

A PROVISIONAL CHECKLIST OF THE CONTINENTAL AFRICAN ORCHIDACEAE. 5. VANILLOIDEAE

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Abstract: A checklist of the vanilloid orchids of continental Africa is provided. 32 species in six genera are listed.

Key words: Magnoliophyta, Orchidaceae, Vanilloideae, checklist, continental Africa

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INTRODUCTION

Subfamily Vanilloideae is one of the least numerous taxa of that rank in continental Africa as they make only six genera and 32 species. Alphabetical list of genera examined is given below. *Auxopus* Schltr., *Didymoplexis* Griff., *Epipogium* C. C. Gmel. ex Borkh., *Gastrodia* R. Br., *Nervillia* Comm. ex Gaudich. in Freyc. and *Vanilla* Mill.

LIST OF GENERA AND SPECIES

Subfamily VANILLOIDEAE (Lindl.) Szlach.

Fragm. Flor. Geobot., Suppl. 3: 48. 1995.

Tribe VANILLEAE Blume

Rumphia 1: 196. 1835.

Subtribe VANILLINAE Lindl.

Gen. Spec. Orchid. Pl.: 429. 1840.

A subtribe consists of five genera (Szlachetko 1995).

Vanilla Mill.

Gard. Dict. Abr., ed. 4: 28. 1754.

A genus of about 100 species in the tropics and subtropics of the Old and New World ex-

cluding Australia (la Croix & Cribb 1995; Arenas Soto 2003).

1. *Vanilla africana* Lindl.

J. Linn. Soc., Bot. 6: 137. 1862.

DISTRIBUTION. Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Nigeria, Cameroun, C.A.R., Principe, Equatorial Guinea (Rio Muni), Gabon, Congo, D.R.C. (Mayombe, Bas-Congo, Kasai, Forestier Central, Ubangi-Uele) and Tanzania (Durand & Schinz 1895; Rolfe 1896, 1897; Guinea 1946; Portères 1954; Summerhayes 1968; Hall & Bowling 1969; Sanford 1971; Exell 1973; Geerinck 1974, 1984; Hunt 1974; Cribb & Perez-Vera 1975; Perez-Vera 1976; Adam 1982; Tang & Cribb 1983; Cribb & Hunt 1984; Cribb & Fay 1987; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998; Aedo *et al.* 1999; Stévant *et al.* 2000; Stévant & de Oliveira 2000; Perez-Vera 2003; Szlachetko *et al.*, in press).

– subsp. *africana*

Vanilla crenulata Rolfe, J. Linn. Soc., Bot. 32: 477. 1896.

Vanilla crenata A. Chev., Expl. Bot. Afr. Occ. Fr.: 624. 1920, *nom nud.*

Vanilla africana Lindl. var. *gillettii* (De Wild.) Portères, Bull. Soc. Bot. France 98: 126. 1951.

Vanilla africana Lindl. var. *laurentiana* (De Wild.) Portères, Bull. Soc. Bot. France **98**: 126. 1951.

DISTRIBUTION. Guinea, Sierra Leone, Liberia, Ivory Coast, Ghana, Nigeria, Cameroun, Principe, Equatorial Guinea (Rio Muni), Gabon, Congo and D.R.C. (Rolfe 1896, 1897; Dandy 1944; Portères 1954; Summerhayes 1968; Hall & Bowling 1969; Exell 1973; Cribb & Perez-Vera 1975; Perez-Vera 1976; Adam 1982; Tang & Cribb 1983; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998; Stévant *et al.* 2000; Stévant & de Oliveira 2000; Perez-Vera 2003; Szlachetko *et al.*, in press).

– subsp. *ramosa* (Rolfe) Szlach. & Olsz.

Fl. Camer. **34**(1): 286, pl. 101A-F. 1998.

Vanilla ovalifolia Rolfe, J. Linn. Soc., Bot. **32**: 457. 1896.

Vanilla ramosa Rolfe, J. Linn. Soc., Bot. **32**: 457. 1896.

Vanilla laurentiana De Wild., Not. Pl. Util. Congo: 327. 1904.

Vanilla laurentiana De Wild. var. *gilletii* De Wild., Not. Pl. Util. Congo: 328. 1904.

Vanilla zanzibarica Rolfe, Bull. Misc. Inform. Kew **1906**: 116. 1906.

Vanilla beauchenii A. Chev., Etud. Fl. Afr. Centr. Fr. **1**: 297. 1913, *nom. nud.*

DISTRIBUTION. Ghana, Nigeria, Cameroun, C.A.R., Equatorial Guinea (Rio Muni), Gabon, Congo, D.R.C. and Tanzania (Rolfe 1896, 1897; Guinea 1946; Portères 1954; Summerhayes 1968; Hall & Bowling 1969; Sanford 1971; Hunt 1974; Tang & Cribb 1983; Cribb & Hunt 1984; Cribb & Fay 1987; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998; Aedo *et al.* 1999; Szlachetko *et al.*, in press).

– subsp. *cucullata* (Kraenzl. ex Heinr. Braun & K. Schum.) Szlach. & Olsz.

Fl. Camer. **34**(1): 286, pl. 101M-R. 1998.

