

Field Guide to the Palms of Rio de Janeiro State, Brazil

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This Guide is designed specifically for the participants in the IPS Rio Biennial, but will allow anyone to identify naturally occurring palms within Rio de Janeiro State and in adjacent areas of São Paulo, Minas Gerais, and Espírito Santo.

Note that cultivated palms (of which there are many in Rio) are not included. I have indicated, for each species, sites in Rio de Janeiro State where they may be found, mostly National Parks or other protected areas. So, enjoy the Biennial, and don't forget to bring this guide!

Key to the Genera

- 1a. Spiny palms 2.
- 1b. Non-spiny palms 5.
- 2a. Climbing or scrambling palms; leaf tips with hooks instead of leaflets . . . *Desmoncus*
- 2b. Non-climbing palms; leaf tips without hooks 3.
- 3a. Stems to 50 cm diameter; leaflets irregularly arranged and spreading in different planes *Acrocomia*
- 3b. Stems to 15 cm diameter; leaflets usually regularly arranged and spreading in the same plane 4.
- 4a. Leaflets silvery-gray on the lower surfaces; fruits spiny. *Astrocaryum*
- 4b. Leaflets green, rarely silvery-gray on the lower surfaces; fruits not spiny *Bactris*
- 5a. Leaf sheaths forming a distinct crownshaft; inflorescences borne below the crown-shaft *Euterpe*
- 5b. Leaf sheaths not forming a crownshaft; inflorescences borne amongst the leaves . . 6.
- 6a. Stems slender, brown, ringed, 1–4.5 cm tall and 1–4 cm diameter; fruits small, black, to 1.5 cm long *Geonoma*
- 6b. Stems short and subterranean or stout, not ringed, 5–25 m tall, 10–35 cm diameter; fruits larger, brown or greenish, to 9 cm long . . . 7.
- 7a. Inflorescences unbranched, with the fruits densely crowded *Allagoptera*
- 7b. Inflorescences branched, the fruits usually not densely crowded 8.
- 8a. Leaflets silvery-gray on the lower surfaces. *Lytocaryum*
- 8b. Leaflets green on the lower surfaces . . . 9.
- 9a. Fruits one-seeded. *Syagrus*
- 9b. Fruits multi-seeded *Attalea*

ACROCOMIA

One species in Rio de Janeiro.

Acrocomia aculeata (Jacq.) Lodd. "*macauba*, *mucuja*"

A solitary stemmed palm with tall, stout, spiny stems to 11 m tall and 50 cm diameter. The leaves are spiny, pinnate, with many, linear leaflets which are clustered and spread in different planes, giving the leaf a plumose appearance. Inflorescences are borne amongst the leaves. Fruits are large, smooth, yellowish, and rounded, and can reach 5 cm diameter.

Acrocomia aculeata (Fig. 1) is widely distributed through Central and South America. It grows

in open places and disturbed areas. It is uncommon in Rio.

ALLAGOPTERA

Two species in Rio de Janeiro.

Key to the species of *Allagoptera*

1a. Stems tall and aerial *A. caudescens*

1b. Stems short and subterranean . *A. arenaria*

Allagoptera arenaria (Gomes) Kuntze
"*caxandó*, *côco da praia*"

A clustered stemmed palm with short and subterranean stems, sometimes forming large clumps. The leaves are pinnate, and the leaflets



1. *Acrocomia aculeata*.

are irregularly arranged along the rachis and spread in different planes. The leaflets are somewhat gray-waxy. The unbranched inflorescences are borne amongst the leaves and stick up amongst them. The fruits are densely packed together, giving a club-shaped infructescence. The fruits are irregular in shape due to mutual pressure

Allagoptera arenaria (Fig. 2) occurs along the Atlantic coast of Brazil from Bahia to São Paulo. It grows on dunes and sandy soils near the sea shore. It is common in Rio although much reduced because of beach-front development. It has been recorded from Sepetiba Bay.

