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Key to the groups and subgroups of species

1. Inflorescence lateral. 2
- 1.** Inflorescence apical only. 6
2. Inflorescence produced from an abortive growth from the base of the previous stem (rarely from the apex of a normal stem), commonly cultivated in the area, but not native. ***Psilanthemum*-group**
- 2.** Inflorescence produced from the middle or near the apex of the stem (sometimes also apical, in the *Aibertii*-group). 3
3. Clinandrium-hood reduced. 4
- 3.** Clinandrium-hood elongate, prominent. 5
4. Lip 4-lobed, flowers attractive, colorful. ***Oerstedella*-group**
- 4.** Lip entire or bilobed, flowers white to green. ***Pleuranthium*-group; *Dendrobii*-subgroup**
5. Inflorescences only lateral, numerous. 46.87. ***E. phragmitoides*** (*Pleuranthium*-group; *Phragmites*-subgroup)
- 5.** Inflorescences apical and lateral, few. ***Albertii*-group and subgroup**
6. Stems pseudobulbous, short, globose. 46.53. ***E. pachycoleum*** (*Kalopternix*-group; *Sepens*-subgroup)
- 6.** Stems cane-like, much longer than thick. 7
7. Inflorescence subtended by 1-3 spathaceous bracts (the spathaceous bract is produced together with the stems, and the inflorescence appears from within the bract, sometimes much later, as in *Cattleya*). 8
- 7.** Inflorescence lacking any spathaceous bract (sometimes subtended by one or several imbricating bracts). 20
8. Spathaceous bract narrow, linear, the sides parallel, length/width >8:1. 9
- 8.** Spathaceous bract wide, at least one side curved, length/width <5:1. 16
9. Inflorescence erect, flowers non-resupinate. 10
- 9.** Inflorescence erect to arching, flowers resupinate. 12
10. Lip 3-lobed. ***E. pseudomancum*** (unconfirmed, *Mancum*-group)
- 10.** Lip entire. 11
11. Lip finger-like, linear, thick, ecallose. 46.125. ***E. coryophorum*** (*Stenoglossum*-group)
- 11.** Lip cordiform-obpandurate, bicallose. 46.66. ***E. urraoëense*** (*Maderoi*-group)
12. Flowers fleshy. 13
- 12.** Flowers membranous. 14
13. Plants caespitose. ***Klotzscheanum*-group**
- 13.** Plants scandent, new stem produced from middle of previous stem.
..... 46.7. ***E. ampelomelanoxeros*** (*Ampelospathum*-group)
14. Middle lobe of lip truncate or bilobed. 15
- 14.** Middle lobe of lip acuminate. 46.85. ***E. hartmanii*** (*Pergracile*-group and subgroup)
15. Lateral lobes of the lip falcate, acute. ***Cylindraceum*-group**
- 15.** Lateral lobes of the lip rounded. 46.43. ***E. excisum*** (*Excisum*-group)
16. Spathaceous bract produced at the apex of a long, bialate peduncle, similar to the floral bracts but somewhat larger.
..... ***Albertii*-group and subgroup**
- 16.** Spathaceous bract sessile, conspicuous. 17
17. Apex of the spathaceous bract rounded, bract straight. ***Leucochilum*-group**
- 17.** Apex of the spathaceous bract acute, bract oblique, one side straight, the other rounded. 18
18. Flowers 1-2 per inflorescence, short plants, to 8 cm tall. 19
- 18.** Flowers 2-12 per inflorescence, long plants, more than 12 cm tall. ***Megalospathum*-group**
19. Floral segments very narrow, forming a tube, lip very narrow, 1-2 flowers.
..... 46.121. ***E. siphonosepalum*** (*Siphonosepalum*-group)
- 19.** Floral segments wide, spreading, lip very wide, single flower. 46.90. ***E. lambeauanum*** (*Porpax*-group)
20. Inflorescence distichous or nearly so. 21