Vanilla cucullata Kraenzl. ex Heinr. Braun & K. Schum., Mitth. Deutsch. Schutzgeb.: 2: 161. 1889.

DISTRIBUTION. Cameroun and ?Equatorial Guinea (Rio Muni) (Durand & Schinz 1895; Rolfe 1896, 1897; Guinea 1946; Portères 1954; Szlachetko & Olszewski 1998).

NOTE. Aedo *et al.* (1999) did not confirm citation from Equatorial Guinea.

2. *Vanilla bampsiana* Geerinck

Bull. Jard. Bot. Belg. **52**(3–4): 345, fig. 1. 1982.

DISTRIBUTION. D.R.C. (Forestier Centrale) (Geerinck 1982, 1984).

3. *Vanilla chalogii* Finet

Bull. Soc. Bot. France **56**: 102. 1909.

DISTRIBUTION. Gabon (Portères 1954; Szlachetko & Olszewski 1998; Szlachetko *et al.*, in press).

4. *Vanilla grandifolia* Lindl.

J. Linn. Soc., Bot. **6**: 138. 1862.

DISTRIBUTION. Principe, Gabon and D.R.C. (Bas-Congo, Forestier-Central) (Durand & Schinz 1895; Rolfe 1896, 1897; Dandy 1944; Portères 1954; Exell 1973; Geerinck 1974, 1984; Szlachetko & Olszewski 1998; Stévant *et al.* 2000; Stévant & de Oliveira 2000; Szlachetko *et al.*, in press).

5. *Vanilla hallei* Szlach. & Olsz.

Fl. Camer. **34**(1): 282, pl. 100N-T. 1998.

DISTRIBUTION. Gabon (Szlachetko & Olszewski 1998; Szlachetko *et al.*, in press).

6. *Vanilla heterolopha* Summerh.

Bull. Misc. Inform. Kew **1938**(1): 149. 1938.

DISTRIBUTION. Gabon (Summerhayes 1938; Portères 1954; Szlachetko & Olszewski 1998; Szlachetko *et al.*, in press).

7. *Vanilla imperialis* Kraenzl.

Notizbl. Bot. Gart. Berlin-Dahlem **4**: 155. 1896.

Vanilla lujae De Wild., Belgique Colon. **10**: 28. 1904.

Vanilla imperialis Kraenzl. var. *congolensis* De Wild., Rev. Hist. Nat. Appl. **2**: 188. 1921.

Vanilla grandiflora Lindl. var. *lujae* (De Wild.)

Geerinck, Bull. Soc. Roy. Bot. Belgique **107**(1): 58, fig. 1–3. 1974.

DISTRIBUTION. Sierra Leone, Ivory Coast, Ghana, Cameroun, C.A.R., Equatorial Guinea (Rio Muni); Gabon, Congo, D.R.C. (Kasai, Forestier Central, Ubangi-Uele), Uganda, Tanzania and Angola (Rolfe 1896, 1897; Guinea 1946; Portères 1954; Robyns & Tournay 1955; Jaeger *et al.* 1968; Piers 1968; Summerhayes 1968; Hall & Bowling 1969; Sanford 1971; Geerinck 1974, 1984; Cribb & Perez-Vera 1975; Perez-Vera 1976; Schelpe 1976a; Cribb & Hunt 1984; Cribb & Fay 1987; Szlachetko & Olszewski 1998; Aedo *et al.* 1999; Perez-Vera 2003; Szlachetko *et al.*, in press).

8. *Vanilla nigerica* Rendle

Cat. Talb. Niger Pl.: 108. 1913.

DISTRIBUTION. Nigeria, Cameroun and ?Equatorial Guinea (Rio Muni) (Guinea 1946; Portères 1954; Summerhayes 1968; Tang & Cribb 1983).

NOTE. Aedo *et al.* (1999) did not confirm citation from Equatorial Guinea.

9. *Vanilla ochyrae* Szlach. & Olsz.

Fl. Camer. **34**(1): 291, pl. 103F. 1998.

DISTRIBUTION. Cameroun (Szlachetko & Olszewski 1998).

10. *Vanilla polylepis* Summerh.

Bot. Mus. Leaflet **14**(9): 219. 1951.

Vanilla sp. *sensu* Piers, Orchid. E. Afr.: 82, figs. 27, 28. 1968.

DISTRIBUTION. D.C.R. (Haut-Katanga), Kenya, Angola, Zambia, Malawi and Zimbabwe (Summerhayes 1951; Portères 1954; Piers 1968; Geerinck 1974, 1984; Hunt 1974; Schelpe 1976a; Williamson 1977; Cribb & Hunt 1984; la Croix *et al.* 1991; la Croix & Cribb 1995; la Croix & Bell 1998; Szlachetko & Olszewski 1998).

11. *Vanilla roscheri* Rchb.f.

Linnaea **41**: 65. 1877.

DISTRIBUTION. Ethiopia, Kenya, Tanzania, Mozambique and R.S.A. (KwaZulu-Natal) (Rolfe 1896,

1897; Portères 1954; Piers 1968; Schelpe 1976b; Cribb & Hunt 1984; Reid 1993; la Croix & Cribb 1995; Bidgood & Cribb 1999; Kurzweil 1999).