Allagoptera caudescens (Mart.) Kuntze "buri"

A solitary stemmed palm with stems to 8 m tall and 20 cm diameter (rarely, but not in Rio, the stems are short and subterranean). The leaves are pinnate, and the leaflets are irregularly arranged along the rachis and spread in different planes. The leaflets are white-wooly on the lower surfaces. The unbranched inflorescences are borne amongst

the leaves but curve down below them, and appear sausage-like when in fruit. The fruits are irregular in shape due to mutual pressure, and are to 4.5 cm long.

Allagoptera caudescens (Fig. 3), formerly included in the genus *Polyandrococos*, is distributed along the Atlantic coast of Brazil from Alagoas to Rio de Janeiro. It grows in lowland forest at low elevations, and persists in disturbed areas. In Rio it has been recorded from the Reserva Biológica Poço das Antas.

ASTROCARYUM

One species in the Rio de Janeiro region.

Astrocaryum aculeatissimum (Schott)Burret "brejauva"

A clustered stemmed palm with stems to 8 m tall and 15 cm diam., the stems densely covered with rings of black spines. The leaves are spiny and the leaflets are regularly arranged along the rachis and spread in the same plane. The leaflets are silvery-gray on the lower surfaces. Fruits are large, up to 4.5 cm long, and are covered with easily removed spines.

2 (left). *Allagoptera arenaria*. 3 (right). *Allagoptera caudescens*.



Astrocaryum aculeatissimum (Fig. 4) is distributed along the Atlantic coast of Brazil from Bahia in the north to Santa Catarina in the south. In Rio it has been recorded from Reserva Biológica do Tinguá, Reserva Biológica Poço das Antas, and the Parque Natural Municipal de Prainha.

ATTALEA

Three species in Rio de Janeiro.

Key to the species of *Attalea*

- 1a. Stems short and subterranean . *A. humilis*
- 1b. Stems tall and aerial 2.
- 2a. Leaflets irregularly arranged and spreading in different planes *A. dubia*
- 2b. Leaflets regularly arranged and spreading in the same plane *A. apoda*

Attalea apoda Burret “catolé”

Stems are tall and stout, and reach 10 m tall and 25 cm diam. The leaves are spreading to erect, and the numerous leaflets are regularly

arranged and spread in the same plane. The inflorescences are borne amongst the leaves. The fruits, borne in large bunches, are oblong, brown, and to 7 cm long.

Attalea apoda occurs in Minas Gerais and just enters Rio de Janeiro. It occurs in disturbed places. There is one record from Rio de Janeiro state, near Teresopolis.

Attalea dubia (Mart.) Burret “babassu, bacuaçu”

Stems are tall and stout, and reach 25 m tall and 35 cm diam. The leaves are spreading to erect, and the numerous leaflets are irregularly arranged and spread in different planes. The inflorescences are borne amongst the leaves and are pendulous. The fruits, borne in large bunches, are oblong, brown, and to 6.5 cm long.

Attalea dubia occurs along the Atlantic coast of Brazil from Espírito Santo to Santa Catarina. It occurs in lowland forest and coastal forests or disturbed places. It has been recorded from the Parque Natural Municipal de Prainha.

4 (left). *Astrocaryum aculeatissimum*. 5 (right). *Attalea humilis*.





6. *Bactris caryotifolia*.

Attalea humilis Mart. "catolé, pindoba"

Stems are short and subterranean. Leaves are erect and the leaflets are regularly arranged and spread in the same plane. The inflorescences are borne amongst the leaves and are erect. The fruits, borne in bunches, are oblong, brown, and to 9 cm long.

Attalea humilis (Fig. 5) occurs along the Atlantic coast of Brazil from Bahia to São Paulo. It grows in low forest near the sea or on grassy hillsides. In Rio it has been recorded from the Reserva Biológica Poço das Antas.

BACTRIS

Three species in Rio de Janeiro.

