

27. Adaxial ribs not prominently raised from surface; leaves with a waxy texture 31
28. Lamina width at widest point less than $\frac{1}{2}$ length of the midvein *Asterogyne martiana*
28. Lamina width at widest point greater than $\frac{1}{2}$ length of the midvein 29
29. Lamina length less than 2 times length of the midvein *Geonoma congesta*
29. Lamina length greater than twice the length of the midvein 30
30. Leaves not papery in texture, pink-red when young; petioles with reddish-brown tomentum *Geonoma deversa*
30. Leaves thin and papery in texture, green when young; petioles not tomentose
..... *Geonoma interrupta*
..... *Geonoma oxycarpa*
31. Leaves wedge-shaped at base, red when young; larger leaves as wide below bifid split as above (Fig. 1C) *Geonoma longevaginata*
..... *Geonoma ferruginea*
31. Leaves long-attenuate at base, light green when young; larger leaves narrower below bifid split than above *Geonoma cuneata*

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Key to the Palms of Finca La Selva, Costa Rica

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1. Leaves palmately divided, white below
..... *Cryosophila albida*
1. Leaves pinnately divided or undivided and pinnately ribbed, white or green below
2. Plants with spines on stem, leaf sheath, petiole, inflorescence, or on all parts 3
2. Plant lacking spines (except on stilt roots) 9
3. Stems climbing; uppermost pinnae modified into reflexed hooks ... *Desmoncus costaricensis*
3. Stems upright; uppermost pinnae not modified into hooks 4
4. Leaf blades whitish below; spines markedly flattened; robust subcanopy palms 5
4. Leaf blades green below; spines not markedly flattened; slender, usually clustered understory palms 6
5. Leaf blades irregularly divided into broad, many-ribbed segments borne in one plane; fruits densely covered with short, black prickles; trunk covered by old leaf bases
..... *Astrocaryum alatum*
5. Leaf blades regularly divided into one-ribbed segments, these irregularly grouped and borne in several planes; fruit not prickly, orange at maturity; trunk densely covered with spines *Astrocaryum standleyanum*
6. Leaf blade softly pubescent below, entire or rarely divided basally; petiole and rachis unarmed or armed with stout spines; stems often less than 2 m in height and 1 cm diam.
..... *Bactris wendlandiana*
6. Leaf blade glabrous beneath, pinnately divided; stems more than 2 m tall and 1 cm in diam. 7
7. Pinnae with prominent thin spines along the margins and long caudate-acuminate tips; long spines present on rachis of leaves of mature plants *Bactris longiseta*
7. Pinnae with minute spines along the margins; pinnae lacking long caudate-acuminate tips; rachis lacking spines 8
8. Small palm with glossy green foliage; pinnae grouped basally, more or less regularly arranged above the middle; long spines absent from lamina surface
..... *Bactris* sp. nov. fide Moore
8. Large palm with dull green foliage; pinnae clustered in small groups along rachis and displayed in several planes; long spines occasionally present on underside of pinnae
..... *Bactris porschiana*
9. Stilt roots present, or numerous, elongate, aerial, adventitious roots prominently developed 10
9. Stilt roots not prominently developed, but adventitious roots sometimes evident at base of trunk 14
10. Slender understory palms; pinnae sigmoid, 1- to several-ribbed; leaves with a pale stripe on lower surface of petiole and leaf base; crownshaft lacking 11

¹ This key was originally written by HEM, Jr. for use by students in field courses in Costa Rica. After he died modifications were made by RLC.