NOTE. This species is very closely allied to and possibly conspecific with *V. phalaenopsis* Rchb.f. from the Seychelles and *V. madagascariensis* Rolfe from Madagascar (Cribb & Hunt 1984).

12. *Vanilla sereti* De Wild.

Bull. Jard. Bot. État. **5**: 180. 1916.

Vanilla tisseranti Portères, Bull. Soc. Bot. France **98**: 93. 1951.

DISTRIBUTION. C.A.R. and D.R.C. (Frontier Central, Ubangi-Uele) (Portères 1954; Geerinck 1974, 1984; Cribb & Fay 1987; Szlachetko & Olszewski 1998).

ADDITIONAL SPECIES

Vanilla planifolia Andrews

Bot. Repos. **8**: t. 538. 1808.

DISTRIBUTION. Mexico, Guatemala, Belize, Honduras, Salvador, Costa Rica, Panama and probably also West Indies (Williams 1951).

NOTE. This species is cultivated in many parts of tropical Africa and plants are often found in a more or less naturalized state (Cribb & Hunt 1984).

Tribe *NERVILIEAE* Dressler

Lindleyana **5**(2): 124. 1990.

Subtribe *NERVILIINAE* Schltr.

Notizbl. Bot. Gart. Berlin-Dahlem **9**: 571. 1926.

A monotypic subtribe (Szlachetko 1995).

Nervilia Comm. *ex* Gaudich. *in* Freyc.

Voy. Monde Bot.: t. 35. 1827, & 421. 1829, *nom. conserv.*

Stellorkis Thouars, Nouv. Bull. Sci. Soc. Philom. Paris **1**: 317. 1809, *nom. rejic.*

Apostellis A. Rich., Monogr. Orchid. Iles de France et de Bourbon: 41. 1828.

Haplostellis Endl., Gen. pl. secund. ord. natur. disp.: 219. 1837.

Pogonia Juss. sect. *Nervilia* Lindl., Gen. Sp. Orchid. Pl.: 414. 1840.

Bolborchis Zoll. & Moritz in Moritz, Syst. Verz. Pfl. Zoll.: 89. 1846.

A genus of about 60 species distributed in tropical and subtropical Africa, Asia and Australia (Pettersson 1990b).

1. *Nervilia adolphi* Schltr.

Bot. Jahrb. Syst. **53**: 552. 1915.

DISTRIBUTION. Mali, Senegal, Guinea, Ivory Coast, Ghana, Togo, Nigeria, C.A.R., Equatorial Guinea (Bioko), D.R.C. (Bas-Congo, Forestier Central, Bas-Katanga, Haut-Katanga, Ubangi-Uele, Lac Albert, Lacs Edouard et Kivu), Burundi, Rwanda, Uganda, Tanzania, Zambia, Malawi, Mozambique and Zimbabwe (Robyns & Tournay 1955; Hallé & Toilliez 1971; Sanford 1971; Exell 1973; Cribb & Perez-Vera 1975; Perez-Vera 1976, 2003; Williamson 1977; Tang & Cribb 1983; Cribb 1984; Geerinck 1984; Boudet & Lebrun 1986; Cribb & Fay 1987; Berghen 1988; Pettersson 1990b, 1992; la Croix *et al.* 1991; la Croix & Cribb 1995; Geerinck & Arbonnier 1995; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998; Aedo *et al.* 1999).

– var. *adolphi*

Nervilia fuerstenbergiana auct. non Schltr.

DISTRIBUTION. Ivory Coast, Ghana, Nigeria, Equatorial Guinea (Bioko), D.R.C. (Haut-Katanga), Rwanda, Uganda, Tanzania, Zambia, Malawi, Mozambique and Zimbabwe (Cribb 1984; Pettersson 1990b, 1992; la Croix & Cribb 1995; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998).

– var. *seposita* N. Hallé & Toill.-Gen.

Adansonia, sér. 2, **11**(3): 460. 1971.

Nervilia adolphi Schltr. *sensu* Robyns, Fl. Sperm. Parc Nat. Albert **3**: 458. 1955.

DISTRIBUTION. Mali, Senegal, Guinea, Ivory Coast, C.A.R., Equatorial Guinea (Bioko), D.R.C.

(Bas-Congo, Forestier-Central, Ubangi-Uele, Lac Albert, Lacs Edouard et Kivu), Burundi, Uganda and Zambia (Robyns & Tournay 1955; Hallé & Toilliez 1971; Cribb & Perez-Vera 1975; Perez-Vera 1975, 2003; Cribb 1984; Geerinck 1984; Boudet & Lebrun 1986; Cribb & Fay 1987; Berghen 1988; Pettersson 1990b & 1992; la Croix & Cribb 1995; Geerinck & Arbonnier 1996; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998).

2. *Nervilia ballii* G. Will.

Pl. Syst. Evol. **134**: 66, t. 7. 1980.

Nervilia sp. G. Will., Orchid. S. Centr. Afr.: 143, t. 76, fig. 7. 1977 (*Williamson & Drummond 1639*).

Nervilia purpurata auct. non (Rchb.f. & Sond.) Schltr.

