mold.,

Phytol. Mem. 2: 278 & 604. 1980.

ERIOCAULON ROLLANDII Rousseau

This taxon is now known as *E. pellucidum* f. *rollandii* (Rousseau) Mold., which see.

ERIOCAULON ROSEUM Fyson

Additional bibliography: Fyson, Journ. Indian Bot. 2: 139, 204, & 205, fig. 13. 1921; Fyson, Indian Sp. Erioc. 32. 1923; Worsdell, Ind. Lond. Suppl. 1: 376. 1941; Mold., Phytologia 29: 223. 1974; Mold., Phytol. Mem. 2: 272 & 604. 1980.

Additional & emended illustrations: Fyson, Journ. Indian Bot. 2: 139 & 205, fig. 13. 1921; Fyson, Indian Sp. Erioc. 32. 1923.

ERIOCAULON ROSULATUM Körn.

Additional bibliography: Mold., Phytologia 29: 223. 1974; Mold., Phytol. Mem. 2: 142 & 604. 1980.

ERIOCAULON ROUXIANUM Steud.

Additional bibliography: Mold., Phytologia 33: 11. 1976; Mold., Phytol. Mem. 2: 262 & 604. 1980.

ERIOCAULON RUBESCENS Mold.

Additional bibliography: Mold., Phytologia 25: 69. 1972; Mold., Phytol. Mem. 2: 115 & 604. 1980.

ERIOCAULON RUFUM H. Lecomte

Additional bibliography: Mold., Phytologia 41: 451 & 454. 1979; Mold., Phytol. Mem. 2: 207, 208, 403, & 604. 1980.

ERIOCAULON RUHLANDII Schinz

Additional bibliography: Mold., Phytologia 26: 36. 1973; Mold., Phytol. Mem. 2: 243, 245, & 604. 1980.

ERIOCAULON SACCATUM Van Royen

Additional bibliography: Mold., Phytologia 33: 11. 1976; Mold., Phytol. Mem. 2: 326 & 604. 1980.

ERIOCAULON SACHALINENSE Miyabe & Nakai

Additional bibliography: Mold., Phytologia 26: 36. 1973; Mold., Phytol. Mem. 2: 299 & 604. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Miyabe & Nakai, Bot. Mag. Tokyo 42: 479. 1928 (W); Satake, Bull. Tokyo Sci. Mus. 4: pl. 8, fig. 15. 1940 (Ld--photo of type).

ERIOCAULON SANTAPAU Mold.

Additional bibliography: Bole & Almeida, Journ. Bomb. Nat. Hist. Soc. 74: 227. 1977; Mold., Phytologia 41: 454. 1979; Mold., Phytol. Mem. 2: 262 & 604. 1980.

ERIOCAULON SATAKEANUM Tatew. & Itô

Additional bibliography: Mold., *Phytologia* 36: 488. 1977; Mold., *Phytol. Mem.* 2: 301 & 604. 1980.

ERIOCAULON SCARIOSUM J. E. Sm.

Additional & emended bibliography: Steud., *Syn. Pl. Glum.* 2: [Cyp.] 269, 270, 273, & 334. 1855; Rotherham, Briggs, Blaxwell, & Carolin, *Flow. Pl. N. S. Wales* 50 & 187, pl. 121. 1975; Mold., *Phytologia* 36: 488. 1977; Mold., *Phytol. Mem.* 2: 336, 339, 340, & 604. 1980.

Additional illustrations: F. M. Bailey, *Weeds Poison. Pl. Queensl.* 207. 1906; Rotherham, Briggs, Blaxwell, & Carolin, *Flow. Pl. N. S. Wales* 50, pl. 121 (in color). 1975.

Recent collectors have found this plant growing on "dripping rock face overlooking the sea in association with *Lobelia alata*, *Juncus planifolius*, *Hydrocotyle* sp., etc." at 20 m. altitude in New South Wales. In Queensland Paijmans reports it "locally common on moist sandy riverbanks" and "very common at the most inner edge of sandy lake shores", in both flower and fruit in August.

Additional citations: AUSTRALIA: New South Wales: *Coveny* 737 [Nat. Herb. N.S.W. 120948] (Ba). Queensland: *Paijmans* 2868 (E--2804469), 3040 (E--2804470). MOUNTED ILLUSTRATIONS: Beadle, Evans, Carolin, & Tindale, *Fl. Sydney Reg.*, ed. 2, fig. 49. 1972 (Ld).

ERIOCAULON SCHIEDEANUM KÙrn.

Additional bibliography: Mold., *Phytologia* 41: 455. 1979; Mold., *Phytol. Mem.* 2: 62 & 604. 1980.

Additional citations: MEXICO: Jalisco: *Pringle* 6146 in part (It).

ERIOCAULON SCHIMPERI KÙrn.

Additional & emended synonymy: *Eriocaulon volkensis* var. *mildbraedii* Ruhl., *Wiss. Ergebn. Deutsch. Zentralaf. Exped.* 2 (1): 57--58. 1910. *Eriocaulon schimperi* Engl. ex Mold., *Phytol. Mem.* 2: 403, in syn. 1980.

Additional bibliography: Ruhl., *Wiss. Ergebn. Deutsch. Zentralaf. Exped.* 2 (1): 57--58. 1910; Fedde & Schust., *Justs Bot. Jahresber.* 39 (2): 10. 1913; Mold., *Phytologia* 29: 223--224. 1974; Mold., *Phytol. Mem.* 2: 203, 220, 222--224, 226, 230, 235, 239, 403, & 604. 1980.

Ash refers to this species as having shiny light-green leaves, white flower-heads, and indigo-blue anthers, and reports it local in tufted groups in "seepage of tuff rocks and earth banks" associated with *Veronica glandulosa*, *Limosella africana*, etc. at 2400 m. altitude, flowering in June.

