

ADDITIONAL NOTES ON THE GENUS CHASCANUM. V

Harold N. Moldenke

CHASCANUM E. Mey.

Additional & emended synonymy: Denisia Kuntze ex Dalla Torre & Harms, Gen. Siphonog., imp. 1, 673 & 715. 1907. Denisia Post & Kuntze apud Prain, Imp. Kew. Suppl. 4, imp. 1, 69, in syn. 1913. Marulea Schrad. ex Moldenke in Fedde, Repert. Spec. Nov. 45: 114, in syn. 1938; F. A. Barkley, List Ord. Fam. Anthoph. 76. 1965. Gisania Ehrenb. ex Moldenke in Fedde, Repert. Spec. Nov. 45: 114, in syn. 1938; F. A. Barkley, List Ord. Fam. Anthoph. 75. 1965. Gisania "Ehrenb. ex Moldenke" apud Hill & Salisb., Ind. Kew. Suppl. 10: 251. 1947. Marulea "Schrad. ex Moldenke" spud Hill & Salisb., Ind. Kew. Suppl. 10: 251. 1947. Chaschanum E. Mey. ex Martin & Noel, Fl. Albany & Bathurst 92, sphalm. 1960. Chascanium E. Mey. apud Batten & Bokelm., Wild Fls. East. Cape Prov. 124 & 125, sphalm. 1966.

Additional & emended bibliography: L. f., Suppl. Pl., imp. 1, 277 & 288. 1781; Harv., Gen. S. Afr. Pl., ed. 1, 267 & 269. 1838; D. Dietr., Syn. Pl. 3: 371. 1843; F. Krauss, Flora 28: 68. 1845; Bocq., Adansonia, ser. 1, 3: [Rev. Verbénac.] 181 & 235--237, pl. 16. 1863; Pfeiffer, Nom. Bot. 1 (1): 450 & 702 (1873) and 2 (1): 759. 1874; Kuntze, Rev. Gen. Pl. 2: 502. 1891; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 327, 507, & 733 (1893) and imp. 1, 2: 504, 564, & 567. 1894; T. R. Sims, Sketch & Checklist Fl. Kaffr. 63. 1894; J. G. Baker in Thiselt.-Dyer, Fl. Trop. Afr. 5: 273 & 281--284. 1900; H. H. W. Pearson in Thiselt.-Dyer, Fl. Cap. 5 (1): 181 & 197--206. 1901; Dalla Torre & Harms., Gen. Siphonog., imp. 1, 430 (1904) and imp. 1, 673 & 715. 1907; M. Kunz, Anatom. Untersuch. Verb. 39, 40, & 48. 1911; Thiselt.-Dyer, Fl. Cap. 5 (1): 727 & 728. 1912; Prain, Ind. Kew. Suppl. 4, imp. 1, 28 & 69 (1913) and 5, imp. 1, 35. 1921; Bews, Pl. Forms & Evol. S. Afr. 156. 1925; Grenz., Ann. Mo. Bot. Gard. 13: 71, 72, & 76. 1926; Wangerin in Just, Bot. Jahresber. 54 (1): 1170. 1932; A. W. Hill, Ind. Kew. Suppl. 8: 31. 1933; L. f., Suppl. Pl., imp. 2, 277 & 288. 1936; A. W. Hill, Ind. Kew. Suppl. 9: 61. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 571. 1941; J. Hutchinson, Botanist in South. Afr. 178, 356, 361, 366, & 400. 1946; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 327, 507, & 733 (1946) and imp. 2, 2: 504, 564, & 567. 1946; Glover, Prov. Check List Brit. & Ital. Somal. 16, 19, 266, 268, 355, 427, 429, & 431. 1947; Hill & Salisb., Ind. Kew. Suppl. 10: 33, 49, 99, 141, 222, & 251. 1947; Chittenden, Roy. Hort. Soc. Dict. Gard., ed. 1, 1: 302. 1951; Erdtman, Pollen Morph. & Pl. Tax., ed. 1, 448 & 449, fig. 256 E. 1952; Goossens, Suid-Afrik. Blompl. 188. 1953; E. J. Salisb., Ind. Kew. Suppl. 11: 51. 1953; J. B. Gillett, Kew Bull. 1955: 131--136. 1955; Angely, Cat. Estat. Gen. Bot. Fan. 17: 3.