DISTRIBUTION. Tanzania, Zambia, Malawi, Mozambique and Zimbabwe (Williamson 1980; Cribb 1984; Pettersson 1990b; la Croix *et al.* 1991; la Croix & Cribb 1995).

3. *Nervilia bicarinata* (Blume) Schltr.

Bot. Jahrb. Syst. **45**: 405. 1911.

Pogonia bicarinata Blume, Coll. Orchid.: 152, pl. 60/1 A-D. 1859.

Pogonia commersonii Blume, Coll. Orchid.: 152. 1859.

Begonia monophylla Pourr. in DC., Prodr. Reg. Veg. **15**(1): 403. 1864, *nom nud.*, *pro parte*.

Pogonia umbrosa Rchb.f., Flora **50**: 102. 1867.

Pogonia viridiflava Rchb.f., Flora **65**: 532. 1882.

Pogonia barklyana Rchb.f., Gard. Chron. **23**: 597. 1885.

Nervilia umbrosa (Rchb.f.) Schltr., Westaf. Kautschuk-Exp.: 274. 1900.

Nervilia barklyana (Rchb.f.) Schltr., Bot. Jahrb. Syst. **45**: 404. 1911.

Nervilia viridiflava (Rchb.f.) Schltr., Bot. Jahrb. Syst. **45**: 404. 1911.

Nervilia commersonii (Blume) Schltr., Bot. Jahrb. Syst. **45**: 405. 1911.

Pogonia ghindana Fiori, Nuovo Giorn. Bot. Ital. n.s. **19**: 430, fig. 2. 1912.

Pogonia chariensis A. Chev., Et. Fl. Afr. Centr. Fr. **1**: 297. 1913, *nom. nud.*

Pogonia djalonensis A. Chev., Expl. Bot. Afr. Occ. Fr. **1**: 620. 1920, *nom nud.*

Nervilia sp. Robyns, Fl. Sperm. Parc. Nat. Albert **3**: 458. 1955 (*Bequaert 5150*).

Nervilia sp. near *N. umbrosa* (Rchb.f.) Schltr.: Piers, Orchid. E. Afr.: 299. 1968, *pro parte*.

Nervilia ghindana (Fiori) Cufod., Bull. Jard. Bot. Belg. **42**(3, Suppl.): 1611. 1972.

DISTRIBUTION. Burkina Faso, Chad, Ethiopia, Senegal, Guinea-Bissau, Guinea, Sierra Leone, Ivory Coast, Ghana, Togo, Benin, Nigeria, Cameroun, C.A.R., Sao Tome, Principe, Equatorial Guinea (Annobon), Congo, D.R.C. (Bas-Congo, Kasai, Forestier Central, Lac Albert, Lacs Edouard et Kivu, Haut-Katanga), Uganda, Tanzania, Angola, Zambia, Malawi, Zimbabwe, R.S.A. (Kwa-Zulu-Natal, Mpumalanga, Northern Province), Madagascar, Comoros, Mascarene Is., Oman and Yemen (Durand & Schinz 1895; Rolfé 1897; Perrier de la Bathie 1939; Dandy 1944; Guinea 1946; Robyns & Tournay 1955; Piers 1968; Summerhayes 1968; Hallé & Toilliez 1971; Cufodontis 1972; Exell 1973; Williamson 1977; Cribb 1979, 1984; Adam 1982; Brunel & Butzin 1984; Geerinck 1984; Lebrun & Gaston 1986; Cribb & Fay 1987; Pettersson 1990b, 1992; la Croix *et al.* 1991; Lebrun *et al.* 1991; Robbins 1992; Reid 1993; la Croix & Cribb 1995; Geerinck & Arbonnier 1996; Cribb & Thomas 1997; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998; Linder & Kurzweil 1999; Du Puy *et al.* 1999; Stévant *et al.* 2000; Stévant & de Oliveira 2000; Perez-Vera 2003).

NOTE. Petterson (1990b) did not confirm citation from Liberia.

4. *Nervilia crociformis* (Zoll. & Moritz) Seidenf.

Dansk Bot. Ark. **32**(2): 151. 1978.

Bolborchis crociformis Zoll. & Moritz in Moritz, Syst. Verz. Pfl. Zoll.: 89. 1846.

Pogonia bollei Rchb.f., Xenia Orch. **2**: 88. 1874.

Pogonia prainiana King & Pantl., J. Asiat. Soc. Bengal **65**: 129. 1896.

Nervilia crispata (Blume) Schltr. ex Kraenzl. in

K.Schum. & Lauterb., Fl. Deutsch. Schutz. Südsee.: 240. 1901.

Nervilia bollei (Rchb.f.) Schltr., Bot. Jahrb. Syst. **45**: 405. 1911.

Nervilia humilis Schltr., Bot. Jahrb. Syst. **53**: 551. 1915.

Nervilia reniformis Schltr., Bot. Jahrb. Syst. **53**: 551. 1915.