Additional citations: ETHIOPIA: *Ash* 2479 (W--2819900).

ERIOCAULON SCHIMPERI var. *GIGAS* Mold.

Additional bibliography: Mold., *Phytologia* 25: 71. 1972; Mold.,

Phytol. Mem. 2: 230 & 604. 1980.

ERIOCAULON SCHIPPPII Standl.

Additional bibliography: Mold., Phytologia 41: 455. 1979; Mold., Phytol. Mem. 2: 74, 233, & 604. 1980; Mold., Phytologia 50: 243. 1982.

Recent collectors refer to this plant as forming mats in charco and clear running streams 20 cm. to 1 m. deep, at 200 m. altitude, associated with *Juncus repens*, *Benjaminia fuirena*, and *Rhynchospora* sp. They describe it as a rooted annual, the submerged inflorescences black, the emergent ones white.

Additional citations: MEXICO: Tabasco: Cowan & Magana 3269 (N), 3273 (N). COSTA RICA: Guanacaste: Gómez-Laurito 7190 (So--83351). Puntarenas: W. W. Thomas 2324 (N).

ERIOCAULON SCHLECHTERI Ruhl.

Additional bibliography: Mold., Phytologia 29: 224. 1974; Mold., Phytol. Mem. 2: 235, 240, & 604. 1980.

ERIOCAULON SCHOCHIANUM Hand.-Mazz.

Additional bibliography: Mold., Phytologia 29: 224. 1974; Mold., Phytol. Mem. 2: 278 & 604. 1980.

Forrest refers to this plant as 3--6 inches tall, with gray "flowers", and found it growing in marshy pastures at 3000 m. altitude, in both flower and fruit in August.

Additional citations: CHINA: Yunnan: Forrest 11773 (Ba).

ERIOCAULON SCHOCHIANUM var. *PARVICEPS* Hand.-Mazz.

Additional bibliography: Mold., Phytologia 25: 71. 1972; Mold., Phytol. Mem. 2: 278 & 604. 1980.

ERIOCAULON SCHULTZII Benth.

Additional bibliography: Mold., Phytologia 41: 453 & 455. 1979; Mold., Phytol. Mem. 2: 336 & 604. 1980.

ERIOCAULON SCHWEICKERDTI Mold.

Additional bibliography: Mold., Phytologia 25: 71. 1972; Mold., Phytol. Mem. 2: 237 & 604. 1980.

ERIOCAULON SCLEROCEPHALUM Ruhl.

Additional bibliography: Mold., Phytologia 36: 488--489. 1977; Mold., Phytol. Mem. 2: 89, 91, & 604. 1980.

ERIOCAULON SCORPIONENSE Van Royen. Alpine Fl. N. Guin. 2: 841--843, fig. 285 F--0 [as "*scorpionensis*"]. 1979.

Synonymy: *Eriocaulon scorpionensis* Van Royen, Alpine F. N. Guin. 2: 842, sphalm. 1979.

Bibliography: Van Royen, Alpine Fl. N. Guin. 2: 825, 841--843, fig. 285 F--0. 1979; Mold., Phytologia 50: 254, 260, & 270. 1982.

This species is based on Croft & Hope LAE.65932 from Mount Scorpion, Territory of New Guinea, deposited in the herbarium of the Bishop Museum, Honolulu. It was collected in a cushion bog in al-

pine grasslands at 3500 m. altitude, in both flower and fruit in May and is known thus far only from the original collection.

Citations: MOUNTED ILLUSTRATIONS: Van Royen, *Alpine Fl. N. Cui.* 2: 841, fig. 285 F--O. 1979 (Ld)

ERIOCAULON SEDGWICKII Fyson

Additional bibliography: Fyson, *Indian Sp. Erioc. pl.* 16. 1923; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Mold., *Phytologia* 33: 12. 1976; Mold., *Phytol. Mem.* 2: 262 & 604. 1980.

Additional illustrations: Fyson, *Indian Sp. Erioc. pl.* 16. 1923.

The *Padhye* 9, distributed as *E. sedgwickii*, actually is *E. xeranthemum* Heyne.

Additional citations: MOUNTED CLIPPINGS: Fyson, *Journ. Indian Bot.* 2: 260. 1921 (W).

ERIOCAULON SEEMANNII Mold.

Additional bibliography: Mold., *Phytologia* 36: 489. 1977; F. C. Seymour, *Phytol. Mem.* 1: 85. 1980; Mold., *Phytol. Mem.* 2: 62, 75, 78, 83, & 604. 1980; Mold., *Phytologia* 50: 243 (1982) and 53: 293. 1983.

Recent collectors describe this plant as an annual or perennial herb, 10--20 cm. tall, with whitish "flowers" or flower-heads. They have found it growing in sandy soil of primary oak woods, "disperse en el lodo del charco con *Eragrostis*, *Utricularia*, *Juncus repens* (escasa) en suelo arenoso-arcilloso, sabana, pastizal", at 200--2100 m. altitude, in anthesis in July, and in both flower and fruit in February, March, and November. Cowan refers to the plant as an "hierba perenne acuática, sumergida arraigada 3--4 cm., escasa con flor entre pastos y *Cyperaceae* en la playa del charco, no sumergida cuando florea" and also as an herb, 20--30 cm. tall, common in water with *Utricularia*, *Xyris*, and *Rynchospora*.

The "Cabo Gracias a Dios" records previously listed by me are really from Zelaya (Nicaragua), since the cape region is officially included in that province. Seymour (1980) cites Atwood 3611 and Seymour 3677 from Zelaya.

Material of *E. seemannii* has been misidentified and distributed in some herbaria as "*E. ehrenbergianum* Klotz ex Koern."