- 1956; Chittenden, Roy. Hort. Soc. Dict. Gard., ed. 2, 1: 302.
 1956; Anon., U. S. Dept. Agr. Bot. Subj. Index 15: 14354. 1958;
 Humbert, Fl. Sahara Sept. & Cent. 407. 1958; Mostert, Bot. Surv.
 S. Afr. Mem. 31: 83 & 191. 1958; Prain, Ind. Kew. Suppl. 4, imp.
 2, 28 & 69. 1958; Anon., Kew Bull. Gen. Index 1929-1956, 47 & 72.
 1959; J. Hutchinson, Fam. Flow. Pl., ed. 2, 2: 395. 1959; G. Tay-
 lor, Ind. Kew. Suppl. 12: 23 & 33. 1959; Martin & Noel, Fl. Albany
 & Bathurst 92. 1960; Prain, Ind. Kew. Suppl. 5, imp. 2, 35. 1960;
 Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 327, 507, & 733
 (1961) and imp. 3, 2: 504, 564, & 567. 1961; Moldenke, Biol. Ab-
 str. 36: 2311 & 3141. 1961; Moldenke, Phytologia 7: 369--376. 1961;
 Anon., Assoc. Étud. Tax. Fl. Afr. Trop. Index 1961: 60. 1962;
 Cuf., Bull. Jard. Bot. Brux. 32: Suppl. 792--793. 1962; Giess,
 Scient. Pap. Namib Des. Res. Stat. 3 [Cimbebasia 2]: 32. 1962;
 Letty, Dyer, Verdoorn, & Codd, Wild Fls. Transv. 281 & [282], pl.
 140 (3 & 3a). 1962; Dalla Torrey & Harms, Gen. Siphonog., imp. 2,
 430. 1963; Hepper in Hutch. & Dalz., Fl. W. Trop. Afr., ed. 2, 2:
 437--438. 1963; Hocking, Excerpt. Bot. A.6: 532 & 533. 1963; Hu-
 ber, Hepper, & Meikle in Hutch. & Dalz., Fl. W. Trop. Afr., ed. 2,
 2: 432. 1963; Legris, Trav. Sect. Scient. Inst. Franç. Pond. 6:
 535 & 558. 1963; Quezel & Santa, Nouv. Fl. Alg. 2: 779 & 781. 1963;
 H. P. Riley, Fam. Flow. Pl. S. Afr. 128. 1963; F. A. Barkley, List
 Ord. Fam. Anthoph. 75, 76, 151, 168, & 184. 1965; Moldenke, Phyto-
 logia 12: 6. 1965; Airy Shaw in J. C. Willis, Dict. Flow. Pl., ed.
 7, 230, 479, 699, & 896. 1966; Batten & Bokelm., Wild Fls. East.
 Cape Prov. 124 & 125, pl. 99.8. 1966; R. H. Compton, Journ. S. Afr.
 Bot. Supp. 6: 65 & 157. 1966; Erdtman, Pollen Morph. & Pl. Tax.,
 ed. 2, 448 & 449, fig. 256 E. 1966; Jafri, Fl. Karachi 286, 287, &
 352, fig. 282. 1966; J. K. Maheshwari, Illustr. Fl. Delhi 172,
 fig. 172. 1966; Moldenke, Bol. Soc. Brot., ser. 2, 40: 121. 1966;
 Friedrich-Holzhammer, Meeuse, & Meikle in Merxmüller, Prodr. Fl.
 Südw. Afr. 13 (122): [1]--4. 1967; Moldenke, Résumé Suppl. 15: 16
 (1967), 16: 8, 16, 19, 22, & 24 (1968), and 18: 8. 1968; Anon.,
 Assoc. Étud. Tax. Fl. Afr. Trop. 1967: 62. 1968; Anon., Biol. Ab-
 str. 49: 390. 1968; Anon., Torrey Bot. Club Ind. Am. Bot. Lit. 3:
 304, 306, & 308. 1969; P. J. Greenway, Journ. East Afr. Nat. Hist.
 Soc. & Nat. Mus. 27: 196. 1969; Quezel, Fl. & Veg. Plat. Darfur
 [Doss. 5 Recherch. Coop. Prog. 45:] 131. 1969; M. A. Rau, Bull.
 Bot. Surv. India 10, Suppl. 2: 62. 1969; Van der Schijff, Check
 List Vasc. Pl. Kruger Natl. Park 81. 1969; El-Gazzar & Wats., New
 Phytol. 69: 457, 483, & 485. 1970; Bews in Eyre, World Veget.
 Types 161. 1971; Erdtman, Pollen Morph. & Pl. Tax., ed. 3, 448.
 1971; Moldenke, Fifth Summ. 1: 5, 208--213, 226, 233, 235, 240,
 242, 245, 247, 250, 253--255, 259, 264, 265, 267, 272, 356, 398--
 402, 424--426, & 475 (1971) and 2: 520, 526, 534, 570, 600, 604,
 615, 617, 629, 630, 754, 777, 857, & 858. 1971; V. Singh, Journ.
 Bomb. Nat. Hist. Soc. 68: 343. 1971; Bavazzano, Webbia 25 [Erb.
 Trop. Firenz. Publ. 21]: 319, 355, & 356. 1972; Cuf., Bull. Jard.
 Bot. Nat. Belg. 42 (3): [Suppl. Enum. Pl. Aethiop.] 1629 & 1653.
 1972; Lebrun in Hepper, Kew Bull. 26: 567--568. 1972; Letouzey,
 Man. Bot. Forest. Afr. Trop. 2 (B): 360. 1972; J. Mukherjee, Trans.
 Bose Res. Inst. Calcutta 35: 37--44. 1972; R. R. Stewart, Annot.