20. Inflorescence not distichous, racemose or helicoid, generally forming a cylindrical raceme.	29
21. Inflorescence nearly distichous (sometimes hidden by apical leaf), flowers produced singly in succession.	22
21. Inflorescence clearly distichous, all flowers alternating on the same plane, produced simultaneously, or if successive, several open at one time.	23
22. Sepals spreading, lip deeply 3-lobed.	Nocturnum-group
22. Sepals reflexed, lip bilobed.	46.86. <i>E. hellerianum</i> (<i>Physinga</i> -group)
23. Inflorescence paniculate (the racemes arching-pendent).	46.46. <i>E. frutex</i> (<i>Frutex</i> -group)
23. Inflorescence racemose.	24
24. Plants clearly sympodial, caespitose or creeping.....	25
24. Plants essentially monopodial, tree-like, the stems with multiple branching.	27
25. Flowers white, usually dotted with purple, margin of lip dentate to fimbriate.	46.45. <i>E. fimbriatum</i> (<i>Fimbriatum</i> -group)
25. Flowers purple, green to yellowish, inamulate, margin entire.	26
26. Plants and flowers very small, floral bracts infundibuliform, not imbricating.	46.72. <i>E. miserrimum</i> (<i>Miserrimum</i> - group)
26. Plants intermediate, floral bracts conduplicate, usually imbricating.	Spathiger-group
27. Flowers of thin substance, nectary and lip glabrous.	Ramosum-group
27. Flowers fleshy, secund, nectary papillose in front of the stigmatic cavity and often on the disc of the lip.	28
28. Peduncle of the inflorescence filiform.	Macrostachyum-group - Elleanthoides-subgroup
28. Peduncle of the inflorescence thick.	Macrostachyum-group -Aquaticum-subgroup
29. Stems sympodial, simple, unbranched.	30
29. Stems monopodial, with a main stem branching above and thus tree-like.	47
30. Plants strictly caespitose, the new stems produced from the base of the previous stem.	31
30. Plants scandent, the new stem produced from the middle of the previous stem.	43
31. Inflorescence subcapitate, sessile.	Difforme-group
31. Inflorescence racemose or paniculate, with a clear peduncle.	32
32. Leaves semi-terete.	33
32. Leaves flat.	34
33. Sepals dorsally glandulous to puberulose.	Lanium-group
33. Sepals glabrous.	Gracillimum-group: E. rolfeanum
34. Petals filiform.	35
34. Petals more or less broad, but not filiform.	38
35. Inflorescence racemose, long pedunculate, with simple racemes, produced in succession through several years (except in <i>E. ruizianum</i> where they are simultaneous).	36
35. Inflorescence paniculate, peduncle short, about as long as the apical leaf, flowering only once.	37
36. Flowers small, fleshy, lip ecallose, pollinia obovoid, laterally compressed.	Anceps-group
36. Flowers medium sized, membranous, disc of the lip with 3 prominent ribs, pollinia laterally compressed and ancipitose, " bird-wing" type.	Turalvae subgroup
37. Margin of lip entire, surface of leaves flat.	Pseudepidendrum-group
37. Margin of lip erose-dentate or fimbriate, surface of leaves with veins clearly visibly and slightly costate.	Goodspeedianum-group
38. Stems always verrugose, with purple warts, rostellum transverse to the column, broad.	Oerstedella-group
38. Stems smooth or striated, not warty, rostellum parallel to the column, narrow.	39
39. Stems cane-like, not thickened in any part.	40
39. Stems thickened and fusiform, either throughout or near the base.	42
40. Peduncle of the inflorescence about as long as the apical leaf, flowers greenish white, in the <i>Cristatum</i> -group marked with purple or deep fuchsia.	41
40. Peduncle of the inflorescence elongate, much longer than the apical leaf, flowers colorful attractive, red, yellow, white or rose-purple.	Secundum-group
41. Bracts of the peduncle of the inflorescence conduplicate, flowers resupinate.	Cristatum-group
41. Bracts of the peduncle of the inflorescence amplexicaul, flowers non-resupinate.	46.51. <i>E. hymenodes</i> (<i>Hymenodes</i> -group)
42. Stems thickened near the base, leaves distributed in the non-thickened apical half, inflorescence with an elongate peduncle producing numerous short racemes with time.	46.20. <i>E. blepharistes</i> (<i>Blepharistes</i> -group)
42. Stems somewhat thickened throughout, leaves distributed along the thickened part of the stem.	46.6. <i>E. lanipes</i> (<i>Amblostoma</i> -group)

43. Lip ecallose, with 0-10 laminar keels. **Diothonea-group**
43. Lip bicallose, with or without ribs. 44
44. Plants pendent, mature stems with a single, pendent apical leaf. . 46.44. *E. filamentosum* (*Filamentosum*- group)
44. Plants erect or straggling, several to many spreading leaves. 45
45. Flowers red with yellow disc, colorful, peduncle of the inflorescence very long, 5-10 times longer than the apical leaf. 46.114. *E. radicans* (*Secundum*-group)
45. Flowers not red with yellow disc, drab colored, peduncle of the inflorescence shorter than the apical leaf, or if long, then filiform, the plants less than 20 cm tall. 46
46. Stems thin, leaves narrow, flowers small and delicate, lip entire, pollinia 2 or 4. 46.42. *E. vincentinum* (*Epidendropsis*-group)
46. Stems thick, leaves broad, flowers large and fleshy, lip entire to 3-lobed, pollinia always 4. 46.52. *E. luis-sanchezii* (*Incomptum*-group)
47. Raceme erect, flowers fleshy-thick, lip entire, cordiform-triangular, nectary pilose in front of the stigmatic cavity. **Macrostachyum-subgroup**
47. Raceme arching nutant, flowers fleshy, lip 3-lobed, nectary unornamented. **Andean-group**