Pogonia fineti A. Chev., Expl. Bot. Afr. Occ. Fr. **1**: 620. 1920, *nom. nud.*

Nervilia francoisii H. Perrier ex François, Rev. Hort., n. s. **21**: 304. 1928 (in adnot.), *nom. nud.*

Nervilia afzelii Schltr. var. *grandiflora* Summerh., Bull. Misc. Inform. Kew **1936**(3): 222. 1936.

Pogonia crispata Blume, Ann. Mus. Bot. Lugduno-Batavum: 32. 1949.

Nervilia bathie Senghas, Adansonia, sér. 2, **4**: 303, fig. 1. 1964.

Nervilia erosa P. J. Cribb, Kew Bull. **32**(1): 155. 1977.

Nervilia sp. G. Will., Orchid. S. Centr. Afr.: 140. 1977 (*Williamson & Drummond 1679*).

Nervilia prainiana (King & Pantl.) Seidenf., Dansk Bot. Ark. **32**(2): 149, fig. 91. 1978.

Nervilia afzelii auct. *non* Schltr.

DISTRIBUTION. Cape Verde Is., Mali, Ethiopia, Senegal, Guinea, Sierra Leone, Ivory Coast, Ghana, Togo, Nigeria, Cameroun, C.A.R., Congo, D.R.C. (Ubangi-Uele, Lac Albert, Haut-Katanga), Burundi, Tanzania, Zambia, Malawi, Mozambique, Zimbabwe, R.S.A. (Mpumalanga), Swaziland, Madagascar, Mascarene Is., Oman, India, Nepal, Thailand, Indo-China, Malaysia, Indonesia, Philippines, New Guinea and Australia (Summerhayes 1936, 1968; Perrier de la Bathie 1939; Jaeger *et al.* 1968; Hallé & Toilliez 1971; Sanford 1971; Exell 1973; Cribb & Perez-Vera 1975; Perez-Vera 1976, 2003; Cribb 1977; Williamson 1977, 1983; Tang & Cribb 1983; Brunel & Butzin 1984; Cribb 1984; Geerinck 1984; Boudet & Lebrun 1986; Cribb & Fay 1987; Pettersson 1990b, 1992; la Croix *et al.* 1991; Robbins 1992; Hansen & Sunding 1993; Reid 1993; la Croix & Cribb 1995; Cribb & Thomas 1997; Szlachetko & Olszewski 1998; Aedo *et al.* 1999; Linder & Kurzweil 1999; Du Puy *et al.* 1999).

5. *Nervilia fuerstenbergiana* Schltr.

Repert. Spec. Nov. Regni Veg. **9**: 331. 1911.

DISTRIBUTION. Sierra Leone, Liberia, Ivory Coast, Ghana, Togo, Nigeria, Cameroun and Equatorial Guinea (Bioko) (Guinea 1946; Summerhayes 1968; Hallé & Toilliez 1971; Cribb & Perez-Vera 1975; Perez-Vera 1976, 2003; Tang & Cribb 1983; Brunel & Butzin 1984; Cribb 1984; Pettersson 1990b; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998).

6. *Nervilia gassneri* Borge Pett.

Nordic J. Bot. **9**(5): 492. 1990.

Nervilia gassneri Borge Pett., Lindleyana **4**: 38. 1989, *nom. nud.*

Nervilia adolphii sensu Stewart *et al.*, Wild Orchid. S. Afr.: 213. 1982, *pro parte.*

Nervilia adolphi auct. *non* Schltr.

Nervilia fuerstenbergiana auct. *non* Schltr.

DISTRIBUTION. Tanzania, Zambia, Malawi, Zimbabwe and R.S.A. (Northern Province) (Stewart *et al.* 1982; Cribb 1984; Pettersson 1990a-b; Reid 1993; la Croix & Cribb 1995; Linder & Kurzweil 1999).

7. *Nervilia kotschy* (Rchb.f.) Schltr.

Bot. Jahrb. Syst. **45**: 404. 1911.

Pogonia kotschy Rchb.f., Oesterr. Bot. Z. **14**: 338. 1864.

Nervilis similis Schltr., Bot. Jahrb. Syst. **53**: 554. 1915.

DISTRIBUTION. Mali, Chad, Sudan, Ethiopia, Senegal, Guinea, Sierra Leone, Ivory Coast, Ghana, Togo, Benin, Nigeria, C.A.R., ?Equatorial Guinea (Rio Muni), D.R.C. (Bas-Katanga, Ubangi-Uele, Haut-Katanga), Uganda, Kenya, Tanzania, Angola, Zambia, Malawi, Mozambique, Zimbabwe, R.S.A. (Mpumalanga, Gauteng, North-West) and Madagascar (Durand & Schinz 1895; Rolfe 1897; Perrier de la Bathie 1939; Guinea 1946; Andrews 1956; Jaeger *et al.* 1968; Summerhayes 1968; Cribb & Perez & Vera 1975; Perez-Vera 1976, 2003; Wickens 1976; Williamson 1977; Tang & Cribb 1983; Cribb 1984; Geerinck

1984; Boudet & Lebrun 1986; Lebrun & Gaston 1986; Cribb & Fay 1987; Hiepko & Scholz 1989; Pettersson 1990a-b, 1992; la Croix *et al.* 1991; Reid 1993; Szlachetko & Olszewski 1998; Linder & Kurzweil 1999; Du Puy *et al.* 1999).