Additional citations: MEXICO: Tabasco: C. Cowan 2665 (Ld), 2781 (Ld); Magaña & Cowan in Cowan 2836 (Ld, N). Veracruz: Fay, Byrne, & Calzada 873 (N, W--2879271). NICARAGUA: Zelaya: F. C. Seymour 3611 (Ft), 3677 (Ld, N); W. D. Stevens 10384 (Ld). COSTA RICA: Guanacaste: Gómez-Laurito 7170 (So--83524).

ERIOCAULON SEKIMOTOI Honda

Additional bibliography: Mold., *Phytologia* 26: 36--37. 1973; Mold., *Phytol. Mem.* 2: 301 & 604. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Satake, *Bull. Tokyo Sci. Mus.* 4: pl. 11, fig. 22. 1940 (Ld--photo of type).

ERIOCAULON SEKIMOTOI f. *GLABRUM* Satake

Additional bibliography: Mold., *Phytologia* 25: 72. 1972; Mold., *Phytol. Mem.* 2: 301 & 604. 1980.

ERIOCAULON SELLOWIANUM Kunth

Additional bibliography: Correa, *Dicc. Pl. Uteis Bras.* 1: 349. 1926; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Mold., *Phytologia* 41: 455. 1979; Angely, *S. Amer. Bot. Bibl.* 2: 679. 1980; Mold., *Phytol. Mem.* 2: 142, 177, 186, 353, 400, 403, & 604. 1980.

Additional illustrations: Correa, *Dicc. Pl. Uteis Bras.* 1: 349. 1926.

Frenzel says of this plant: "flores escranquicadas, pétalos pretas", found it flowering in March, and distributed it as *Paepalanthus* sp. Recent collectors have encountered it in deep, wet, humus muck, describing the "bracts and flowers white".

Additional citations: BRAZIL: Goiás: *Gates & Estabrook* 54 (N). Paraná: *Dombrowski* 9420 (Ld); *Frenzel* 738 (Eu--4762). ARGENTINA: Corrientes: *Krapovickas, Cristóbal, Maruñan, Mroginski, Pira, & Pueyo* 21273 (N).

ERIOCAULON SELLOWIANUM var. *LONGIFOLIUM* Mold.

Additional bibliography: Mold., *Phytologia* 36: 489. 1977; Mold., *Phytol. Mem.* 2: 142, 177, 186, & 604. 1980.

Recent collectors have encountered this plant in brejo and in boggy depressions, in anthesis in March and November and in both flower and fruit in October. Héring and his associates refer to it as growing to 20 cm. tall. Tessmann says of it: "anteras preto, nao raro em lugares pantanosos", the flower-heads white.

Additional citations: BRAZIL: Goiás: *Héring, Paula, Mendonça, & Salles* 2308 (N). Paraná: *Dombrowski & Neto* 333 (Ld); *Hatschbach* 41881 (Ld); *Kummrow* 1627 (Ld); *Tessmann* 73 (Eu--4764).

ERIOCAULON SELLOWIANUM var. *MINOR* Mold.

Additional bibliography: Mold., *Phytologia* 33: 13. 1976; Mold., *Phytol. Mem.* 2: 142, 400, & 604. 1980.

ERIOCAULON SELLOWIANUM var. *PARANENSE* (Mold.) Mold. & Sm.

Additional bibliography: Mold., *Phytologia* 41: 455. 1979; Angely, *S. Amer. Bot. Bibl.* 2: 679. 1980; Mold., *Phytol. Mem.* 2: 142, 177, 402, 403, 426, & 604. 1980.

Tessmann says of this plant: "conjunto de flores branco, anteras preto-esverdeadas" and found it growing on campos, in flower in December.

Additional citations: BRAZIL: Paraná: *Tessmann* 328 (Eu--4765).

ERIOCAULON SENEGALENSE N. E. Br.

This species is now regarded as synonymous with *E. plumale* N. E. Br.

ERIOCAULON SENILE Honda

Additional bibliography: Mold., *Phytologia* 29: 226. 1974; Mold., *Phytol. Mem.* 2: 301, 303, & 604. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Honda, *Bot. Mag. Tokyo* 42: 507. 1928 (W); Satake, *Bull. Tokyo Sci. Mus.* 4: pl. 3, fig. 5. 1940 (Ld--photo of type).

ERIOCAULON SENILE f. *PILOSUM* T. Koyama

Additional bibliography: Mold., *Phytologia* 25: 73. 1972; Mold., *Phytol. Mem.* 2: 301 & 604. 1980.

ERIOCAULON SESSILE Meikle

Additional synonymy: *Eriocaulon diaguissance* R. Bourdu, *Bull. Soc. Bot. France* 104: 157, fig. D--F. 1957.

Additional bibliography: Anon., *Kew. Bull. Gen. Index* 111. 1959; Mold., *Phytologia* 41: 456. 1979; Mold., *Phytol. Mem.* 2: 207, 217, 401, & 604. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Bourdu, *Bull. Soc. Bot. France* 104: 157, fig. A--F. 1957 (Ld).

ERIOCAULON SETACEUM L.

Additional & emended bibliography: J. F. Gmel. in L., *Syst. Nat.*, ed. 13, imp. 1, 2: 206. 1791; Domin, *Ann. Jard. Bot. Buitenz.* 24 [ser. 2, 9]: 247. 1911; Arber, *Bot. Gaz.* 74: 84. 1922; C. A. Gardn., *Enum. Pl. Austral. Occid.* 1: 17. 1930; Fyson, *Indian Sp. Erioc.* pl. 1. 1923; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Savage, *Cat. Linn. Herb. Lond.* 21. 1945; Anon., *Kew. Bull. Gen. Index* 111. 1959; Giulietti, *Bol. Bot. Univ. S. Paulo* 6: 44. 1978; Hocking, *Excerpt. Bot.* A.31: 16. 1978; Erickson, George, Marchant, & Morcombe, *Flow. Pl. West. Austr.*, ed. 2, 176, 219, & 225, pl. 565. 1979; Holm, Pancho, Herberger, & Plucknett, *Geogr. Atlas World Weeds* 148. 1979; Mold., *Phytologia* 41: 456. 1979; Mold., *Phytol. Mem.* 2: 262, 268, 270, 272, 274, 275, 285, 292, 336, 402, 403, 435, 446, & 604. 1980; Mold., *Phytologia* 50: 252. 1982.