Epidendrum albertii*-group*Key to subgroups**

1. Lateral and apical, short inflorescences, with imbricated bracts partially or totally covering the peduncle. ***Albertii*-subgroup**
1. Apical, elongate inflorescences (very rarely lateral and short), the peduncle elongate, ancapitose and bare, sometimes with a few imbricated bracts at the apex. ***Allenii*-subgroup**

Epidendrum albertii*-subgroup*Key to species**

1. Leaves oblong-lanceolate, 0.3-0.7(1.3) cm wide; bracts of the peduncle very small, ca 3 mm long; lip subreniform, the apex apiculate; sepals 11 mm long. 46.1. ***E. cuatrecasii***
1. Leaves narrowly elliptic to oblong-lanceolate, 1.2-4.6 cm wide; bracts of the peduncle large, 10-49 mm long; lip pentagonal, hexagonal, cuneate or basal half semielliptic, apical half triangular; sepals 13-28 mm long. 2
2. Apex of leaves acuminate; petals oblanceolate; basal half of the lip semi elliptic, apical half triangular. ***E. hygrohylephilum*** (unconfirmed)
2. Apex of leaves rounded, obtuse or acute; lip pentagonal, hexagonal or cuneate. 3
3. Sepals ensiform, 28 mm long; lip cuneate, apex acuminate. 46.2. ***E. ingrabrachyphyllum***
3. Sepals oblong-oblanceolate or elliptic, 13-19 mm long; lip pentagonal-sub-orbicular or hexagonal, apex truncate. 4
4. Leaves elliptic, the apex rounded, 4.3-9.5 cm long; sepals 13-15.4 mm long; lip provided with ribs or multiple thickened veins. 5
4. Leaves elliptic-oblanceolate, the apex acute, 13-18 cm long; sepals 18-19 mm long; lip without multiple ribs or thickened veins, only with a low central rib. ***E. hexagonum*** (unconfirmed)
5. Flowers green tinged with rose-purple; petals spatulate-obtrulate, 14 x 5.4 mm; lip with multiple thickened veins throughout. ***E. brachypodum*** (unconfirmed)
5. Flowers pale green, concolor; petals linear, 12-15 x mm; lip with 5-7 ribs radiating from the base to the apex. 46.3. ***E. phyllocharis***

Epidendrum allenii*-subgroup*Key to complexes**

1. Lip clearly 3-lobed; petals oblanceolate or li near (though never filiform); pollinia 8. 46.5. ***E. nora-mesae*** (*Convergens*-complex)
1. Lip entire; petals linear-filiform; pollinia 4. ***Allenii*-complex**

Epidendrum allenii*-complex*Key to species**

1. Ovary inflated forming a prominent vesicle; sepals 9 mm long, apical margin; lip 3.9 x 4.5 mm, with 3 fleshy, evident ribs. ***E. macrophysum*** (unconfirmed)
1. Ovary slightly inflated, forming a small vesicle; sepals 13 mm long, margin spreading; lip 10 x 12 mm, with 3 thin, low ribs. 46.4. ***E. timbiquiense***

Epidendrum anceps*-group*Key to species**

1. Inflorescence nodding paniculate, with large glumaceous bracts at the base of each raceme, flowering only once. 46.9. ***E. ruizianum***
1. Inflorescence subcorymbose, on an elongate peduncle, producing new racemes over several years. 46.8. ***E. musciferum***

Andean-group**Key to the subgroups**

1. Leaves apically bilobed. ***Cernuum*-subgroup**
1. Leaves apically acute to acuminate. ***Scabrum*-subgroup**

Epidendrum cernuum*-subgroup*Key to complexes**

1. Inflorescence erect, ovaries elongate, flowers generally non-resupinate, lip 3-lobed. 46.13. ***E. elatum*** (*Vernixium*-complex)
1. Inflorescence arching-nutant, ovaries short, flowers generally resupinate, lip generally 3-lobed or entire. 2
2. Lip generally 3-lobed. ***Cernuum*-complex**
2. Lip generally entire and reniform. 46.12. ***E. pazii*** (*Renilabium*-complex)

Epidendrum cernuum*-complex*Key to species**

1. Lateral lobes of the lip much smaller than the middle lobe, 1 x 2 mm; petals 2.2 mm wide, with an entire margin; flower greenish yellow to yellowish brown. 46.10. ***E. cernuum***
1. Lateral lobes of the lip nearly as large as the middle lobe, 3.6 x 4.1 mm; petals 3.8 mm wide, margin erose; flowers dark greenish purple, the disc of the lip green. 46.11. ***E. gaertelmaniae***