NOTE. Aedo *et al.* (1999) did not confirm citation from Equatorial Guinea.

– var. *kotschy*

Pogonia abyssinica Chiov., Ann. Bot. (Rome) **9**: 136. 1911.

Nervilia sakoae Jum. & H. Perrier, Ann. Fac. Sci. Marseille **21**(2): 194. 1912.

Pogonia sakoae Moreau, Rev. Gén. Bot. **24**: 98, fig. 11, 1912, *nom. nud.*

Nervilia diantha Schltr., Bot. Jahrb. Syst. **53**: 553. 1915.

Nervilia abyssinica (Chiov.) Schltr., Repert. Spec. Nov. Regni Veg. **16**: 356. 1920.

Nervilia purpurata auct. *non* (Rchb.f. & Sond) Schltr.

DISTRIBUTION. Mali, Chad, Sudan, Ethiopia, Senegal, Guinea, Sierra Leone, Ivory Coast, Ghana, Togo, Benin, Nigeria, D.R.C. (Bas-Katanga, Ubangi-Uele, Haut-Katanga), Uganda, Kenya, Tanzania, Zambia, Malawi, Mozambique, Zimbabwe and Madagascar (Perrier de la Bathie 1939; Jaeger *et al.* 1968; Cufodontis 1972; Pettersson 1990b, 1992; la Croix & Cribb 1995; Szlachetko & Olszewski 1998).

– var. *purpurata* (Rchb.f. & Sond.) Borge Pett.

Nordic J. Bot. **9**(5): 489. 1990.

Pogonia purpurata Rchb.f. & Sond. *in* Rchb.f., Flora **48**: 184. 1865.

Nervilia purpurata (Rchb.f. & Sond.) Schltr. *in* Warb., Kunene-Samb.-Expéd. Baum.: 210. 1903.

Nervilia dalbergiae Jum. & H. Perrier, Ann. Fac. Sci. Marseille **21**(2): 196. 1912.

Pogonia lanceolata Moreau, Rev. Gén. Bot. **24**: 98, fig. 12. 1912, *nom. nud.*

DISTRIBUTION. Sudan, Ethiopia, ?Equatorial Guinea (Rio Muni), Tanzania, Angola, Zambia, Malawi, Mozambique, Zimbabwe, R.S.A. (Mpumalanga, Gauteng, North-West) and Madagascar

(Durand & Schinz 1895; Rolfe 1897; Perrier de la Bathie 1939; Guinea 1946; Jaeger *et al.* 1968; Williamson 1977; Cribb 1984; Pettersson 1990a-b; Reid 1993; la Croix & Cribb 1995; Cribb & Thomas 1997; Linder & Kurzweil 1999; Du Puy *et al.* 1999).

NOTE. Aedo *et al.* (1999) did not confirm citation from Equatorial Guinea.

8. *Nervilia pectinata* P. J. Cribb

Kew Bull. **32**(1): 153, t. 9. 1977.

Nervilia sp. G. Will., Orchid. S. Centr. Afr.: 146. 1977 (*Williamson 2102*).

DISTRIBUTION. Gabon, Tanzania, Zambia, Malawi, Mozambique and Zimbabwe (Cribb 1977; Williamson 1977; Cribb 1984; Pettersson 1990b; la Croix *et al.* 1991; la Croix & Cribb 1995; Szlachetko *et al.*, in press).

9. *Nervilia petraea* (Afzel. ex Sw.) Summerh.

Bot. Mus. Leaflet **11**(9): 249. 1945.

Arethusa petraea Afzel. ex Sw., Kongl. Vetensk. Acad. Nya Handl. ser. 2, **21**: 230. 1800, *nom. nud.*

Arethusa petraea Afzel. ex Sw., Neues J. Bot. **1**(1): 62. 1805.

Arethusa simplex Thouars, Orchid. Iles Austr. Afr. tab. gen.: 24. 1822.

Stellorkis apostellis Thouars, Orchid. Iles Austr. Afr. tab. gen.: 24. 1822.

Epidendrum simplex (Thou.) Spreng., Syst. Veg.: 736. 1826.

Aplostellis ambigua A. Rich., Monogr. Orchid. Iles de France et de Bourbon: 36. 1828, *nom. illegit.*

Haplostellis truncata Lindl., Gen. Sp. Orchid. Pl.: 411. 1840, *nom. illegit.*

Pogonia simplex (Thouars) Rchb.f., Xenia Orch. **2**: 92. 1878.

Pogonia thouarsii sensu Rolfe, F.T.A. **7**: 187. 1897.

Nervilia afzelii Schltr., Bot. Jahrb. Syst. **45**: 402. 1911.

Nervilia simplex (Thouars) Schltr., Bot. Jahrb. Syst. **45**: 410. 1911, *pro parte*, excl. syn. *Pogonia thouarsii*.