Cat. in Nasir & Ali, Fl. W. Pakist. 605. 1972; Airy Shaw in J. C. Willis, Dict. Flow. Pl., ed. 8, 236, 490, 717, & 920. 1973; J. Hutchinson, Fam. Flow. Pl., ed. 3, 487 & 921. 1973; Moldenke, Phytologia 25: 236, 240, 505, & 508 (1973), 26: 501 (1973), 28: 442, 454, & 507 (1974), and 29: 41, 42, 506, 507, & 510. 1974; "H. R.", Biol. Abstr. 57: 6940. 1974; Troncoso, Darwiniana 18: 350 & 409. 1974.

Batten & Bokelmann (1966) tell us that the generic name, Chascanum, supposedly is derived from the Greek, chaskamum, meaning a mask with wide-open mouth.

It should be noted here that in Glover's work (1947) on page 19 there is a statement to the effect that this genus is mentioned on page "366" of the same work, but it is not mentioned on that page; it is mentioned, instead, on page 266.

Riley (1963) reports the sporophytic chromosome number for this genus as 40. I am not certain if he includes the related genus, Bouchea, here or not, although probably not. Jafri & Ghafoor, in their part of the as yet unpublished Flora of West Pakistan, assert that the genus Chascanum "differs from Bouchea Cham., a new world genus, by its fruits enclosed within the slightly inflated calyx (not equalling or exceeding the calyx). Svensonia Moldenke, with laterally winged or ribbed pyrenes, is hardly different from this genus."

The Baylisa 1755, distributed as Chascanum sp., is not verbenaceous.

CHASCANUM ADENOSTACHYUM (Schau.) Moldenke

Additional & emended bibliography: Schau. in A.DC., Prodr. 11: 560. 1847; H. H. W. Pearson in Thislet.-Dyer, Fl. Cap. 5 (1): 199. 1901; Thislet.-Dyer, Fl. Cap. 5 (1): 727. 1912; Grenz., Ann. Mo. Bot. Gard. 13: 71. 1926; Moldenke, Phytologia 1: 18. 1933; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 571. 1941; J. Hutchinson, Botanist in South. Afr. 366. 1946; Moldenke, Phytologia 4: 440. 1953; J. B. Gillett, Kew Bull. 1955: 135. 1955; Anon., Kew Bull. Gen. Index 1929-1956, 72. 1959; Moldenke, Biol. Abstr. 36: 2311. 1961; Moldenke, Fifth Summ. 1: 247, 254, 255, 398, 400, & 425 (1971) and 2: 857. 1971.

Hutchinson (1946) cites J. Hutchinson 2503 from South Africa. Tassman 10 is said to have had "deep cream" colored corollas; it was collected in flower in January at an altitude of 4500 feet.

Additional citations: SOUTH AFRICA: Transvaal: Tassman 10 (B).

CHASCANUM ANGOLENSE Moldenke

Additional & emended bibliography: Hill & Salisb., Ind. Kew. Suppl. 10: 49. 1947; J. B. Gillett, Kew Bull. 1955: 135. 1955; Moldenke, Fifth Summ. 1: 242 (1971) and 2: 857. 1971.

CHASCANUM ARABICUM Moldenke

Additional & emended bibliography: Hill & Salisb., Ind. Kew. Suppl. 10: 49. 1947; J. B. Gillett, Kew Bull. 1955: 131, 133, &

134. 1955; Anon., Kew Bull. Gen. Index 1929-1956, 72. 1959; Cuf., Bull. Jard. Bot. Brux. 32: Suppl. 792. 1962; Moldenke, Fifth Summ. 1: 212, 264, & 265 (1971) and 2: 857. 1971.

CHASCANUM CAESPITOSUM (H. H. W. Pearson) Moldenke

Additional & emended bibliography: H. H. W. Pearson, Trans. S. Afr. Phil. Soc. 15: 178. 1905; Moldenke, Phytologia 4: 441. 1953; Moldenke, Fifth Summ. 1: 255 & 399 (1971) and 2: 857. 1971.

CHASCANUM CERNUUM (L.) E. Mey.

Emended synonymy: *Buchnera cernua* L., Mant. 2: 251. 1771 [not *B. cernua* Houtt., 1778]. *Büchnera cernua* L., Syst. Veg., ed. 14, 571. 1784. *Chascanum cernuum* E. Mey., Comm. Pl. Afr. Austr. 1: lxiv, nom. nud. 1837. *Buechnera cernua* L. ex E. Mey., Comm. Pl. Afr. Austr. 1: 276, in syn. 1837.