Epidendrum scabrum*-subgroup*Key to complexes**

1. Flowers simultaneous 2
1. Flowers successive, one at a time.
..... **Batesii-complex**
2. Leaf sheaths adpressed or tubular (on the branches some may look slightly inflated, especially when dry. 3
2. Leaf sheaths infundibuliform on the main stems as well as the branches.
..... 46.19. *E. leonorae* (*Soratae*-complex)
3. Leaves linear to linear-lanceolate, narrow, acute, inflorescence racemose, generally dense.
..... 46.17. *E. angustissimum* (*Cuniculatum*-complex)
3. Leaves narrowly elliptic to lanceolate, acute to short-acuminate, inflorescence racemose to paniculate, lax flowered.
..... 46.18. *E. pleiobracteatum* (*Fritzianum*-complex)

Epidendrum batesii*-complex*Key to species**

1. Flowers yellow, the lip white; lip entire, suborbicular with the margin crenate, ovary not inflated. 46.16. *E. silverstonei*
1. Flowers green, the lip occasionally white; lip 3-lobed with the margin of the lateral lobes denticulate to lacerate-dentate; ovary ventrally inflated. 2
2. Flowers green; sepals 7-8.5 mm long; ovary clearly inflated along the apical half, 9-16 mm long.
..... 46.15. *E. farallonense*
2. Flowers green with the lip white; sepals 15-17 mm long; ovary slightly inflated throughout, 30-40 mm long. 46.14. *E. batesii*

Epidendrum cristatum*-group*Key to species**

1. Margins of lip lacerate-fimbriate.
..... 46.21. *E. cristatum* (*Cristatum*-subgroup)
1. Margins of lip entire.
..... 46.22. *E. oraion* (*Cnemidophorum*-subgroup)

Epidendrum cylindraceum*-group*Key to species**

1. Leaves 12-27 cm long; peduncle short, rachis much longer; sepals dorsally glabrous; petals with entire margin; ovary 5-7 mm long; lateral lobes of the lip with entire margin. 46.23. *E. cylindrostachys*
1. Leaves 7-12 cm long; peduncle and rachis of the inflorescence about equally long; sepals dorsally densely speculate; petals with margin apically crenulate; ovary 23-27 mm long; lateral lobes of the lip with posterior margin crenulate.
..... 46.24. *E. diphyllum*

Epidendrum difforme*-group*Key to species**

1. Stems terete to somewhat laterally compressed, though not ancipitose. 2
1. Stems strongly laterally compressed, ancipitose. 6
2. Stems terete, lip reniform to 3-lobed. 3
2. Stems somewhat laterally compressed, lip suborbicular to suborbicular-cordiform. 4
3. Plants 6-18 cm tall, leaves ascending, lip entire, reniform, slightly notched. 46.32. *E. scharfii*
3. Plant 15-20 cm tall, leaves spreading, lip 3-lobed, lateral lobes semi-orbicular, middle lobe notched.
..... 46.30. *E. littorale*
4. Ovary trigonous, with a vesicle behind the perianth, sepals 26-28.3 mm long, elliptic.
..... 46.28. *E. kerryae*
4. Ovary terete, not inflated, or if inflated then not forming a vesicle, sepals 10-19 mm long, acuminate. 5
5. Lip mucronate at the apex, petals linear, sepals 10-16 mm long. 46.26. *E. dentiferum*
5. Lip abruptly acuminate at the apex, petals narrowly lanceolate, sepals (16)18-19 mm long.
..... 46.33. *E. stellidiforme*
6. Plants small, ca 12 cm tall including the inflorescence, disc of the lip thickened, fleshy, with two lateral ridges which limit it, lustrous, deep green. 46.31. *E. parra-sanchezii*
6. Plants large, generally 18-29 cm tall, rarely smaller, disc of the lip flat, concolor. 7
7. Ovary inflated behind the perianth, lip obtuse or transversely elliptic to reniform, gynostemium 10-12 mm long, clinandrium short. 8
7. Ovary not inflated, lip suborbicular-cordiform, gynostemium 6-7 mm long, clinandrium prominent, conical. 46.29. *E. killipii*
8. Lip entire, obtuse, ecallose.
..... 46.25. *E. andrei*
8. Lip obscurely 3-lobed at the apex, transversely elliptic to reniform, bicallose, the calli elongate and divergent. 46.27. *E. holtonii*

Diothonea*-group*Key to subgroups**

1. Flowers small, deep pink to purple; lip entire, more or less cordiform, forming a prominent sac at the base; united to basal half of the column.
..... ***Gastropodium*-subgroup**
1. Flowers small to large, variously colored; lip entire to 3-lobed (rarely 4-lobed), without forming a sac at the base; free to totally and obliquely united to the column. ***Diothonea*-subgroup**