Key to the species of *Bactris*

- 1a. Leaflets wedge-shaped with jagged apices. *B. caryotifolia*
- 1b. Leaflets linear with pointed apices 2.
- 2a. Leaf sheath spines black or reddish-brown; leaflets silvery-gray on the lower surfaces. *B. vulgaris*
- 2b. Leaf sheath spines yellowish; leaflets green on the lower surfaces *B. setosa*

Bactris caryotifolia Mart. "tucum branco"

A small, spiny palm with clustered stems to 1.5 m tall and 2 cm diam. The leaflets are unique in *Bactris* in being wedge-shaped and having jagged apices. They are irregularly arranged and spread in different planes, and are silvery-gray on the lower surfaces. Inflorescences are borne amongst the leaves and have 4–6 flowering branches. Fruits are rounded, purple-black, and to 1.8 cm diameter.

Bactris caryotifolia (Fig. 6) occurs along the Atlantic coast of Brazil from Bahia to Rio de Janeiro. It grows in lowland forest at low elevations. In Rio it has been recorded from Parque Nacional Tijuca and Reserva Biológica do Tinguá.

Bactris vulgaris Barb. Rodr. "tucum, tucum preto"

A medium-sized, spiny palm with clustered stems to 3 m tall and 3.5 cm diam. Leaf sheaths are covered with black or reddish-brown spines. The leaflets are numerous (21–46 per side of the rachis), regularly arranged and spreading in the same plane, and are gray on the lower surfaces. Inflorescences are borne amongst the leaves. Fruits are rounded, purplish, and 2.4 cm diameter.

Bactris vulgaris occurs along the Atlantic coast of Brazil from Bahia to Rio de Janeiro. It grows in lowland forest. It has been recorded from the Parque Natural Municipal de Prainha.

Bactris setosa Mart. "jucúm, tucum"

A medium-sized, spiny palm with clustered stems to 6 m tall and 4 cm diam. Leaf sheaths are covered with yellowish, black-tipped spines. The leaflets are numerous (30–57 per side of the rachis), linear, regularly arranged and spreading in the same plane, and are green on the lower surfaces. Inflorescences are borne amongst the leaves. Fruits are rounded, purple-black, and to 2 cm diam.

Bactris setosa occurs along the Atlantic coast of Brazil from Bahia to Rio Grande do Sul. It grows in lowland forest in wet, swampy areas. In Rio it has been recorded from Parque Nacional Tijuca and Reserva Biológica Poço das Antas.

DESMONCUS

Two species in Rio de Janeiro

Key to the species of *Desmoncus*

1a. Leaf rachis with short, recurved spines on the lower surface; inflorescence bracts covered with short, recurved spines. . . ***D. polyacanthos***



7. *Desmoncus polyacanthos*.

1b. Leaf rachis with long, straight spines on the lower surface; inflorescence bracts usually without spines, brown felty. . . ***D. orthacanthos***

Desmoncus orthacanthos Mart. "jacitara"

A climbing or scrambling palm with stems to 4 m long and 2 cm diam. The leaf rachis has long, black spines on the lower surface. There are 6–10 leaflets per side of the rachis, and at the rachis apex the leaflets are modified into hooks. The inflorescence bract is without spines, and is felty-brown. Fruits are ovoid or ellipsoid and about 2 cm long.

Desmoncus orthacanthos is distributed along the Atlantic coast of Brazil from Pernambuco to Santa Catarina. It grows in forest or disturbed places at low elevations, especially near the sea. In Rio it has been recorded from disturbed places at low elevations near the sea.

Desmoncus polyacanthos Mart. "jacitara"

A climbing or scrambling palm with stems to 3 m long and 1.5 cm diam. The leaf rachis has short, recurved spines on the lower surface. There are 7–10 leaflets per side of the rachis, and at the rachis apex the leaflets are modified into hooks. The inflorescence bract is covered with short, recurved spines. Fruits are ovoid or ellipsoid and about 2 cm long.



8. *Euterpe edulis*.

Desmoncus polyacanthos (Fig. 7) is distributed along the Atlantic coast of Brazil from Pernambuco to Rio de Janeiro. It grows in disturbed places, especially at low elevations near the sea. In Rio it has been recorded from the Reserva Biológica Poço das Antas and the Parque Natural Municipal de Prainha

EUTERPE

One species in Rio de Janeiro.

