

EPIDENDRUM L.

GRUPO MACROSTACHYUM

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KEY TO THE SPECIES OF THE MACROSTACHYUM GROUP

1. Floral bracts prominent (never shorter than the ovary to much longer than the flower) 11-40 mm long [the apical ones may diminish to 5-7 mm long] 11
- 1¹. Floral bracts small (shorter than the ovary to rarely somewhat longer) 2.5-9[12] mm long 2
- 2(1²). Inflorescence densely flowered (35-70 flowers)..... 3
- 2². Inflorescence laxly flowered (8-30 flowers) 4
- 3(2). Flowers small, sepals 5-8 mm long, dorsally muricate *E. palaciosii*
- 3². Flowers larger, sepals 11-15 mm long, dorsally unornamented *E. polyanthostachyum*
- 4(2¹). Flowers green, yellow or orange, inflorescence lax-flowered 5
- 4². Flowers lilaceous white, rarely deep lilac, inflorescence dense *E. borealistachyum*
- 5(4). Leaves elliptic or narrowly elliptic, 8-18 × [2.2]3-5 cm on the main stem; lip clearly cordiform; sepals 14-18 mm long *E. cardiostachyum*
- 5². Leaves lanceolate to linear lanceolate, 6-15 × 0.6-1.7 [2.3] cm on the main stem; lip deltoid, sub-deltoid to widely rhombic; sepals 6.5-13 mm long 6
- 6(5¹). Inflorescence 20 cm long; sepals 12-13 mm long; lip sub-deltoid with the base cordate..... *E. odontostachyum*
- 6². Inflorescence 5-13 [15] cm long; sepals 6-12 mm long; lip deltoid or widely rhombic, base truncate, slightly sub-cordate or cuneate 7
- 7(6¹). Lip densely pubescent throughout its ventral surface *E. lasiostachyum*
- 7². Lip sparsely pubescent on the disc of the lip 8
- 8(7¹). Sepals 6-7.5 mm long 9
- 8². Sepals 9-12 mm long 10
- 9(8). Inflorescence 5 cm long; flowers 8-12; petals 5 × 1 mm, linear, the apex obtuse; column 3 mm long *E. microcarpum*
- 9². Inflorescence 7-8 cm long; flowers 15-17; petals 6.7 × 1.5 mm, oblong, falcate, the apex acute; column 7 mm long *E. sumacostachyum*
- 10(8²). Sepals 9.0-9.5 mm long, dorsally papillose; petals 8 × 1.5 mm; linear-oblongate; ovary 5-7 mm long *E. notostachyum*
- 10². Sepals 9-12 mm long, dorsally glabrous; petals 10 × 1.3 mm, linear, ovary 7-10 mm long *E. grammipetalostachyum*

- 11(1). Petals obtrullate, spatulate or rhombic 12
- 11². Petals linear, oblong, elliptic or widely spatulate 13
- 12(11). Leaves of the main stem 8.5-9.0 × 1.5-1.7 cm; lip 7 × 9 mm, trullate with the apex rounded, ecallose *E. trullichitum*
- 12². Leaves of the main stem 9-17 × 2.8-4.5 cm; lip 9 × 12 mm, widely triangular cordiform with the apex sub-acute, bicallose *E. orthophyllum*
- 13(11¹). Inflorescence short (1.5-3.0 cm long), with 3-4 flowers densely aggregate in a very short rachis; leaves linear-lanceolate *E. platystachyum*
- 13². Inflorescence long (7-34 cm long), with 5-21 flowers distributed along the rachis; leaves lanceolate, elliptic to oblong-elliptic 14
- 14(13¹). Floral bracts proportionately nearly as wide as they are long, the apex acute or short-acuminate 15
- 14². Floral bracts proportionately longer than wide, the apex acute or long-acuminate 23
- 15(14). Leaves narrowly elliptic-lanceolate, elliptic or oblong-lanceolate, 1.4-5 cm wide; lip 10-17 × 11-18 mm 16
- 15². Leaves lanceolate, 1.5-2.5 cm wide; lip 6-15 × 9-10 mm 21
- 16(15). Mature inflorescence much longer than the apical leaf, many-flowered, with 18-20 flowers 17
- 16². Mature inflorescence as long or slightly shorter than the apical leaf, few-flowered, with 5-8 flowers 20
- 17(16). Petals oblanceolate, widely spatulate or obovate-elliptic, flowers colorful, never green; anther with the apex obtuse; ovary 9-19 mm long 18
- 17². Petals oblong, flowers green, the lip greenish yellow; anther apically short acuminate; ovary very short 6 mm long *E. brachyoothistachyum*
- 18(17). Flowers white tinged with purple; petals 15 × 5 mm, oblanceolate *E. obovatipetalum*
- 18². Flowers reddish orange to lilac; petals 13.2-14.0 × 6-8 mm, widely spatulate to obovate-elliptic 19
- 19(18). Flowers 15-20, lilac; petals obliquely obovate-elliptic with the apex sub-obtuse; lip ecallose *E. erikae*
- 19². Flowers ca. 45, reddish-orange; petals widely spatulate and the apex rounded; lip bicallose *E. ariasii*