Epidendrum gastropodium*-subgroup*Key to species**

1. Lip with 3, low, separate, parallel ribs; petals obliquely oblong to linear-oblong. 46.34. *E. eugenii*
1. Lip with a transverse cushion, its apex tridentate; petals narrowly elliptic. .. 46.35. *E. gastropodium*

Diothonea*-subgroup*Key to species**

1. Petals linear to linear-lanceolate, 1-2 mm wide. 2
1. Petals ovate or narrowly elliptic, 3-5 mm wide. 4
2. Lip partly or totally free from the column, base cuneate, with 5 central, parallel keels and multiple thickened veins bifurcate at the apex. 3
2. Lip totally united to the column, base cordate, with only 2 short keels adnate to each other and a wide, central rib, elongate to the apex of the lip. 46.40. *E. tropinectarium*
3. Column totally free from the column, slightly arched; flowers greenish brown tinged reddish, lip intense red. 46.36. *E. cleistocoleum*
3. Column partially united to the lip, strongly arched (producing a prominent hump); flowers greenish yellow tinged pink, the lip tinged pink-purple. 46.37. *E. cottoniiflorum*
4. Inflorescences 5-7 cm long; leaves (of the main stem) 5.5-14 x 0.5-1 cm; column with a pair of prominent, involute wings. 46.38. *E. gratissimum*
4. Inflorescence up to 2 cm long; leaves (of the main stem) 1.1-5.6 x 0.3-0.7 cm; column with a pair of rounded wings, no involute. 5
5. Flowers red, with the lip and column yellowish; petals narrowly elliptic; ovary not forming any vesicle; sepals dorsally postulate. 46.41. *E. yumboense*
5. Flowers pale pink, with the lip yellowish orange; petals ovate; ovary inflated, forming a vesicle; sepals dorsally glabrous. . 46.39. *E. restrepoanum*

Epidendrum goodspeedianum*-group*Key to species**

1. Floral bracts prominent, much longer than the ovary; margin of the lip slightly erose, sepals with translucent trichomes on the dorsal surface. 46.49. *E. muricatoides*
1. Floral bracts small, never longer than the ovary; margin of the lip fimbriate or dentate; sepals muricate on the dorsal surface. 2
2. Lip entire or subentire, concave, with the margin fimbriate, white with the disc marked with dark

- purple; apical margin of the petals ciliate. 46.48. *E. goodspeedianum*
2. Lip slightly 3-lobed, convex, margin erose, immaculate white; petals with entire margin. 46.47. *E. calothyrsus*

Lanium*-group*Key to species**

1. Stems thickened into fusiform pseudobulbs; leaves 1-2, aggregate towards the apex of the stem, linear, to 11.5 cm long; inflorescence always shorter than the apical leaf. 46.56. *E. stangeanum*
1. Stems cane-like; leaves 6-8, distributed throughout the stem, ovate-oblong, up to 3 cm long; inflorescence always much longer than the leaves. 46.55. *E. microphyllum*

Epidendrum leuchochilum*-group*Key to species**

1. Middle lobe of the lip linear-lanceolate to elliptic-lanceolate. 46.58. *E. leucochilum*
1. Middle lobe of the lip triangular. 46.57. *E. lacustre*

Epidendrum macrostachyum*-group*Key to species**

1. Inflorescence distichous. 2
1. Inflorescence non-distichous, cylindrical (*Macrostachyum*-subgroup). 4
2. Inflorescence erect (*Aquaticum*-subgroup). 3
2. Inflorescence nutant (*Elleanthoides*-subgroup). 46.60. *E. hesperium*
3. Inflorescence simple. 46.65. *E. rugulosum*
3. Inflorescence paniculate. 46.62. *E. lindae*
4. Inflorescence short (ca. 3 cm long), few-flowered (3-4 flowers), leaves narrow, oblong-elliptic, the apex rounded. 46.63. *E. platystachyum*
4. Inflorescence long (7-16 cm long), many-flowered (12-40 flowers); leaves narrowly elliptic to elliptic, the apex acute or acuminate. 5
5. Flowers successive, olive-brown, like mature olives; mature inflorescence 31-36 cm long (Cordillera Central). *E. macrostachyum* (unconfirmed)
5. Flowers simultaneous, yellowish green or yellow; inflorescence 8-15 cm long; (Cordillera Occidental). 6
6. Inflorescence dense, with ca 40 flowers; lip widely deltate, wider than long, base widely cordate. 46.64. *E. polyanthostachyum*
6. Inflorescence lax, with 5-24 flowers; lip deltate, proportionately as wide as it is long, base truncate. 7

7. Apex of the leaves acuminate; petals linear, acute, 1.0-1.3 mm wide; column with a pair denticulate wings, arching upwards. 46.59. *E. grammipetalostachyum*
7. Apex of the leaves acute; petals elliptic, obtuse, 6 mm wide; column with a pair of non-denticulate wings. 46.61. *E. humeadorensis*