DISTRIBUTION. ?Guinea, Sierra Leone, Ivory Coast, Ghana, Nigeria, Cameroun, C.A.R., Gabon,

Congo, D.R.C. (Bas-Congo, Ubangi-Uele, Haut-Katanga); Uganda, Kenya, Tanzania, Zambia, Malawi, Mozambique, Zimbabwe, Madagascar and Mascarene Is. (Durand & Schinz 1895; Rolfe 1897; Perrier de la Bathie 1939; Summerhayes 1945; Jaeger *et al.* 1968; Summerhayes 1968; Hallé & Toilliez 1971; Perez-Vera 1976, 2003; Williamson 1977; Adam 1982; Tang & Cribb 1983; Geerinck 1984; Cribb & Fay 1987; Pettersson 1990b, 1992; la Croix *et al.* 1991; Arbonnier & Geerinck 1993; la Croix & Cribb 1995; Szlachetko & Olszewski 1998; Du Puy *et al.* 1999).

NOTE. Pettersson (1990b) did not confirm citation from Guinea.

10. *Nervilia renschiana* (Rchb.f.) Schltr.

Bot. Jahrb. Syst. **45**: 404. 1911.

Pogonia renschiana Rchb.f., Bot. Zeitung **39**(28): 449. 1881.

Nervilia insolata Jum. & H. Perrier, Ann. Fac. Sci. Marseille **21**: 192. 1912.

Nervilia grandiflora Schltr., Ann. Transvaal Mus. **10**: 241. 1924.

Nervilia natalensis Schelpe, Orchid. Rev. **74**: 394. 1966.

Nervilia sp. G. Will., Orchid. S. Centr. Afr.: 143, fig. 77/10. 1977 (*Drummond 5417*).

Nervilia purpurata sensu Stewart *et al.*, Wild. Orchid. S. Afr.: 214. 1982, *pro parte*, only pl. 32.2., col. phot.

Nervilia umbrosa sensu Schelpe, J. S. African Bot. **42**(4): 391. 1976.

DISTRIBUTION. Burkina Faso, Chad, D.R.C. (Lacs Edouard et Kivu), Burundi, Tanzania, Angola, Zambia, Malawi, Mozambique, Zimbabwe, R.S.A. (KwaZulu-Natal) and Madagascar (Durand & Schinz 1895; Perrier de la Bathie 1939; Schelpe 1976b; Williamson 1977; Stewart *et al.* 1982; Cribb 1984; Geerinck 1984; Lebrun & Gaston 1986; Pettersson 1990b, 1992; la Croix *et al.* 1991; Lebrun *et al.* 1991; Reid 1993; la Croix & Cribb 1995; Kurzweil & Linder 1999; Du Puy *et al.* 1999).

11. *Nervilia shirensis* (Rolfe) Schltr.

Bot. Jahrb. Syst. 45: 403. 1911.

Pogonia shirensis Rolfe, F.T.A. 7: 187. 1897.

Pogonia buchananii Rolfe, F.T.A. 7: 187. 1897.

Nervilia buchananii (Rolfe) Schltr., Bot. Jahrb. Syst. 45: 403. 1911.

Nervilia umbrosa auct. non (Rchb.f.) Schltr.

DISTRIBUTION. Chad, C.A.R., D.R.C. (Haut-Katanga), Burundi, Tanzania, Angola, Zambia, Malawi, Mozambique and Zimbabwe (Rolfe 1897; Lebrun *et al.* 1972; Schelpe 1976a; Williamson 1977; Cribb 1984; Geerinck 1984; Cribb & Fay 1987; Pettersson 1990b, 1992; la Croix *et al.* 1991; la Croix & Cribb 1995).

12. *Nervilia stolziana* Schltr.

Bot. Jahrb. Syst. 53: 550. 1915.

Nervilia fuerstenbergiana auct. non. Schltr.

DISTRIBUTION. D.R.C. (Haut-Katanga), Tanzania, Zambia, Malawi and Mozambique (Williamson 1977; Cribb 1984; Geerinck 1984; Pettersson 1990b, 1992; la Croix *et al.* 1991; la Croix & Cribb 1995).

13. *Nervilia subintegra* Summerh.

Bull. Misc. Inform. Kew 1938(1): 150. 1938.

Nervilia toillieziae N. Hallé & Toill.-Gen., Adansonia, sér. 2, 11(3): 455. 1971.

Nervilia sp. aff. *reniformis* Schltr. var. *afzelii* Schltr.: Jaeger *et al.*, Adansonia, sér. 2, 8(3): 303. 1968.

DISTRIBUTION. Sudan, Guinea, Sierra Leone, Ivory Coast, Ghana, Togo, Cameroun, C.A.R. and D.R.C. (Bas-Congo) (Summerhayes 1938; Jaeger *et al.* 1968; Hallé & Toilliez 1971; Cribb & Perez-Vera 1975; Perez-Vera 1976, 2003; Adam 1982; Cribb & Fay 1987; Pettersson 1990b, 1992; Szlachetko & Olszewski 1998).

Tribe *GASTRODIEAE* Lindl.

Coll. Bot. App. 1826.

Subtribe *GASTRODINAE* Lindl.

Gen. Spec. Orchid. Pl.: 383. 1840.

A small subtribe of six genera (Szlachetko 1995).

Auxopus Schltr.

Westafr. Kautsch. Exped.: 275. 1901.

A genus of three species, two in continental Africa and one in Madagascar (Hunt 1984c).