***Euterpe edulis* Mart.**

“juçara”

A tall, solitary-stemmed palm with stems to 12 m tall and 15 cm diam. There is a prominent crownshaft at the apex of the stem. Leaflets are numerous, regularly arranged, and spread horizontally or are somewhat pendulous. Inflorescences are borne below the crownshaft and have many flowering branches. Fruits are rounded, purple-black, and about 1.5 cm diam.



9. *Geonoma elegans*.

Euterpe edulis (Fig. 8) is distributed along the Atlantic coast of Brazil, from Pernambuco to Rio Grande do Sul, and also reaches Argentina and Paraguay. It grows on forested slopes in the Atlantic Coastal Forest. In Rio it has been recorded from many places, including the Estação Ecológica do Paraíso, Ilha Grande, Parque Nacional Tijuca, Reserva Biológica Poço das Antas, Parque Nacional do Itatiaia, Parque Natural Municipal de Prainha, and Reserva

Biológica do Tinguá. *Euterpe edulis* is one source of palm heart, palmito, and was formerly much exploited.

GEONOMA

Nine species in Rio de Janeiro. The state is a center of diversity for this genus, but several species are poorly known and may eventually be included in other species.

Key to the species of *Geonoma*

- 1a. Inflorescences unbranched; veins on upper surfaces of leaves not raised 2.
- 1b. Inflorescences branched (rarely unbranched); veins on upper surfaces of leaves raised. 3.
- 2a. Leaves undivided, narrow *G. bifurca*
- 2b. Leaves with 3 broad leaflets per side of the rachis, occasionally also with a few narrow leaflets *G. elegans*
- 3a. Inflorescences with 2 or 3 flowering branches. 4.
- 3b. Inflorescences with numerous flowering branches. 5.
- 4a. Leaves with 3 broad leaflets per side of the rachis *G. rodeiensis*
- 4b. Leaves with to 20 narrow leaflets per side of the rachis *G. trinervis*
- 5a. Leaves with to 34 narrow, closely spaced leaflets per side of the rachis . . . *G. schottiana*
- 5b. Leaves with 3–7 or more, widely spaced leaflets per side of the rachis 6.
- 6a. Flowering branches noticeably hairy *G. fiscellaria*
- 6b. Flowering branches not hairy 7.
- 7a. Flowering branches unusually narrow with widely spaced pits *G. gastoniana*
- 7b. Flowering branches not narrow 8.
- 8a. Inflorescences with 6–8 short and narrow flowering branches *G. wittigiana*
- 8b. Inflorescences with 4–32 long and stout flowering branches *G. pohliana*

Geonoma bifurca Drude

A small, understory palm with clustered, ringed, brown stems to 2 m tall and 1 cm diam. The leaves are undivided and narrow and the veins on upper surfaces are not raised. The inflorescence is unbranched. The fruits are unknown.

Geonoma bifurca occurs only in Rio de Janeiro. It grows in lowland forest on mountain slopes. In Rio it has been recorded from the Parque Estadual de Desengano. It is similar to *G. elegans* but differs in its narrow, undivided leaf.

Geonoma elegans Mart. "ouricana"

A small, understory palm with clustered, ringed, brown stems to 2 m tall and 1 cm diam.

The leaves are usually divided into three broad leaflets, and occasionally there are also with a few narrow leaflets. The veins on upper surfaces are not raised. The inflorescence is unbranched and projects above the leaves. The fruits are small, black, ellipsoid, and to 1 cm long.

Geonoma elegans (Fig. 9) occurs along the Atlantic coast of Brazil from southern Bahia to Santa Catarina. It grows in lowland forest. In Rio it has been recorded from many places, including the Parque Nacional Tijuca and Reserva Biológica Poço das Antas.

Geonoma fiscellaria Mart.

A medium-sized palm with clustered, brown, ringed stems to 4 m tall and 4 cm diam. The leaves are pinnate with few to several, broad or narrow, regularly arranged leaflets. The veins on the upper surfaces are raised. Inflorescences are borne amongst the leaves and have numerous flowering branches, and these are noticeably hairy. Fruits are ovoid, black, and to 1.5 cm long.