10. Subcanopy or canopy palms; pinnae not sigmoid, 1- to several-ribbed; leaves lacking pale stripe on lower surface of petiole; crownshaft prominent 12
11. Stem to 4 m in height, 2.5 cm diam.; prominent, aerial, adventitious roots; leaves often over 1 m long; prominent yellow stripe below petiole *Chamaedorea exorrhiza*
11. Stem under 2 m in height, 1-2 cm diam., often creeping and rooting at the nodes; leaves less than 50 cm long; white or pale green stripe below petiole *Chamaedorea warszewiczii*
12. Pinnae with scalloped or irregular margins; massive stilt roots developed 13
12. Pinnae with entire margins, 1-ribbed, linear; dense cone of adventitious roots present at base *Euterpe macrospadix*
13. Stilt roots forming an open cone, sharp spines on roots; terminal pinna split *Socratea durissima*
13. Stilt roots forming a dense cone, no spines on roots; terminal pinna entire *Iriarteia gigantea*
14. Leaves undivided except at the bifid apex 15
14. Leaves with 2 to many pairs of pinnae 18
15. Inflorescence unbranched; borne within the crown or below 16
15. Inflorescence branched, with several rachillae digitately arranged, borne within the crown 17
16. Outer margin of lamina entire; internodes short, often indistinguishable; inflorescence borne within crown; lamina long-attenuate at base *Geonoma cuneata*
16. Outer margin of lamina toothed along apical half; internodes easily distinguished; inflorescence borne below leaves; lamina not long-attenuate at base *Chamaedorea geomomiformis*
17. Apex of leaf deeply bifid; blade up to 1.3 m long, wedge-shaped, not decurrent at base, the margin entire; new leaves reddish *Asterogyne martiana*
17. Apex of leaf briefly divided, blade less than 50 cm long, elliptic, margin prominently toothed above the middle; new leaves green *Reinhardtia simplex*
18. Solitary, erect, robust palms with trunk to ca. 10 cm diam., or more; leaves ascending, large, regularly pinnately divided; inflorescence with 8-10 thick spikes bearing flowers in pits in vertical rows. Trunks orange with alternating dark bands (leaf scars); new leaves deep red. Subcanopy palms *Welfia georgii*
18. Solitary or caespitose (clumped) palms with stems normally less than 10 cm in diam.; leaves divided or bifid; inflorescence branched or unbranched; trunks brown, tan or green 19
19. Pinnae toothed at the apex or above the middle, usually 2 on each side of the rachis, 2- to several-ribbed; stems less than 1.5 m tall and 1.5 cm diam.; leaves less than 50 cm long 20
19. Pinnae with entire margins, usually 3 or more on each side of the rachis, stems often over 1.5 m tall and 1.5 cm diam.; leaves more than 50 cm long 21
20. Pinnae with slits or "windows" at the base *Reinhardtia gracilis* var. *rostrata*
20. Pinnae without slits at the base *Reinhardtia simplex*
21. Pinnae more than 20 on each side, slender, 1-ribbed, acuminate at tip; inflorescences branched, with many stiff rachillae, usually becoming orange-red in fruit; trunk green *Prestoea decurrens*
21. Pinnae fewer than 20 on each side of the rachis, often several-ribbed; inflorescences branched or unbranched; trunk green, or brown, or tan 22
22. Stems solitary or plants appearing stemless 23
22. Stems clustered 29
23. Inflorescence spicate 24
23. Inflorescence branched 26
24. Peduncle long, erect, with a prominent circular scar at apex just below the spike; leaf blade deeply bifid, irregularly divided; stem very short or creeping; fruits less than 1 cm diam. *Calyptrogyne sarapiquensis*
24. Peduncle lacking a prominent circular scar below the spike, stems short to tall, 7 m in height 25
25. Stems to 5 m in height; pinnae more than 5 per side; blade regularly divided, over 1 m long; fruits over 1 cm diam. *Pholidostachys pulchra*
25. Stems short or not evident; blade irregularly divided with 2-5 pinnae on each side, or leaves bifid; blade less than 1 m long; fruits less than 1 cm diam. *Geonoma cuneata*
26. Leaves with several-ribbed pinnae and 1-ribbed pinnae interspersed; trunk often tan brown, up to 10 cm diam.; flowers borne in pits in rachillae of a much-branched inflorescence 27
26. Leaves with all the pinnae except the apical pair 1-ribbed; trunks slender; flowers sessile on the rachillae of the inflorescence 28
27. Stem 6-8 cm diam.; rachillae with tiny branched hairs; pinnae not sigmoid *Geonoma interrupta*
27. Stem 3-6 cm in diam.; rachillae with numerous simple hairs; pinnae sigmoid *Geonoma oxycarpa*
28. Leaves with a pale stripe on lower surface of petiole and rachis *Chamaedorea warszewiczii*

28. Leaves lacking a pale stripe on the lower surface of the petiole and rachis
..... *Chamaedorea* sp. nov. fide Moore
29. Plants without evident stems or the stems creeping; inflorescence spicate, long-pedunculate, bearing a circular scar just below the spike *Calyptrogyne sarapiquensis*
29. Plants with stems 1-5 m tall; internodes prominent; inflorescence branched, peduncle without a scar at apex 30
30. Flowers borne in lines on the rachillae, not sunken in pits; leaves variously divided; petiole round; fruits yellow to bright orange-red when ripe, more than 2 cm diam.
..... *Synechanthus warszewiczianus* 31
30. Flowers borne in pits in the rachillae; fruits dark purple when ripe, less than 2 cm diam.
..... *Geonoma congesta*
31. Inflorescence once- or twice-branched; rachillae slender, less than 4 mm diam., turning red in fruit; lamina pink-red during expansion; petiole terete or rounded below and flattened above; fruits less than 1 cm diam.; stems pale brown 32
32. Petioles terete, covered with a dense brownish wool; lamina lacking prominent veins on upper surface, sigmoid; leaves deep red during expansion, later turning dark green 33
32. Petioles rounded below and flattened above, not densely pubescent; adaxial veins prominent; leaves pink-red during expansion, later turning light green *Geonoma deversa*
33. Lamina divided into 7 or more pinnae on each side of the rachis, 1- and several-ribbed segments intermixed
..... *Geonoma longevaginata*
33. Lamina divided into 3-5 broad pinnae, often up to 10 cm wide *Geonoma ferruginea*