1. *Auxopus kamerunensis* Schltr.

Bot. Jahrb. Syst. 38: 4, fig. 2. 1905.

DISTRIBUTION. Liberia, Ivory Coast, Ghana, Nigeria, Cameroun, C.A.R. and ?Equatorial Guinea (Rio Muni) (Guinea 1946; Summerhayes 1968; Cribb & Perez-Vera 1975; Perez-Vera 1976, 2003; Tang & Cribb 1983; Cribb & Fay 1987; Szlachetko & Olszewski 1998).

NOTE. Aedo *et al.* (1999) did not confirm citation from Equatorial Guinea.

2. *Aauxopus macranthus* Summerh.

Kew Bull. 6(3): 467. 1952.

Auxopus kamerunensis Schltr. var. *grandiflora* Summerh., Bull. Misc. Inform. Kew 1936(3): 222. 1936.

DISTRIBUTION. Ivory Coast, Ghana, Nigeria, Cameroun, D.R.C. (Kasai) and Uganda (Summerhayes 1936, 1952, 1968; Perez-Vera 1976, 2003; Tang & Cribb 1983; Geerinck 1984; Hunt 1984c; Szlachetko & Olszewski 1998).

Didymoplexis Griff.

Calcutta J. Nat. Hist. 4. 383, t. 17. 1844.

Apetalon Wight, Ic. Pl. Ind. Or. 5: 22, t. 1758. 1851.

A genus of about 20 species, mostly Asiatic, with one in tropical and South Africa and one in Madagascar (la Croix & Cribb 1995).

1. *Didymoplexis africana* Summerh.

Kew Bull. 6(3): 465. 1952.

DISTRIBUTION. ?Ghana, ?Sao Tome, D.R.C. (Bas-Congo), Tanzania, Malawi, Mozambique and Zimbabwe (Summerhayes 1952; Geerinck 1984; Hunt 1984b; la Croix *et al.* 1991; la Croix & Cribb

1995; Szlachetko & Olszewski 1998; Stévant & de Oliveira 2000).

NOTE. Stévant & de Oliveira (2000) cited cf. *Didymoplexis africana* from Sao Tome.

2. *Didymoplexis verrucosa* J. L. Stewart & Hennessy

Amer. Orchid Soc. Bull. **49**: 841. 1980.

DISTRIBUTION. R.S.A. (KwaZulu-Natal) (Stewart *et al.* 1982; Reid 1993; Linder 1999a).

Gastrodia R.Br.

Prodr. Fl. Nov. Holl.: 330. 1810.

The number of the species in the genus is uncertain and varies from 17 to 31. They are distributed from Africa and Madagascar to eastern Siberia, Japan, Australia, New Zealand and the Pacific Islands (Szlachetko & Olszewski 1998).

1. *Gastrodia africana* Kraenzl.

Bot. Jahrb. Syst. **28**: 179. 1900.

DISTRIBUTION. Cameroun and ?Equatorial Guinea (Rio Muni) (Guinea 1946; Szlachetko & Olszewski 1998).

NOTE. Aedo *et al.* (1999) did not confirm citation from Equatorial Guinea.

2. *Gastrodia sesamoides* R. Br.

Prodr. Fl. Nov. Holl.: 330. 1810.

DISTRIBUTION. R.S.A. (W Cape) and Australia (Lewis 1950; Stewart *et al.* 1982; Reid 1993; Linder 1999b).

NOTE. This species was introduced from Australia (Linder 1999b).

Tribe *EPIPOGIEAE* Parl.

Fl. Ital. **3**: 388. 1858.

Subtribe *EPIPOGIINAE* Schltr.

Notizbl. Bot. Gart. Berlin-Dahlem **9**: 571. 1926.

A monotypic subtribe (Szlachetko 1995).

Epipogium C. C. Gmel. ex Borkh.

Tent. Disp. Pl. German.: 139. 1792.

The genus of two species, one in temperate Eurasia and one in the Old World tropics (la Croix & Cribb 1995).

1. *Epipogium roseum* (D. Don.) Lindl.

J. Linn. Soc., Bot. **1**: 177. 1857.

Limodorum roseum D. Don., Prodr. Fl. Nepal.: 30. 1825.

Epipogium nutans Rchb.f., Bonplandia **5**: 36. 1857.

Epipogium africanum Schltr., Bot. Jahrb. Syst. **45**: 399. 1911.

DISTRIBUTION. Ghana, Nigeria, Cameroun, C.A.R., Equatorial Guinea (Bioko, Annobon, Rio Muni), D.R.C. (Forestier-Central), Uganda, Kenya, Angola, Malawi, Indo-Malaysia to Australia and Pacific Islands (Durand & Schinz 1895; Rolfe 1897; Guinea 1946; Robyns & Tournay 1955; Piers 1968; Summerhayes 1968; Sanford 1971; Exell 1973; Schelpe 1976a; Geerinck 1984; Hunt 1984a; Cribb & Fay 1987; la Croix *et al.* 1991; la Croix & Cribb 1995; Olszewski & Szlachetko 1998; Szlachetko & Olszewski 1998; Aedo *et al.* 1999).

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