20(16').	Inflorescence 6.5 cm long; sepals 15 × 9 mm; petals nearly as wide as the sepals; flowers greenish white	.....
			<i>E. xylostachyum</i>
20'. 20(17').	Inflorescence 8-13 cm long; sepals 21 × 12.5 mm; petals half as wide as the sepals; flowers yellowish green	.....
			<i>E. humadorensis</i>
21(15').	Lateral sepals partly spreading, slightly concave; petals linear-oblong to lanceolate, spreading	.....	22
21'. 22(21).	Lateral sepals reflexed, convex; petals oblanceolate, reflexed	.....
			<i>E. recurvitepalostachyum</i>
22(21).	Rachis of the inflorescence straight; floral bracts 5–7 mm wide, the apex acute; lateral sepals very fleshy; petals linear-oblong to lanceolate	.....
			<i>E. sarcostachyum</i>
22'. 23(14').	Rachis of the inflorescence sinuous; floral bracts 8–12 mm wide, the apex acuminate and uncinately; lateral sepals slightly fleshy; petals lanceolate	.....
			<i>E. chondrochilum</i>
23(14').	Floral bracts much longer than the total length of the flower	.....	24
23'. 24(23).	Floral bracts never much longer than the flower	.....
			25
24(23).	Leaf blade of the main stem 18–20 × 2-5 cm, elliptic-lanceolate; inflorescence pyramidal, the rachis straight; flowers successive 21–30; ovary 6–7 mm long; lip widely cordiform (proportionately wider than long); sepals ovate-elliptic, obtuse	.....
			<i>E. magnibracteum</i>
24'. 25(23').	Leaf blade of the main stem 15-18 × 2-2.8 cm, narrowly lanceolate; inflorescence distichous with the rachis fractiflex; flowers mostly simultaneous, 11-12; ovary 9-12 mm long; lip cordiform (as wide as it is long); sepals triangular-ovate, acute	.....
			<i>E. bractiacuminatum</i>
25(23').	Inflorescence of the main stem 2.5–9.0 [13-17] cm long	.....	26
25'. 26(25).	Inflorescence of the main stem 15–40 cm long	.....
			33
26(25).	Leaves 4.0–10.4 × 1.8–3.3 cm, elliptic to oblong-elliptic	.....	27
26'. 27(26).	Leaves 1.5-11.0 × 0.4–2.3 cm, lanceolate	.....
			31
27(26).	Anther with the apex acute or truncate, never surpassing the apex of the column; sepals 13.5–17 × 4-7 mm	.....	28
27'. 28(27).	Anther with the apex rostrate, surpassing the apex of the column; sepals 9–12 × 3–5 mm	.....
			29
28(27).	Flowers peach colored; petals linear-oblong; sepals dorsally glabrous; column sigmoid	.....	<i>E. sigmostachyum</i>
28'. 29(27').	Flowers green tinged brown, turning orange-brown when mature; petals oblong-elliptic; sepals dorsally echinate; column straight	.....
			<i>E. deltastachyum</i>
29(27').	Lateral sepals with a high, laminar, dorsal keel, the apex erose; petals oblong, apex rounded; anther with a short, incipient apical rostrum shorter than the anther itself; flowers red	.....
			<i>E. macphersonii</i>
29'. 30(29').	Lateral sepals with a low, incipient dorsal keel, the margin entire; petals linear, apex acute; anther with an apical rostrum much longer than the body of the anther; flowers green	.....
			30