***Epidendrum megalospathum*-group**

Key to species

1. Flowers non-resupinate, stems erect, plant creeping. 46.70. *E. geminiflorum*
1. Flowers resupinate, plants pendent. 2
2. Inflorescence 2-6 flowered. 46.71. *E. rhodochilum*
2. Inflorescence 1-2-flowered. 3
3. Lip suborbicular-elliptic, obtuse. 46.68. *E. commelinoides*
3. Lip ovate in outline, base cordate, apex long narrowly acuminate. 46.69. *E. escobarianum*

***Epidendrum nocturnum*-group**

Key to species

1. Ovary more or less as long as the floral segments. 2
1. Ovary longer than the floral segments. 5
2. Leaves 2.5-3.5 cm wide, lateral lobes of the lip reduced, ovary inflated and forming a vesicle along the apical ventral half. 46.82. *E. rocalderianum*
2. Leaves generally 0.6-2.7 mm wide, lateral lobes of the lip elongate, ovary not inflated and not forming a vesicle. 3
3. Stems thin, 10-15 mm wide, ancapitose, leaves narrow, 0.6-0.9 cm wide, lateral lobes of the lip without thickened veins. 46.77. *E. litense*
3. Stems wider, 20-45 mm wide, laterally compressed without being ancapitose, leaves wide, 0.8-2.7 cm wide, lateral lobes of the lip with thickened veins. 4
4. Plants small, 12-15 cm tall, underside of leaves green, ovary 27-30 mm long, lateral lobes of lip nearly as long as the middle lobe. 46.79. *E. mininocturnum*
4. Plants larger, 17-30 cm tall, underside of leaves purple, ovary 35-50 mm long, lateral lobes of lip half as long as the middle lobe. 46.74. *E. buenaventurata*
5. Stems terete, body of capsule at the center of the ovary. 6
5. Stems laterally compressed to ancapitose, body of capsule at the basal or apical half of the ovary. 7
6. Stems with 4-12 leaves distributed along the apical half, pedicel and apical neck of the different in

- length, the pedicel longer (6 cm). 46.80. *E. nocturnum*
6. Stems with 6-8 leaves distributed throughout, pedicel and apical neck of the capsule equal in length (1.5 cm long). 46.81. *E. pseudonocturnum*
7. Sepals and petals 26-35 mm long, column 13-14 mm long. 8
7. Sepals and petals 60-80 mm long, column 19-34 mm long. 9
8. Leaves length/width: 2:1, 4.9-6.5 x 2.4-3.4 cm, middle lobe of lip straight in natural position. 46.73. *E. anchinocturnum*
8. Leaves length/width: >3:1, 10-11.5 x 2.0-2.3 cm, middle lobe of lip recurved in natural position. 46.75. *E. campyloglossum*
9. Stems ca. 50 cm tall, ovary 60-90 mm long, column 19-26 mm long. 46.76. *E. cocornocturnum*
9. Stems 30-120 cm tall, ovary 220-280 mm long, column 30-34 cm long. 46.78. *E. macrophorum*

***Oerstedella*-group**

Key to species

1. Inflorescence short, 0.5-2 cm long; sepals (15)18-23 mm long, yellow with purple-red dots, lip white striped with purple-red; lateral lobes of the lip prominent, 6-10 x 5-7 mm, wider than the middle lobe. 46.84. *E. wallisii*
1. Inflorescence 7-25 cm long; sepals 13-15 mm long, dorsally violet, pale orange inside, marked with reddish brown, lip and apex of the column violet; lateral lobes of the lip small, 5 x 4 mm, as wide as the middle lobe. 46.83. *E. pseudoschumannianum*

***Epidendrum pleuranthium*-group**

Key to species

1. Inflorescence producing one flower at a time; floral segments spreading; clinandrium-hood elongate, twice as long as the body of the column; lip 3-lobed. ... ***Phragmites*-subgroup: *E. phragmitoides***
1. Inflorescence producing several flowers at one time, floral segments spreading; clinandrium-hood short; lip entire. ***Dendrobii*-subgroup (2)**
2. Ovary short, 7-13 mm long; sepals oblong-elliptic, the apex rounded, 10 mm long; lip reniform, apex emarginate. 46.88. *E. dendrobii*
2. Ovary long, 25-45 mm long; sepals oblong to triangular-lanceolate, the apex obtuse, 13-15 mm long; lip cordiform, the apex obtuse. 46.89. *E. dendromacrophorum*