Geonoma fiscellaria occurs only in Rio de Janeiro state. It grows in forest on mountain slopes. In Rio it has been recorded only from near Petropolis. Three species described by Barbosa Rodrigues from the same locality in Rio de Janeiro – Rodeio – are considered synonyms of *G. fiscellaria*: *G. barbiger* Barb. Rodr., *G. pilosa* Barb. Rodr. and *G. tomentosa* Barb. Rodr.

Geonoma gastoniana Glaz. ex Drude

A small-sized palm with brown, ringed stems to 1 m tall and 1 cm diam. The leaves are pinnate with few to several, broad or narrow, regularly arranged leaflets. The veins on the upper surfaces are raised. Inflorescences are borne amongst the leaves and have numerous flowering branches, and these are unusually narrow. Fruits are unknown.

Geonoma gastoniana occurs only in Rio de Janeiro state. It grows in forest on mountain slopes. It has been recorded from the Reserva Biológica do Tinguá.

Geonoma pohliana Mart. "ouricana, ouricana preta"

A medium-sized palm with clustered, brown, ringed stems to 4.5 m tall and 2 cm diam. The leaves are pinnate with to 3–7 broad, regularly arranged leaflets. The veins on the upper surfaces are raised. Inflorescences are borne amongst or below the leaves and have 4–32

flowering branches. Fruits are ovoid, black, and to 1.2 cm long.

Geonoma pohliana occurs along the Atlantic coast of Brazil from Espírito Santo to Rio Grande do Sul. It grows in lowland forest on mountain slopes. In Rio it has been recorded from the Parque Nacional Tijuca, Parque Nacional da Serra dos Órgãos, and the Parque Estadual da Pedra Branca.

Geonoma rodeiensis Barb. Rodr.

A medium-sized palm with stems to 4.5 m tall and 4 cm diam. Leaves are pinnate with 3 broad leaflets per side of the rachis and occasionally there are also with a few narrow leaflets. The veins on the upper surfaces are raised. Inflorescences are branched with 2 or 3 flowering branches (rarely unbranched). Fruits are rounded, black, and to 1 cm long.

Geonoma rodeiensis occurs only in Rio de Janeiro state. It grows on steep mountain slopes in forest. It is poorly known and the original locality is now destroyed, but a similar-looking palm has been recorded from Sepetiba Bay.

Geonoma schottiana Mart. "ouricana"

A medium-sized palm with solitary, brown, ringed stems to 3.5 m tall and 3 cm diam. The leaves are pinnate with to 34 narrow, regularly arranged, closely spaced leaflets. The veins on the upper surfaces are raised. Inflorescences are borne amongst or below the leaves and are much branched. Fruits are ovoid, black, and to 1.3 cm long.

Geonoma schottiana occurs in southeastern Brazil in Espírito Santo, Minas Gerais, Paraná, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, and São Paulo. It grows in lowland forest or gallery forest. In Rio it is common and has been recorded from the Parque Nacional da Serra dos Órgãos and Parque Nacional Tijuca.

Geonoma trinervis Drude & H. Wendl.

A small, understory palm with clustered, ringed, brown stems to 2 m tall and 1 cm diam. The leaves are pinnate with to 20 narrow, small leaflets which are regularly arranged. The veins on the upper surfaces are raised. The inflorescence has 2 or 3 stout flowering branches. The fruits are ovoid, purple-black, and to 1 cm long.

Geonoma trinervis occurs only in Rio de Janeiro state. It grows in lowland forest on mountain slopes. In Rio it has been recorded from the Parque Nacional da Serra dos Órgãos.

Geonoma wittigiana Glaz. ex Drude

A small, understory palm with clustered, ringed, brown stems to 1.5 m tall and 1 cm diam. The leaves usually have three broad leaflets per side of the rachis, but sometimes narrower leaflets are also present. The veins on the upper surfaces are raised. The inflorescence is branched with 6–8, short and narrow flowering branches. The fruits are unknown.

Geonoma wittigiana occurs only in Rio de Janeiro state. It grows in forest on steep mountain slopes. In Rio it has been recorded only from the Parque Nacional da Serra dos Órgãos. In its leaves it is very similar to *G. elegans* but differs in its branched inflorescences.