Additional illustrations: Fyson, *Indian Sp. Erioc.* pl. 1. 1923; Erickson, George, Marchant, & Morcombe, *Flow. Pl. West. Austral.*, ed. 2, pl. 565 (in color). 1979.

Collectors in Australia describe this plant as "frequent in fast-flowing water of sandy creeks, more or less floating, rooting in sand, the inflorescence dark-gray", and have found it in both flower and fruit in March. Lecomte (1912) cites for it only an unnumbered collection of Lecomte & Finet from Annam and one of Thorel from Cochinchina (Vietnam).

Recent collectors have also encountered this species on pine savannas, at 1300 m. altitude, in Thailand.

Additional citations: THAILAND: *Niyondham & O'Connor 15751* (N). AUSTRALIA: Northern Territory: *Lazarides & Adams 218* (W--2900309). Western Australia: *Symon 12069* [Herb. White Inst. 54862] (Ba--388403).

ERIOCAULON SETACEUM var. *CAPILLUS-NAIADIS* (Hook. f.) Mold.

Additional bibliography: Hundley & Ko in Lace, *List Trees Shrubs*

Burma, ed. 3, 293. 1961; Mold., *Phytologia* 41: 456. 1979; Mold., *Phytol. Mem.* 2: 268, 272, 283, 400, 403, & 604. 1980; Mold., *Phytologia* 50: 252. 1982.

Recent collectors refer to this plant as an aquatic growing in ponds on pine savannas, only the flowers emergent above the surface of standing water, at 1300 m. altitude, in anthesis in March. Geesink and his associates encountered it in *Melaleuca* savannas on a limestone plateau in Thailand.

Additional citations: THAILAND: Geesink, Hattink, & Phengkklai 6571 (Ac); Niyondham & O'Connor 15721 (Ac),

ERIOCAULON SETICUSPE Ohwi

Additional bibliography: Mold., *Phytologia* 41: 456--457. 1979; Mold., *Phytol. Mem.* 2: 301 & 604. 1980.

Additional citations: JAPAN: Kiushu: *Togasi 1415* (Mi).

ERIOCAULON SEXANGULARE L.

Additional & emended synonymy: *Eriocaulon wallichianum* Heyne ex Mart. in Wall., *Pl. Asiat. Rar.* 3: 27. 1832. *Eriocaulon wallichianum* f. *submersum* Arber, *Bot. Gaz.* 74: 84 & 94. 1922. *Eriocaulon wallichianum* f. *submersa* Arber, *Monocot.* 88 & 251. 1925. *Eriocaulon wallichianum submersum* Auct. apud Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941. *Eriocaulon wallichianum* Mart. ex Hu, *Enum. Chin. Mat. Med.* 54 & 196, sphalm. 1981.

Additional bibliography: J. Burm., *Thes. Zeyl.* 108-109. 1737; J. F. Gmel. in L., *Syst. Nat.*, ed. 13, imp. 1, 2: 206. 1791; G. Don in Sweet, *Hort. Brit.*, ed. 3, 633. 1839; Hayata, *Icon. Pl. Formos.* 10: 54. 1921; E. D. Merr., *Bibl. Enum. Born. Pl.* 110. 1921; Arber, *Bot. Gaz.* 74: 94, pl. 2, fig. 19 C & E. 1922; Fyson, *Journ. Indian Bot.* 2: pl. 39 & 40. 1922; Fyson, *Indian Sp. Erioc.* pl. 39 & 40. 1923; Arber, *Monocot.* 88 & 251, fig. 66 C & E. 1925; C. E. C. Fischer, *Kew Bull. Misc. Inf.* 1930: 159. 1930; E. D. Merr., *Sunyatsenia* 1: pl. 1. 1930; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Savage, *Cat. Linn. Herb. Lond.* 21. 1945; Chopra, Nayar, & Chopra, *Gloss. Indian Med. Pl.* 109. 1956; Hundley & Ko in Lace, *List Trees Shrubs Burma*, ed. 3, 293. 1961; Lourteig, *Taxon* 15: 31. 1966; Amaratunga, *Ceyl. Journ. Sci. Biol.* 12: 189. 1977; Chang, *Fl. Taiwan* 5: [179] & 187--188. 1978; Mold., *Phytologia* 41: 457. 1979; Fosberg & Canfield, *Micronesica* 16: 194. 1980; Fosberg, Otobed, Sachet, Oliver, Powell, & Canfield, *Vasc. Pl. Palau* 12. 1980; Mold., *Phytol. Mem.* 2: 250, 252, 262, 268, 270, 272, 275, 278, 281, 283, 285, 289, 290, 292, 296, 298, 303, 304, 307, 314, 353, 404, & 605. 1980; Hu, *Enum. Chin. Mat. Med.* 54 & 196. 1981; Mold., *Phytologia* 50: 253 & 260 (1982) and 53: 277. 1983.

Additional illustrations: Hayata, *Icon. Pl. Formos.* 10: 54. 1921; Arber, *Bot. Gaz.* 74: 94, pl. 2, fig. C & E. 1922; Arber, *Monocot.* 88, fig. 19 C & E. 1925; E. D. Merr., *Sunyatsenia* 1: pl. 1. 1930.