Additional & emended bibliography: L., Mant. 2: 251. 1771; L., Syst. Veg., ed. 14, 571. 1784; Thunb., Prodr. Pl. Cap. 100. 1800; Thunb., Fl. Cap., ed. Schult., 466. 1823; E. Mey., Comm. Pl. Afr. Austr. 1: lxiv & 276. 1837; Harv., Gen. S. Afr. Pl., ed. 1, 269. 1838; F. Krauss, Flora 28: 68. 1845; Bocq., Adansonia, ser. 1, 3: [Rev. Verbénac.] 236. 1863; H. H. W. Pearson in Thiselt.-Dyer, Fl. Cap. 5 (1): 203. 1901; M. Kunz, Anat. Untersuch. Verb. 39. 1911; Thiselt.-Dyer, Fl. Cap. 5 (1): 727 & 728. 1912; Grenz., Ann. Mo. Bot. Gard. 13: 71, 98, & 100, pl. 11, fig. 25-28, & pl. 12, fig. 34. 1926; Wangerin in Just, Bot. Jahresber. 54 (1): 1170. 1932; Erdtman, Pollen Morph. & Pl. Tax., ed. 1, 448 & 449, fig. 256 E. 1952; Moldenke, Phytologia 4: 441. 1953; H. P. Riley, Fam. Flow. Pl. S. Afr. 128. 1963; Erdtman, Pollen Morph. & Pl. Tax., ed. 2, 448 & 449, fig. 256 E. 1966; El-Gazzar & Wats., New Phytol. 69: 457, 483, & 485. 1970; Erdtman, Pollen Morph. & Pl. Tax., ed. 3, 448. 1971; Moldenke, Fifth Summ. 1: 255, 399, 401, 492, & 424 (1971) and 2: 857. 1971.

Illustrations: Grenz., Ann. Mo. Bot. Gard. 13: 98 & 100, pl. 11, fig. 25-28, & pl. 12, fig. 34. 1926; Erdtman, Pollen Morph. & Pl. Tax., ed. 1, 449, fig. 256 E (1952) and ed. 2, 449, fig. 356 E. 1966.

Riley (1963) states that this plant is found occasionally in the southern half of the Cape of Good Hope peninsula in South Africa. Erdtman (1966) has examined the pollen of Acock 1504 from South Africa and describes the grains as 3-colporate, subprolate, 104 x 84 μ , the apertures more or less different from those seen in C. garipense, C. gillettii, C. marrubiifolium, and C. schlechteri. Krauss (1845) cites Krauss 1086 from South Africa.

CHASCANUM DEHISCENS (L. f.) Moldenke

Additional synonymy: *Bouchea cuneifolia* Schau. apud Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 327. 1893. *Chaschanum cuneifolium* (L. f.) E. Mey. ex Martin & Noel, Fl. Albany & Bathurst 92, sphalm. 1960 *Chascanium cuneifolium* E. Mey. ex Batten

& Bokelm., Wild Fls. East. Cape Prov. 125 & 175, sphalm. 1966.

Additional & emended bibliography: L. f., Suppl. Pl., imp. 1, 277 & 288. 1781; Harv., Gen. S. Afr. Pl., ed. 1, 269. 1838; F. Krauss, Flora 28: 68. 1845; Bocq., Adansonia, ser. 1, 3: [Rev. Verbénac.] 236. 1863; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 327, 350, 507, & 733. 1893; T. R. Sims, Sketch & Check-list Fl. Kaffr. 63. 1894; M. Kunz, Anatom. Untersuch. Verb. 39. 1911; Thistelt.-Dyer, Fl. Cap. 5 (1): 727 & 728. 1912; Grenz., Ann. Mo. Bot. Gard. 13: 71. 1926; L. f., Suppl. Pl., imp. 2, 277 & 288. 1936; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 327, 350, 507, & 733. 1946; Hill & Salisb., Ind. Kew. Suppl. 10: 141. 1947; Chittenden, Roy. Hort. Soc. Dict. Gard., ed. 1, 1: 302. 1951; Moldenke, Phytologia 4: 441-443. 1953; Chittenden, Roy. Hort. Soc. Dict. Gard., ed. 2, 1: 302. 1956; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 327, 350, 507, & 733. 1959; Martin & Noel, Fl. Albany & Bathurst 92. 1960; Moldenke, Phytologia 7: 373. 1961; Batten & Bokelm., Wild Fls. East. Cape Prov. 125 & 175, pl. 99 (8). 1966; Moldenke, Résumé Suppl. 16: 19. 1968; Moldenke, Fifth Summ. 1: 255, 356, 399, 402, 424, & 475 (1971) and 2: 600, 604, 615, & 857. 1971.