Epidendrum pseudepidendrum*-group*Key to subgroups**

1. Inflorescence clearly paniculate or rarely racemose, (never producing successive racemes from the same peduncle). 2
1. Inflorescence racemose, producing successive racemes from the same peduncle. ***Turialvae*-subgroup**
2. Flowers pink, the disc of the lip occasionally white or intense pink; calli large, horn-like. ***Porphyreum*-subgroup**
2. Flowers green, the lip white, the disc of the lip occasionally marked with reddish purple; calli small, nearly always subglobose. ***Paniculatum*-subgroup**

Epidendrum paniculatum*-subgroup*Key to species**

1. Flowers small, sepals 6-7 mm long. 2
1. Flowers larger, sepals 11-19 mm long. 3
2. Lateral lobes of the lip with cirrhose apex; inflorescence paniculate, many-flowered; callus single, its apex bilobed. ... 46.92. ***E. cirrhochilum***
2. Lateral lobes of lip with apex rounded; inflorescence racemose, few-flowered; callus bicallose, calli horn-like. 46.93. ***E. guaridense***
3. Middle lobe of lip divided into a pair of linear-spathulate lobes, the apex obliquely truncate and erose. 46.91. ***E. bispathulatum***
3. Middle lobe of the lip divided into a pair of linear lobes with the apex acute or rounded and the margin entire. 4
4. Leaves orbicular; lip immaculate, sepals clear green colored. 6.95. ***E. paniculorotundifolium***
4. Leaves elliptic to elliptic-lanceolate; lip marked with reddish purple or pink-purple on the disc; sepals green tinged with brown. 5
5. Lateral lobes of the lip dolabriform; sepals green brown), 13-15 mm long; apical half of the column and lip white. 6
5. Lateral lobes of lip transversely oblong-subrectangular; sepals greenish brown (dorsally tinged pink, 17-19 mm long; apical half of the column and lip pink. ***E. lopezii*** (unconfirmed)
6. Disc of the lip with 5 ribs, strongly marked with reddish purple lines on the ribs. 46.96. ***E. weerakititanum***
6. Disc of the lip with 3 ribs, slightly tinged with purple on the ribs. 46.94. ***E. kolanowskiae***

Epidendrum porphyreum*-subgroup*Key to species**

1. Flowers pink, the disc of the lip white or creamy; racemes of the inflorescence spreading on the rachis, lateral lobes of the lip never bilobed. 2
1. Flowers orange, the disc of the lip yellow; racemes of the inflorescence subparallel to the rachis; lateral lobes of the lip slightly bilobed. 46.101. ***E. spathatum***
2. Flowers pink, the disc of the lip white or creamy; middle lobe of the lip bifurcate, forming oblong lobes, slightly divaricate, forming a "V". 3
2. Flowers pink, the ventral surface of the sepals yellowish; middle lobe of the lip bifurcate, the lobes linear, strongly divaricate, opposite. 4
3. Inflorescence densely many-flowered, with up to 180 flowers; leaves green. Concolor; sepals 9-10 mm long; lateral lobes of lip dolabriform, margin spreading (not involute); lip equally wide between the lateral lobes and the apical lobes. 46.99. ***E. laeve***
3. Inflorescence laxly flowered, 40-70 flowers; leaves bicolor, green above, ventrally purple; sepals 11-16 mm long; lateral lobes of lip trapexoid, slightly falcate, basal margin somewhat involute; lip wider between the lateral lobes than between the apical lobes. 46.98. ***E. hypoporphyreum***
4. Leaves concolor, green; lateral lobes of lip falcate, oblong, strongly retrorse and semi-parallel to the apical half of the column; middle lobe of lip with a short isthmus at the base, the apex deeply emarginate, forming a pair of strongly divaricate, linear lobes. 46.100. ***E. peraltum***
4. Leaves bicolor, the upper side green, the underside deep purple; lateral lobes of the lip dolabriform; middle lobe without an isthmus at the base; apex forming a pair of hastate, linear lobes. 46.97. ***E. giraldo-cannasii***

Epidendrum turialvae*-subgroup*Key to species**

1. Sepals 29 mm long; lip slightly convex with the margin crenulate; leaves green, concolor. 46.103. ***E. xanthoanthinum***
1. Sepals 7-11 mm long; lip strongly convex and reflexed, margin strongly lacerate; leaves green on the upper side, purple on the underside. 46.102. ***E. ionophyllum***

Epidendrum psilanthemum*-group*Key to species**

1. Plants 13-24 cm tall, pseudobulbs 3.5-12 x 0.4-1.6 cm, fusiform, flowers pink. 46.104. *E. leeanum*
1. Plants up to 50 cm tall, pseudobulbs 8-27 x 0.5-2 cm, fusiform, flowers yellow. 46.105. *E. stamfordianum*