Chang (1978) gives the distribution of this species as the Ryukyu Islands, China, India, Sri Lanka, Burma, Indochina, Malaysia, and Africa. On Taiwan he says it occupies marshes. He

cites Hsu 27329, Odashima 144523, Suzuki 27317, and Tanaka 27295. Huber states that in Sri Lanka it occurs as "a weed in unplowed paddy fields", at 40 m. altitude, flowering and fruiting in September, and known locally as "kok mota". Hu (1981) lists the vernacular names, "ku-ching ts'ao", "ku-ching-tzü", and "ku-chu", applied both to this species and to *E. duergerianum* KBrn. He states that *E. sexangulare* occurs in the Chinese materia medica as "Scapus Eriocaulonis". Chopra and his associates (1956) also aver that it is employed as a drug in China. In India, they say, it occurs in the Deccan Peninsula from Kanara southward.

Other recent collectors have found *E. sexangulare* growing on open sandy grasslands and at the edges of reservoirs, at 30 m. altitude, in both flower and fruit in August, October, and November. Geesink and his associates encountered it in *Melaleuca* forests on a sandstone plateau in Thailand. Fosberg reports it "common locally in damp *Sphagnum*" in Madagascar. Ahmed found it growing among 3-foot-tall grasses in fresh water in Singapore, describing the flowers as white in February. In Hong Kong the Woos refer to it as "one of the commonest components in freshwater swamps", describing it as caespitose, the leaves bluish-green, and the inflorescences white to grayish-white.

Lecomte (1912) cites for this species only unnumbered collections on Lecomte & Finet from Annam, of Lecomte & Finet and of Pierre from Cochinchina, and of Balansa, of Bon, and of Muret from Tonkin, Vietnam.

Material of *E. sexangulare* is very often misidentified and distributed in herbaria as the very similar *E. longifolium* Nees [= *E. willdenovianum* Mold.]. On the other hand, the Suzuki 23 & s.n., distributed as *E. sexangulare* and so cited by me in a previous installment of these notes, seem better placed as representing *E. australe* R. Br., while Bremer & Bremer 816, Congdon 989, Koyama & al. 15229, and Sinclair 8732 seem to be *E. willdenovianum* Mold.

Additional citations: MADAGASCAR: Fosberg 52575 (W--2922704). SRI LANKA: Huber 299 (W--2891324). HONG KONG: Hu 7949 (Mi); Taam 1547 (Mi); Woo & Woo 873 (Mi). THAILAND: Geesink, Hattink, & Phengklai 6554 (Ac), 6563 (Ac); Geesink, Hiesko, & Charoenphol 7543 (Ac); Shimizu, Toyokuni, Koyama, Yahara, & Niyondham T.26264 (Ac). MALAYA: Singapore: Ahmad SA.1407 (Ac); J. Sinclair 4977 (W--2937280). RYUKYU ARCHIPELAGO: Iriomote: Gressitt 550 (Mi). TAIWAN: Odashima s.n. [Tanaka & Shimada 13575] (Mi). LOCALITY OF COLLECTION UNDETERMINED: Blackburn s.n. (E--2133719). MOUNTED CLIPPINGS & ILLUSTRATIONS: Hook. f., Curtis Bot. Mag. 120: pl. 7391. 1894 (Ld); Hayata. Icon. Pl. Formos. 10: 55. 1921 (W); M. R. Henderson, Malay. Wild. Fls. Morocot., imp. 2, 212, fig. 127. 1974 (Ld); Keng, Ord. Fam. Malay. Seed Pl. 313, fig. 183. 1969 (Ld); Koidz., Bot. Mag. Tokyo 28: 171. 1914 (W); Kunth, Enum. Pl. 3: 564 & 566. 1841 (W, W); E. D. Merr., Sunyatsenia 1: pl. 1. 1930 (Ba); Mold. in Humbert, Fl. Madag. 36: [23], fig. 3 (1). 1955 (Ld); Wall., Pl. Asiat. Rar. 3: 27. 1832 (W).

ERIOCAULON SEXANGULARE var. *MICRONESICUM* Mold., *Phytologia* 43: 355. 1979.

Synonymy: *Eriocaulon sexangulare* var. *miconesica* Mold., *Phytologia* 50: 260, in syn. 1982.

Bibliography: Mold., *Phytologia* 43: 355. 1979; Fosberg & Canfield, *Micronesica* 16: 194. 1980; Fosberg, Otobed, Sachet, Oliver, Powell, & Canfield. *Vasc. Pl. Palau* 12. 1980; Mold., *Phytol. Mem.* 2: 311 & 605. 1980; Mold., *Phytologia* 50: 253 & 260. 1982.

Collectors have found this plant growing in and about puddles in roads through savannas, at 5--30 m. altitude, in both flower and fruit in July, September, and November, describing it as a caespitose herb, 25--30 cm. tall, with bright-green basal leaves and white flower-heads. Evans reports it "locally common in seasonal rainwater pools on savannas". The Cushings refer to it as occurring in "occasional clumps at the edges of mud puddles". Fosberg found it "very local in wet spots on savannas", while Canfield says that it is an "uncommon herb in lignified clay on exposed old roads", growing there in association with *Gleichenia*, *Isachne*, *Eragrostis*, *Utricularia*, and *Burmanna*. The vernacular name, "kai", is recorded for it.

The Volkens collections, cited below, were previously incorrectly cited as *E. willdenovianum* Mold.

Fosberg & Canfield (1980) cite the additional *Hosokawa* 7228, *Kanehira* [1935], and *Stone* 4626 from the Palau Islands.

Citations: PALAU ISLANDS: Babeldaob: *Canfield* 339 (W--2850829); *Otobed* P.10143 (Ld--photo of type, W--2850824--type). Nekken: *Fosberg* 50606 (W--2850828). Yap: *M. V. Cushing* 431 (W--2850827); *Cushing & Cushing* 356 (W--2850826); *M. Evans* 283 (W--2850825); *Volkens* 406 (W--617490, W--775970).