Illustrations: Batten & Bokelm., Wild Fls. East. Cape Prov. pl. 99 (8) [in color]. 1966.

Recent collectors describe this plant as a small bush, woody at the base, erect, wiry, 30-38 cm. tall, straggling, the leaves fleshy, light-green, the flowers fragrant, profuse after rains, and the corollas "white" or "pure white". It has been found in anthesis from September to April, growing at altitudes of 100 to 1500 feet. It has been found growing in shade, among shrubs, and with Euphorbia in succulent bush. Bayliss reports finding it in association with Tritonia rubro-lucens, Martin & Noel say that it inhabits "Dry grassld., semi-karr. scrub", and Batten & Bokelmann found it to be "fairly frequent in dry poor grassland around King William's Town and in semi-karoid areas in [the] Albany district; wide distribution". Chittenden (1956) asserts that it has been cultivated for ornament in England since 1821. Krauss (1845) cites Krauss 1129 from South Africa.

Additional citations: SOUTH AFRICA: Cape Province: Bayliss BS. 2352 (N, W--2564360), BS.2405 (N), BS.5053 (W--2670690); Ecklon & Zeyher 33.10 (W--1170570); Flanagan 352 (S).

CHASCANUM GARIPENSE E. Mey.

Additional synonymy: Bouchea glanduloufera Pearson ex Moldenke, Résumé Suppl. 3: 30, in syn. 1962.

Additional & emended bibliography: Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 327 & 507. 1893; J. G. Baker in Thistelt.-Dyer, Fl. Trop. Afr. 5: 282--283. 1900; Thistelt.-Dyer, Fl. Cap. 5 (1): 727 & 728. 1912; Grenz., Ann. Mo. Bot. Gard. 13: 71. 1926; J. Hutchinson, Botanist in South. Afr. 178. 1946; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 327 & 507. 1946; Erdtman, Pollen Morph. & Pl. Tax., ed. 1, 448. 1952; Moldenke, Phytologia 4: 443. 1953; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 327 & 507.

1960; Giess, *Scient. Pap. Namib Des. Res. Stat.* 3 [Cimbebasia 2]: 32. 1962; Erdtman, *Pollen Morph. & Pl. Tax.*, ed. 2, 448. 1966; Friedrich-Holzhammer, Meeuse, & Meikle, *Prodr. Fl. Südw. Afr.* 13 (122): [1]--4. 1967; Erdtman, *Pollen Morph. & Pl. Tax.*, ed. 3, 448. 1971; Moldenke, *Fifth Summ.* 1: 253, 255, 399, & 424 (1971) and 2: 857. 1971.

Recent collectors refer to this plant as a woody shrub, 70 cm. to 2 m. tall, but Liebenberg describes it as an "annual herb, 2--5 ft. tall, very general" and Seydel calls it a "tall growing annual or biennial shrub, not rare in [the] granite region". The corollas are either described as white or as "white turning to lilac with wilting". It has been collected in anthesis from February to April and in October, in fruit in March, growing among rocks or in granite soil, at altitudes of 3300 to 4500 feet.

Giess asserts that this species grows "only at [the] lower parts of the Zwartbank Mountains in sandy watercourses". Soedahl found it "in crater canyon; it had a delicate pleasing scent; it is locally called 'the Sylvia'; it was also seen growing on the slopes of the kopjes in the desert" of Southwest Africa.

Erdtman (1966) has examined the pollen of Ürtendahl 65 from South Africa and gives its dimensions as 98 x 87 μ and its shape as 3-colporate and subprolate.

Friedrich-Holzhammer and his associates (1967) describe the species as having "Ähren lang, dicht, vielblütig, nicht von Seitenzweigen übergipfelt. Pflanze kahl oder mit winzigen, sitzenden Drüsen, meist etwa 40--70 cm hoch. Blätter ca. 1,5--3 (—4) cm lang, 1--2 cm breit, grob gezähnt bis eingeschnitten mit stumpfen Zähnen. Kelch 6--7 (—8) mm lang. Krone rein weiss, beim Abblüten etwas nach lila verfärbend."

Baker (1900) cites Pechuel-Loesche s.n. from Namibia as Bouchea garipensis var. microphylla Kuntze with the comment that "The typical form is South African". Giess (1962) cites Giess 3031; Hutchinson (1946) cites Hutchinson 943; and Friedrich-Holzhammer and his associates (1967) cite from Namibia: De Winter 3172 & 3412, Giess 2366 & 3031, Giess & Van Vuuren 777, Giess, Volk, & Bleissner 5225, Kinges 2181, 2315, & 4772, Kräusel 683 & 840, Meyx Müller & Giess 1647, 2225, & 2823, and Seydel 2005.