30(29').	Inflorescence 13 cm long; sepals 9–11 mm long, apex acute; lip 6.5-8.0 × 7–10 mm, semi-circular with the base sub-truncate, without ribs; column 5-6 mm long	.....
			<i>E. rostrigerum</i>
30'. 31(26').	Inflorescence 5–8 cm long; sepals 10–13 mm long, apex acute; lip 9–10 × 9–11 mm, deltoid with the base truncate, with a low rib down the middle; column 7–8 mm long	.....
			<i>E. probosanthum</i>
31(26').	Flowers small, sepals 7.5–7.8 mm long; inflorescence secund flowered; lip rhombic, the base cuneate	.....
			<i>E. microrigidiflorum</i>
31'. 32(31').	Flowers large, sepals 12–15 mm long; inflorescence distichous; lip deltate to deltate-cordiform	.....
			32
32(31').	Sepals 14–15 mm long, slightly recurved, the apex minutely apiculate; floral bracts narrowly oblong or triangular-lanceolate	.....
			<i>E. stenobractistachyum</i>
32'. 33(25').	Sepals 12.0–13.7 mm long, partly spreading to spreading, the apex uncinately; floral bracts ovate-lanceolate	.....
			<i>E. coordinatum</i>
33(25').	Sepals 15–23 mm long	.....	34
33'. 34(33).	Sepals 10–12 mm long	.....
			38
34(33).	Rachis of the inflorescence slightly flexuous; flowers 6–15; lip 14.5 × 14.4 mm	.....	<i>E. bangii</i>
34'. 35(34').	Rachis of the inflorescence straight; flowers 15–27; lip 9–12 × 8–12 mm	.....
			35
35(34').	Sepals and petals long acuminate; sepals 15–23 mm long	.....	<i>E. oxycalyx</i>
35'. 36(35').	Sepals and petals acute; sepals 14–18 mm long	.....
			36
36(35').	Inflorescence (of the main stem) 24–40 cm long; flowers wine-red	.....	37
36'. 37(36).	Inflorescence (of the main stem) 11–14 cm long; flowers reddish brown	.....
			<i>E. dermatanthum</i>
37(36).	Inflorescence lax flowered, 25-40 cm long; leaves green with the margin reddish; column wide and straight	.....
			<i>E. munchiquense</i>
37'. 38(33').	Inflorescence densely flowered, 24 cm long; leaves wine-red; column thin and slightly arched	.....
			<i>E. porphyrostachyum</i>
38(33').	Leaves narrowly lanceolate, apex acute to short acuminate, leaves of the main stem 1.6–2.5 cm wide; inflorescence 15–23 cm long, flowers yellow to greenish yellow or wine-red	.....	39
38'. 39(38).	Leaves lanceolate elliptic, apex acute; leaves of the main stem 3.0–3.5 cm wide; inflorescence to 31 cm long, flowers the color of ripe black olives	.....
			40
39(38).	Flowers wine-red; leaves 5.3–8.0 cm long, lanceolate, apex acute; petals oblong-triangular, never falcate	.....
			<i>E. puracestachyum</i>
39'. 40(38').	Flowers yellow to greenish yellow; leaves 7.5–18.0 cm long, lanceolate, apex acuminate; petals linear and falcate	.....
			<i>E. rigidiflorum</i>
40(38').	Petals linear-oblong, apex sub-obtuse; lip widely cordiform, base slightly cordate, column thin	.....
			<i>E. macrostachyum</i>
40'. 40(39').	Petals linear-triangular, apex sub-acute; lip triangular, base truncate; column thick	.....
			<i>E. brachystelestachyum</i>