ERIOCAULON SEXANGULARE f. *VIVIPARUM* Mold.

Additional bibliography: Mold., *Phytologia* 29: 229--230. 1974; Mold., *Phytol. Mem.* 2: 268, 296, & 605. 1980.

Recent collectors describe this plant as having the "heads globose, white, bulbils usually growing out of the top" and have found it growing in shallow water or protected places, often by *Pandanus* clumps", in both flower and fruit in November.

Additional citations: MALAYA: Pahang: *Stone & Mahmud* 12313 (W--2853601).

ERIOCAULON SIAMENSE Mold.

Additional bibliography: Mold., *Phytologia* 25: 75--76. 1972; Mold., *Phytol. Mem.* 2: 285 & 605. 1980.

Recent collectors have encountered this plant in thin layers of humus in sandy places on sandstone savannas, at 1100--1300 m. altitude, in both flower and fruit in November and December, describing it as having "basal rosettes and sheaths red, flower-heads ["glomerules"] white".

Additional citations: THAILAND: *Beusekom, Phengkhilai, Geesink, & Wongwan* 4567 (Ac, E--2384870, W--2902896), 4571 (Ac, E--2384875); *Charoenphol, Larsen, & Warncke* 4800 (E--2368144).

ERIOCAULON SIGMOIDEUM C. Wright

Additional bibliography: Mold., *Phytologia* 36: 490. 1977;
Mold., *Phytol. Mem.* 2: 89, 91, 403, & 605. 1980.

ERIOCAULON SIKOKIANUM Maxim.

Additional bibliography: Mak., *Illust. Fl. Jap.* [725]. 1924;
Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Mold., *Phytologia* 34:
492. 1976; Mold., *Phytol. Mem.* 2: 299, 301, & 605. 1980.

Additional illustrations: Mak., *Illust. Fl. Jap.* [725]. 1924.
Additional citations: MOUNTED ILLUSTRATIONS: Mak., *Illust. Fl.*
Nipp. 772, fig. 2315. 1940 (Ld).

ERIOCAULON SIKOKIANUM var. *MATSUMURAE* (Nakai) Satake

Additional bibliography: Mold., *Phytologia* 25: 76. 1972; Mold.,
Phytol. Mem. 2: 301 & 605. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Nakai,
Bot. Mag. Tokyo 24: 5. 1910 (W); Satake, *Bull. Tokyo Sci. Mus.* 4:
pl. 5, fig. 9. 1940 (Ld--photo of type).

ERIOCAULON SILICICOLA Ridl.

Additional bibliography: Mold., *Phytologia* 25: 76. 1972; Mold.,
Phytol. Mem. 2: 296 & 605. 1980.

ERIOCAULON SILVEIRAE Mold.

Additional bibliography: Mold., *Phytologia* 25: 76--77. 1972;
Mold., *Phytol. Mem.* 2: 142 & 605. 1980; Angely, *S. Amer. Bot.*
Bibl. 2: 669. 1980.

Additional citations: MOUNTED CLIPPINGS: Alv. *Silv., Fl. Mont.*
1: 15--16. 1928 (Ld, N, W).

ERIOCAULON SINGULARE Mold., *Phytologia* 48: 253 & 254, fig. 1. 1981.

Bibliography: Mold., *Phytologia* 48: 253 & 254, fig. 1 (1981),
50: 247 & 270 (1982), and 53: 322. 1983.

Illustrations: Mold., *Phytologia* 48: 254, fig. 1. 1981.

The Macedo collection which forms the basis for this species
was previously incorrectly reported by me as *E. macrobolax* Mart.,
but Martius gives no indication in his description (nor do Körn-
nicke or Ruhland) that *E. macrobolax* has a compound capitulum as
does *E. singulare*. The general appearance and habit of the two
taxa, however, are strikingly similar and one wonders if these
previous authors perhaps missed this distinctive character not
otherwise known in the genus *Eriocaulon*, but which is seen well
in *Paepalanthus planifolius* (Bong.) Körn. and its varieties.
Eriocaulon singulare has been found growing in brejo.

Citations: BRAZIL: Minas Gerais: Macedo 2589 (N--type), 2620
(N). Paraná: Gottsberger & Poelt s.n. [21.7.1979] (Gr--196-80,
Gr). MOUNTED ILLUSTRATIONS: Mold., *Phytologia* 48: 254, fig. 1.
1981 (Ld).

ERIOCAULON SINII Ruhl.

Additional bibliography: Mold., *Phytologia* 26: 39. 1973; Mold.,
Phytol. Mem. 2: 278, 281, & 605. 1980.

ERIOCAULON SMITINANDI Mold.

Additional bibliography: Mold., *Phytologia* 41: 457. 1979; Mold., *Phytol. Mem.* 2: 285 & 605. 1980.

ERIOCAULON SOLLYANUM Royle

Additional & emended bibliography: Fyson, *Journ. Indian Bot.* 2: 139, 150, 206, 260, & 320, fig. 3, pl. 10. 1921; Fyson, *Indian Sp. Erioc.* pl. 10. 1923; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Bennet, *Fl. Howrah* 99. 1976; Babu, *Herb. Fl. Dehra Dun* 548. 1977; Mold., *Phytologia* 41: 457--458. 1979; Mold., *Phytol. Mem.* 2: 229, 250, 256, 262, 268, 270, 278, 285. 290, 301, 314, 326, 403, & 605. 1980; Mold., *Phytologia* 53: 308 & 311. 1983.

Additional & emended illustrations: Fyson, *Journ. Indian Bot.* 2: 139, fig. 3, pl. 10. 1921; Fyson, *Indian Sp. Erioc.* pl. 10. 1923.