The Seydel 3597, distributed as Chascanum garipense, is actually Hebenstreitia erinoides L. f. or H. integrifolia L. in the Selaginaceae. The Bass s.n., cited below, is a transfer from the Moldenke herbarium.

Additional & emended citations: NAMIBIA: Bass s.n. [Herb. Transvaal Mus. 36201] (Ld); Mrs. W. H. Hoover 14 (W--1379082); Liebenberg 5133 (B); Ürtendahl 65 (W--1992398); Seydel 453 (N, N, S. W--2671790), 3116 (N, W--2670915); Sordahl 6499 (W--1529518); E. Wall 12 (Ew). SOUTH AFRICA: Cape Province: L. E. Taylor 1183 (N).

CHASCANUM GILLETTII Moldenke

Synonymy: Chascanum adenostachyum Auct. ex Cuf., *Bull. Jard.*

Bot. Brux. 32: Suppl. 792, in syn. 1962 [not C. adenostachyum (Schau.) Moldenke, 1934]. Chascanum africanum Auct. ex Cuf., Bull. Jard. Bot. Brux. 32: Suppl. 792 (in part). 1962 [not C. africanum Moldenke, 1938].

Additional & emended bibliography: Hill & Salisb., Ind. Kew. Suppl. 10: 49. 1947; Erdtman, Pollen Morph. & Pl. Tax., ed. 1, 448. 1952; Moldenke, Phytologia 4: 443. 1953; J. B. Gillett, Kew Bull. 1955: 132--135. 1955; Anon., Kew Bull. Gen. Index 1929-1956, 72. 1959; G. Taylor, Ind. Kew. Suppl. 12: 33. 1959; Cuf., Bull. Jard. Bot. Brux. 32: Suppl. 792. 1962; Erdtman, Pollen Morph. & Pl. Tax., ed. 2, 448 (1966) and ed. 3, 448. 1971; Moldenke, Fifth Summ. 1: 212, 213, 240, & 424 (1971) and 2: 857. 1971.

Gillett reports the color of the corollas of this species as "yellow-lime, tube cream", while Ashall refers to them as just "yellow". Erdtman (1966) has examined the pollen of Gillett 4934 from Somali and describes it as 3-colporate, subprolate, about 50 x 58 μ .

The species has been found growing in cracks in granite rocks, in rich Commiphora-Acacia open scrub, and on gravel plains, at altitudes of 3400 feet, flowering and fruiting in May.

It should be noted here that the C. africanum Auct. of Cufodontis is, by his definition, in part synonymous with C. gillettii Moldenke, in part with C. sessilifolium (Vatke) Moldenke, and in part with Svensonia laeta (Fenzl) Moldenke.

Additional citations: ETHIOPIA: Ashall C.A.7 (B). KENYA: J. B. Gillett 13196 (B), 13383 (B).

CHASCANUM GÜRKEANUM (Loes.) Moldenke

Additional bibliography: Moldenke, Phytologia 4: 443--444. 1953; G. Taylor, Ind. Kew. Suppl. 12: 23. 1959; Friedrich-Holzhammer, Meeuse, & Meikle, Prodr. Fl. Südw. Afr. 13 (122): 3. 1967; Moldenke, Fifth Summ. 1: 253, 399, & 424 (1971) and 2: 777 & 857. 1971.

Friedrich-Holzhammer and his associates (1967) reduce this species to synonymy under C. pumilum E. Mey. with a question.

CHASCANUM HANNINGTONII (Oliv.) Moldenke

Additional & emended bibliography: J. G. Baker in Thiselt.-Dyer, Fl. Trop. Afr. 5: 282 & 283. 1900; Moldenke, Phytologia 4: 444. 1953; J. B. Gillett, Kew Bull. 1955: 132 & 135. 1955; Anon., Kew Bull. Gen. Index 1929-1956, 47 & 72. 1959; Moldenke, Fifth Summ. 1: 235 & 399 (1971) and 2: 857. 1971.

Baker (1900) cites only the original Hannington collection from Tanganyika.

CHASCANUM HEDERACEUM (Sond.) Moldenke

Additional bibliography: Thiselt.-Dyer, Fl. Cap. 5 (1): 727. 1912; Moldenke, Suppl. List Invalid Names 2. 1941; J. Hutchinson, Botanist in South. Afr. 356 & 400. 1946; Moldenke, Phytologia 4: 444--445. 1953; Letty, Dyer, Verdoorn, & Codd, Wild Fls. Trans-

vaal 281 & [282], pl. 140 (3 & 3a). 1962; R. H. Compton, Journ. S. Afr. Bot. Suppl. 6: 65. 1966; Van der Schijff, Check List Vasc. Pl. Kruger Natl. Park 81. 1969; Moldenke, Fifth Summ. 1: 247, 253—255, 399, & 401 (1971) and 2: 857. 1971.