Epidendrum ramosum*-group*Key to subgroups**

1. Leaves >4 mm wide, not acuminate. 2
1. Leaves <3 mm wide, acuminate. 46.106. *E. isomerum* (*Isomerum*-subgroup)
2. Leaves <2.5 cm long, very similar, floral segments <8 mm long. ***Repens*-subgroup** (3)
2. Leaves > 4 cm long, unequal; floral segments 9-15 mm long. 4
3. Plants 5-13 cm long, ovary forming a vesicle behind the perianth; lip with single callus, laminar, with a pair of cavities beneath; lip somewhat thickened, appearing as having 3 ribs on the disc. 46.109. *E. cornanthera*
3. Plants 20-60 cm long; ovary thickened without forming a vesicle; lip with a single, 3-dentate callus, the mid-tooth somewhat longer. *E. luckei* (unconfirmed)
4. Leaves undulate, reflexed, lip 3-lobed. 46.110. *E. sculptum* (*Sculptum*-subgroup)
4. Leaves smooth, spreading, lip entire. 5
5. Plants pendent, leaves of the main stem 10-17 cm long, inflorescence with 4-9 flowers, creamy white, the base of the column green. 46.107. *E. mora-retanae* (*Paranaense*-subgroup)
5. Plants erect, leaves of the main stem 3-10.5 cm long, inflorescence generally with 3-6 flowers, green to yellowish green. 46.108. *E. ramosum* (*Ramosum*-subgroup)

Epidendrum secundum*-group*Key to species**

1. Callus of lip bicallose, calli globose, with a prominent mid keel running down the disc. ***Calanthum*-subgroup** (2)
1. Callus of lip complicated, formed by 3-7 tubercles, massive, without any keel running, or if down the disc present very short. ***Elongatum*-subgroup** (5)
2. Flowers non-resupinate, purple, epiphytic, myrmecophilous. 46.112. *E. flexuosum*
2. Flowers resupinate, red to orange, terrestrial or lithophytic, and non-myrmecophilous except in *E. macrocarpum* which is both epiphytic and myrmecophilous. 3

3. Plants scandent, creeping, producing roots along the whole stem among the leaves, column arching. 46.114. *E. radicans*
3. Plants caespitose, producing roots only at the base of the stems, below the leaves, column straight. ... 4
4. Flowers vermilion with yellow column, calli and central keel; epiphytic or lithophytic. 46.111. *E. baumannianum*
4. Flowers red, the apex (only) of the column yellow; always epiphytic and myrmecophilous. 46.113. *E. macrocarpum*
5. Middle lobe of lip entire, margin entire, flowers red, callus and anther yellow. 46.118. *E. igneum*
5. Middle lobe of lip more or less bifid, apical margin fimbriate, flowers yellow, red to pink-purple or in between. 6
6. Leaves oblong, narrow, length/width = 5-8:1. ... 7
6. Leaves, ovate to lanceolate-elliptic, length/width = 2-3:1. 8
7. Margin of lip short-fimbriate, spreading, flowers pink-purple, small, white to yellow to red, plants generally epiphytic and myrmecophilous, small. .. 46.120. *E. ptochicum*
7. Margin of lip deeply fimbriate, in natural position fimbria are geniculate in all directions, appearing in total disorder, flowers golden yellow, plants terrestrial, never myrmecophilous, large. 46.116. *E. aura-usecheae*
8. Flowers variously colored but not a clean yellow, red or pink-purple, a hybrid population. *E. melinanthum x arachnoglossum*
8. Flowers with a clean color, either yellow, red or pink-purple. 9
9. Flower yellow callus a very fleshy, shallowly 3-lobed structure the mid rib terminating in the globos knob. 46.119. *E. melinanthum*
9. Flowers wine-red or pink-purple, callus complicated 5-7 tuberculate. 10
10. Flowers pink-purple, the callus white with the base yellow. 46.115. *E. arachnoglossum*
10. Flowers wine-red, callus white. 46.117. *E. catillus*

Spathiger-group

Key to species

1. Lip up to 6 mm long, entire, broadly ovate to sub orbicular, strongly cordate at the base, obtuse (rarely subtruncate or acute) at the apex. 46.122. *E. rigidum*
1. Lip 7-15 mm long, entire, cordate-reniform to obreniform. 2
2. Inflorescence much longer than the leaves, floral bracts acuminate. 46.124. *E. villotae*
2. Inflorescence subequal to the leaves, floral bracts rounded. 46.123. *E. summerhayesii*

***Epidendrum tipuloideum*-group**

Key to species

1. Leaf flat, thin, dorsal sepal obovate or oblong, acute, petals spatulate, acuminate, lip entire, subquadrate in outline. 46.127. *E. recurvatum*
1. Leaf subterete, fleshy, dorsal sepal narrowly lanceolate, long-acuminate, petals narrowly linear, lip deeply 3-lobed, lateral lobes rounded-dolabriform; middle lobe narrowly triangular, long-acuminate. 46.126. *E. porquerense*