Ramamoorthy refers to this plant as a common herb in open harvested paddy fields, with white flower-heads, and found it both in flower and fruit in January.

Bennet (1979), citing his no. 1014, gives the distribution of the species as "General; common. Usually found in paddy-fields with a thin layer of water; also sometimes in swampy areas" in West Bengal, where it is said to flower from September to November.

Additional citations: INDIA: Gujarat: *Koelz* 13342 (Mu). Karnataka: *Ramamoorthy HFP*.1368 (W--2797015). MOUNTED CLIPPINGS: K8rn., *Linnaea* 27: 645. 1854 (W).

ERIOCAULON SOLLYANUM var. *SUMATRANUM* Van Royen

Additional bibliography: Mold., *Phytologia* 41: 457--458. 1979; Mold., *Phytol. Mem.* 2: 314, 326, 403, & 605. 1980.

Additional citations: GREATER SUNDA ISLANDS: Sumatra: *Toroes* 5963 (Mi), 6008 (Mi).

ERIOCAULON SONDERIANUM K8rn.

Additional bibliography: Mold., *Phytologia* 29: 230. 1974; Mold., *Phytol. Mem.* 2: 239, 243, 245, & 605. 1980.

Recent collectors have encountered this plant along stream-sides, at 5800--9200 feet altitude, describing it as cespitose, the flower-heads white, in both flower and fruit in November and December. Bayliss refers to it as an "uncommon aquatic" in Lesotho.

Additional citations: SWAZILAND: *Kemp* 1152 (W--2941440). LESOTHO: *Bayliss BS*.5060 (E--2231262). SOUTH AFRICA: Orange Free State: *Bolus* 8269 (E--2487924); *Hilliart & Burt* 8714 (E--2383651).

ERIOCAULON SOUCHEREI Mold.

Additional bibliography: Mold., *Phytologia* 25: 77. 1972; Mold., *Phytol. Mem.* 2: 285, 292, & 605. 1980.

ERIOCAULON SPARGANIOIDES Bong.

Additional bibliography: Mold., *Phytologia* 25: 77. 1972; Mold.,

Phytol. Mem. 2: 142 & 605. 1980.

Additional citations: MOUNTED CLIPPINGS: Bong., Mem. Acad. Sci. St.-Petersb., ser. 6, 1: 637. 1831 (W); Kunth, Enum. Pl. 3: 579--580. 1841 (W).

ERIOCAULON SPECTABILE F. Muell.

Additional bibliography: T. B. Muir, *Muelleria* 2: 140. 1972; Mold., *Phytologia* 41: 458. 1979; Mold., *Phytol. Mem.* 2: 336, 339, & 605. 1980; Mold., *Phytologia* 53: 310. 1983.

The *G. C. Taylor 92*, distributed as *E. spectabile*, actually is the type collection of *E. hooperae* Mold.

ERIOCAULON SPHAGNICOLA Ohwi

Additional bibliography: Mold., *Phytologia* 26: 39. 1973; Mold., *Phytol. Mem.* 2: 299, 405, & 605. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: Satake, *Bull. Tokyo Sci. Mus.* 4: fig. 17. 1940 (Ld--photo of type).

ERIOCAULON SPONGIOSIFOLIUM Alv. Silv., *Arch. Mus. Nac. Rio Jan.* 23: 161, pl. 3. 1921.

Additional & emended bibliography: Alv. Silv., *Arch. Mus. Nac. Rio Jan.* 23: 161, pl. 3. 1921; Worsdell, *Ind. Lond. Suppl.* 1: 376. 1941; Mold., *Phytologia* 29: 230. 1974; Mold., *Phytol. Mem.* 2: 142 & 605. 1980.

Additional illustrations: Alv. Silv., *Arch. Mus. Nac. Rio Jan.* 23: pl. 3. 1921.

Citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Alv. Silv., *Arch. Mus. Nac. Rio Jan.* 23: 161, pl. 3 (Ld, W); Alv. Silv., *Fl. Mont.* 1: pl. 4. 1928 (Ld, W).

ERIOCAULON SPRUCEANUM Körn.

Additional bibliography: Mold., *Phytologia* 33: 15--16 (1976) and 36: 34 & 491. 1977; Mold., *Phytol. Mem.* 2: 108, 115, 142, & 605. 1980; Mold., *Phytologia* 53: 325. 1983.

Recent collectors have found this plant growing in brejo, on rocks in waterfalls, and in "wet to marshy savannas leading to gallery forests", describing it as an aquatic, the flower-heads white. They have found it in flower in June and in both flower and fruit in February and November.

Additional citations: COLOMBIA: Meta: Killip 34260 in part (W--1771077). Vaupés: Schultes & Cabrera 19907 (W--2198926). VENEZUELA: Amazonas: Thomas & Rogers 2611 (N), 2614 (N). Apure: Davidse & González 14286 (Ld). BRAZIL: Amazônia: Calderón, Monteiro, & Guedes 2631 (Ld, W--2931259). Distrito Federal: Héringher, Paula, Mendonca, & Salles 1662 (N, N).

ERIOCAULON SPRUCEANUM f. *AMPHIBIUM* Herzog

Additional bibliography: Mold., *Phytologia* 26: 39. 1973; Mold., *Phytol. Mem.* 2: 142 & 605. 1980.

ERIOCAULON SPRUCEANUM f. *FLUITANS* Herzog

Additional bibliography: Mold., *Phytologia* 26: 39--40. 1973;

Mold., Phytol. Mem. 2: 142 & 605. 1980; Mold., Phytologia 53: 325. 1983.

Austin and his associates have found this plant floating in the water of an igarapé; their collection, cited below, was previously uncorrected cited as *E. melanocephalum* Kunth.