Illustrations: Letty, Dyer, Verdoorn, & Codd, Wild Fls. Transvaal [282], pl. 140 (3 & 3a) [in color]. 1962.

Fetty and his associates (1962) describe this species as "about 1 ft. tall and most of the plant is covered with glandular hairs. A long inflorescence terminates the short leafy stems....and, from the axils of the closely packed bracts, grow the tubular, creamy-white flowers, which contribute substantially to the bright veld scene in early spring." They also note that "There are only about 25 species of Chascanum and of these 7 are found in the Transvaal".

Recent collectors have described the plant as a perennial low shrub, 40—60 cm. tall, or an "annual, 1.5—2 m. tall" [Seydel]. The corollas are uniformly described as white and the plant has been found in anthesis from January to April and in fruit in January, growing at altitudes of 3300—4500 feet [4500 "m." according to Dahlstrand, but this is probably an error for "ft."]. It has been encountered on rocks, in sandy soil with granite rocks, and in mixed Euphorbia tirucalli scrub. Edwards refers to it as "local" in Natal and Seydel as "not rare" in Namibia.

Material of this species has been misidentified and distributed in some herbaria under the designation "Bouchea glanduloufera Pearson". Hutchinson (1946) cites his nos. 2349 and 2847, while Van der Schijff (1969) cites his nos. 1115, 1628, 3277, & 4954 from Kruger National Park. He comments that the species is an "Herb scattered in the southern part of the Park".

Additional citations: NAMIBIA: Ürtendahl 65 (Ca—988064); Seydel 453 (Ca—77638). SOUTH AFRICA: Cape Province: L. E. Taylor 1183 (Ca—956340). Natal: D. Edwards 2778 (S). Transvaal: Dahlstrand 1927 (Go); F. R. R. Schlechter 3707 (Ca—298946); Schlieben 7661 (N, W—2272451), 9368 (S); Werdermann & Oberdieck 1276 (W—2582922).

CHASCANUM HEDERACEUM var. NATALENSE (H. H. W. Pearson) Moldenke

Additional synonymy: Denisia wilmsii Kuntze apud Prain, Ind. Kew. Suppl. 4, imp. 1, 69. 1913.

Additional & emended bibliography: Thiselt.—Dyer, Fl. Cap. 5 (1): 727. 1912; Prain, Ind. Kew. Suppl. 4, imp. 1, 28 & 69. 1913; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 571. 1941; Moldenke, Phytologia 4: 444—445. 1953; Anon., U. S. Dept. Agr. Bot. Subj. Index 15: 14354. 1958; Prain, Ind. Kew. Suppl. 4, imp. 2, 28 & 69. 1958; Moldenke, Phytologia 7: 359. 1961; Moldenke, Fifth Summ. 1: 245, 250, 254, 255, 399, 401, 425, & 475 (1971) and 2: 857. 1971.

Additional citations: MOZAMBIQUE: Lourenço Marques, E. Sousa 23 (U1, U1, Z); Torre 1778 (U1).

CHASCANUM HILDEBRANDTII (Vatke) Gillett

Emended synonymy: Stachytarpheta hildebrandtii Vatke, *Linnaea* 43: 529. 1882.

Additional & emended bibliography: Gürke in Engl., *Pflanzenw. Ost-Afr. C*: 338. 1895; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 1, 2: 974. 1895; J. G. Baker in *Thiselt.-Dyer, Fl. Trop. Afr.* 5: 283 & 284. 1900; M. Kunz, *Anatom. Untersuch. Verb.* 48. 1911; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 2, 2: 974. 1946; Glover, *Prov. Check List Brit. & Ital. Somal.* 266, 268, 427, 429, & 431. 1947; Hill & Salisb., *Ind. Kew. Suppl.* 10: 49. 1947; Moldenke, *Phytologia* 4: 441. 1953; J. B. Gillett, *Kew Bull.* 1955: 132 & 134--135. 1955; Anon., *Kew Bull. Gen. Index 1929-1956*, 72. 1956; G. Taylor, *Ind. Kew. Suppl.* 12: 33. 1959; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 3, 2: 974. 1960; Moldenke, *Phytologia* 7: 375. 1961; Cuf., *Bull. Jard. Bot. Brux.* 32: Suppl. 792. 1962; P. J. Greenway, *Journ. East Afr. Nat. Hist. Soc.* 27: 196. 1969; Moldenke, *Fifth Summ.* 1: 233, 235, 240, 424, & 630 (1971) and 2: 857. 1971; Bavazzano, *Webbia* 26 [Erb. Trop. Firenz. Publ. 21]: 319 & 355. 1972; Lebrun in Hepper, *Kew Bull.* 26: 567. 1972; Moldenke, *Phytologia* 28: 442. 1974.