Additional citations: BRAZIL: Amapa: Austin, Nauman, Rabelo, Rosário, & Santos 7302 (Ld, N, W--2932764).

ERIOCAULON SPRUCEANUM f. *VIVIPARUM* Mold.

Additional bibliography: Mold., Phytologia 36: 491. 1977; Mold., Phytol. Mem. 2: 108, 142, & 605. 1980.

Additional citations: COLOMBIA: Meta: Killip 34260 in part (W--1771077).

ERIOCAULON STANTONII Satake

Additional bibliography: Mold., Phytologia 36: 491. 1977; Mold., Phytol. Mem. 2: 257 & 605. 1980.

ERIOCAULON STEINBACHII (Mold.) Mold.

Additional bibliography: Mold., Phytologia 29: 230. 1974; Mold., Phytol. Mem. 2: 174 & 605. 1980.

ERIOCAULON STELLULATUM Körn.

Additional & emended bibliography: Fyson, Journ. Indian Bot. 2: 317 & 319. 1922; Fyson, Indian Sp. Erioc. 55. 1923; Worsdell, Ind. Lond. Suppl. 1:376. 1941; Mold., Phytologia 33: 16. 1976; Mold., Phytol. Mem. 2: 262, 270, 285, & 605. 1980.

Additional illustrations: Fyson, Journ. Indian Bot. 2: 319. 1922; Fyson, Indian Sp. Erioc. 55. 1923.

Additional citations: MOUNTED CLIPPINGS: Körn., Linnaea 27: 620. 1854 (W).

ERIOCAULON STELLULATUM var. *LAOSENSE* Mold.

Additional bibliography: Mold., Phytologia 25: 79. 1972; Mold., Phytol. Mem. 2: 290 & 605. 1980.

ERIOCAULON STENOPHYLLUM R. F. Fries

Additional bibliography: Mold., Phytologia 33: 16. 1976; Mold., Phytol. Mem. 2: 235 & 605. 1980.

ERIOCAULON STEYERMARKII Mold.

Additional bibliography: Hocking, Excerpt. Bot. A.23: 389. 1974; Mold., Phytologia 41: 458. 1979; Mold., Phytol. Mem. 2: 115, 122, 124, 142, & 605. 1980; Mold. in Harley & Mayo, Toward Checklist Fl. Bahia 73. 1980.

Additional citations: VENEZUELA: Bolívar: B. Maguire 33182 (W--2168898), 33512a (W--2168910); Steyermark, Smith, Smith, Dunsterville, & Dunsterville 105518 (W--2925902); Steyermark & Wurdack 341 (W--2407714), 763 (W--2407795). BRAZIL: Goiás: Irwin, Harley, & Smith 33115 (W--2709599).

ERIOCAULON STEYERMARKII var. *BAHIENSE* Mold.

Additional bibliography: Mold., Phytologia 41: 458. 1979; Mold.

in Harley & Mayo, Toward Checklist Fl. Bahia 73. 1980; Mold., Phytol. Mem. 2: 142 & 605. 1980.

ERIOCAULON STILLULATUM Hook.

Additional bibliography: Mold., Phytologia 25: 79. 1972; Mold., Phytol. Mem. 2: 336 & 605. 1980.

ERIOCAULON STOLONIFERUM Welw.

Additional bibliography: Mold., Phytologia 29: 231. 1974; Mold., Phytol. Mem. 2: 224, 233, 403, & 605. 1980.

Additional citations: MOUNTED ILLUSTRATIONS: H. Hess, Bericht. Schweiz. Bot. Gesell. 65: 148, fig. 1 & 2. 1955 (Ld).

ERIOCAULON STRAMINEUM Körn.

Additional bibliography: Mold., Phytologia 33: 16. 1976; Mold., Phytol. Mem. 2: 142, 172, & 605. 1980.

ERIOCAULON STRIATUM Lam.

Additional bibliography: Mold., Phytologia 33: 16. 1976; Mold., Phytol. Mem. 2: 250, 252, 254, & 605. 1980.

Additional citations: MOUNTED CLIPPINGS & ILLUSTRATIONS: Kunth, Enum. Pl. 3: 560 & 561. 1841 (W, W); Poir. in Lam., Encycl. Méth. Bot. 1: 213, pl. 50, fig. 1. 1791 (Ld).

ERIOCAULON STRICTUM Milne-Redhead

Additional bibliography: Mold., Phytologia 41: 458. 1979; Mold., Phytol. Mem. 2: 200, 226, 229. 235, 237, & 605. 1980.

Material of this species has been misidentified and distributed in some herbaria as *Cyperaceae* sp.

Additional citations: BURUNDI: Michel 2768 (E--1785177). MOUNTED ILLUSTRATIONS: Milne-Redhead in Hook., Icon. Pl. 34: pl. 3388. 1939 (W).

ERIOCAULON STUHLMANNI N. E. Br.

Additional bibliography: Mold., Phytologia 29: 228 & 231--232. 1974; Mold., Phytol. Mem. 2: 205, 207, 226, 403, & 605. 1980.

ERIOCAULON SUBGLAUCUM Ruhl.

Additional bibliography: Mold., Phytologia 33: 16. 1976; Mold., Phytol. Mem. 2: 268 & 605. 1980.

Additional citations: SRI LANKA: Schmer & Waas 10226 (E--2581776).

ERIOCAULON SUBMERSUM Welw.

Additional bibliography: Mold., Phytologia 29: 232. 1974; Giuliatti, Bol. Bot. Univ. S. Paulo 6: 44. 1978; Mold., Phytol. Mem. 2: 233 & 605. 1980.

ERIOCAULON SUBULATUM N. E. Br.

Additional bibliography: Mold., Phytologia 29: 232. 1974; Mold., Phytol. Mem. 2: 235, 237, 240, 250, & 605. 1980.

[to be continued]