Recent collectors have described this plant as an "annual to 80 cm. tall", a low to ascending herb, or a spreading shrubby herb, the stem ridged, the calyx green, and the corollas white, the limb milk-white. They have encountered it along roadsides, at the margins of cultivation, in scrub, open grassy spots on granite rock, in sandy or red clay soil, in regions of short grass and scattered bushes, and in very open irregular woodland in granite hills, at altitudes of 435 to 1200 meters, flowering in January, March, May, July, August, and October, and fruiting in March, May, August, and October. Polhill & Paulo describe it as an "Herb with a number of spreading branches to 2 ft.; corolla white with conspicuous yellow anthers in throat" and found it growing in black clay soil with a mixture of sand, among scattered trees of Terminalia, Euphorbia, and Acacia and tangled shrub clumps of Grewia, Lanea, Lecaniodiscus, Commiphora, Thespesia, Dobera, Suaeda, etc.

Bavazzano (1972) describes the species as a "Plante vivace. Feuilles opposées dentelées....Plante herbacée dressée. Feuilles vert clair, dentelées, opposées, au bas des tiges. Épis allongées formant le haut des tiges", citing Chedeville 1301 & 1686 from Afars & Issis. Baker (1900) cites only the type collection, Hildebrandt 2737, from Kenya. Greenway (1969) cites Gillett 17208, Greenway & Kabuie 12915, and Hucks 773a from Tsavo East National Park.

Vernacular names recorded for the species are "ubololu", "yiblula", and "yoblulu" from Somaliland.

Material of C. hildebrandtii has been distributed in some herbaria as something in the Scrophulariaceae.

Additional citations: UGANDA: Dyson-Hudson 82 (S, W--2568360), 249 (W--2568336). TANZANIA: Tanganyika: Drummond & Hemsley 2338

(B); M. Richards 25278 (N). KENYA: F. R. Fosberg 49951 (W—2579860a); J. B. Gillett 13053 (B); Polhill & Paulo 587 (S); Strid 2512 (Go), 3915 (Go).

CHASCANUM HUMBERTI Moldenke

Additional bibliography: Moldenke, *Phytologia* 7: 361—362. 1961; Moldenke, *Fifth Summ.* 1: 259 (1971) and 2: 857. 1971.

CHASCANUM INCISUM (H. H. W. Pearson) Moldenke

Additional & emended synonymy: Bouchea incisa H. H. W. Pearson, *Trans. S. Afr. Phil. Soc.* 15: 180. 1905 [not B. incisa Rusby, 1907]. Chascanum incisum Moldenke, in herb.

Additional & emended bibliography: H. H. W. Pearson, *Trans. S. Afr. Phil. Soc.* 15: 180. 1905; Fedde & Schust. in *Just, Bot. Jahresber.* 60 (2): 571. 1941; Moldenke, *Biol. Abstr.* 36: 2311. 1961; Moldenke, *Phytologia* 7: 369—370. 1961; Moldenke, *Fifth Summ.* 1: 253, 255, & 400 (1971) and 2: 857. 1971.

The corollas on E. E. Galpin 508m are said to have been "white" when fresh, but on Meeuse 10264 as "pale buffy-cream". In addition to the months previously reported by me, this species has been collected in anthesis in October. It has been found growing in loam soil. Material has been misidentified and distributed in some herbaria under the name Bouchea pinnatifida Schau.

Additional citations: SOUTH AFRICA: Transvaal: E. E. Galpin 508m (Ew); Meeuse 10264 (S).

CHASCANUM INCISUM var. CANESCENS Moldenke

Additional bibliography: Moldenke, *Phytologia* 7: 370. 1961; Friedrich-Holzhammer, Meeuse, & Meikle, *Prodr. Fl. Südw. Afr.* 13 (122): 3. 1967; Moldenke, *Fifth Summ.* 1: 259 (1971) and 2: 857. 1971.

Friedrich-Holzhammer and his associates (1967) reduce this taxon to synonymy under C. pumilum E. Mey. Seydel describes the plant as annual or perennial.

Additional citations: NAMIBIA: Seydel 131 (S).

CHASCANUM INSULARE Moldenke

Additional & emended bibliography: Hill & Salisb., *Ind. Kew. Suppl.* 10: 49. 1947; Moldenke, *Phytologia* 4: 445—446 (1953) and 7: 370—371. 1961; Moldenke, *Fifth Summ.* 1: 259 (1971) and 2: 857. 1971.

CHASCANUM INSULARE var. CANESCENS Moldenke

Additional bibliography: Moldenke, *Phytologia* 4: 445—446 (1953) and 7: 370. 1961; Moldenke, *Fifth Summ.* 1: 259 (1971) and 2: 857. 1971.

CHASCANUM INSULARE var. HUMBERTI Moldenke

Additional bibliography: Moldenke, *Phytologia* 7: 370—371. 1961; Moldenke, *Fifth Summ.* 1: 259 (1971) and 2: 857. 1971.

[to be continued]