LYTOCARYUM

One species in Rio de Janeiro.

Lytocaryum weddellianum (H. Wendl.) Tol. "agué, icá"

A solitary stemmed palm with stems to 5 m tall and 10 cm diameter. The upper part of the stem is covered with persistent leaf bases. The sheaths, petioles and rachis are densely covered with dark hairs. The leaflets are narrow, regularly arranged, spread in the same plane, and are silvery-gray on the lower surfaces. Inflorescences are borne amongst the leaves and arch out from them. Fruits are ovoid to ellipsoid and are to 2.3 cm long and 1.7 cm wide.

Lytocaryum weddellianum (Fig. 10) occurs along the Atlantic coast of Brazil, from Espírito Santo to Rio de Janeiro. It grows in lowland rain forest in the Atlantic Coastal Forest. In Rio it has been recorded from Serra dos Órgãos.

SYAGRUS

Four species in Rio de Janeiro.

Key to the species of *Syagrus*

- 1a. Fruits with a prominent 'beak'; peduncular bracts deeply grooved *S. pseudococos*
- 1b. Fruits without a prominent beak; peduncular bracts not deeply grooved 2.
- 2a. Fruits rounded *S. romanzoffianum*
- 2b. Fruits ovoid or ellipsoid 3.
- 3a. Fruits 4.5 cm long *S. picrophylla*
- 3b. Fruits to 7cm long *S. macrocarpa*

10. *Lytocaryum weddellianum*.***Syagrus macrocarpa*** Barb. Rodr. “*Maria Rosa*”

A solitary stemmed palm with stems to 8 m tall and 20 cm diam. The upper part of the stem is often covered with persistent leaf bases. The linear leaflets are irregularly arranged in clusters and spread in different planes. Inflorescences are borne amongst the leaves, and the female flowers are exceptionally long, to 3.5 cm. The peduncular bract is shallowly grooved. Fruits are brown, ellipsoid, and to 7 cm long and 3 cm wide.

Syagrus macrocarpa occurs along the Atlantic coast of Brazil in Espírito Santo, Minas Gerais, and Rio de Janeiro. It grows in seasonal forest in rocky places. It is uncommon in Rio but may occur in the western part of the state.

Syagrus pseudococos (Raddi) Glassman “*côco amargoso*”

A solitary stemmed palm with stems to 15 m tall and 25 cm diam. The upper part of the

stem is often covered with persistent leaf bases. The leaflets are irregularly arranged in clusters and spread in different planes. Inflorescences are borne amongst the leaves. The peduncular bract is deeply grooved. Fruits are brown, ellipsoid with a prominent ‘beak,’ and to 7 cm long and 4 cm wide.

Syagrus pseudococos occurs along the Atlantic coast of Brazil in Espírito Santo, São Paulo, and Rio de Janeiro. It grows in scrub areas, sometimes on almost bare rock. It has been recorded from the Parque Natural Municipal de Prainha.

Syagrus picrophylla Barb. Rodr. “*licuri*”

A solitary stemmed palm with stems to 7 m tall and 20 cm diam. The upper part of the stem is often covered with persistent leaf bases. The leaflets are irregularly arranged in clusters and spread in different planes. Inflorescences are borne amongst the leaves. The peduncular bract is shallowly grooved. Fruits are orange, ellipsoid, and to 4.5 cm long and 3.5 cm wide.



11. *Syagrus romanzoffiana*.

Syagrus picrophylla occurs along the Atlantic coast of Brazil in Bahia, Espírito Santo, and Rio de Janeiro. It grows in scrub forest on steep slopes with granite outcrops. It is uncommon in Rio but is known from the Parque Natural Municipal de Prainha.

Syagrus romanzoffiana (Cham.) Glassman
"guariroba"

A solitary stemmed palm with stems to 15 m tall and 50 cm diam. The upper part of the stem is often covered with persistent leaf bases. The leaflets are irregularly arranged in clusters and spread in different planes, and the tips of the leaflets are pendulous. Inflorescences are

borne amongst the leaves. The peduncular bract is shallowly grooved. Fruits are brown, ovoid, and to 3 cm long and 2 cm wide.

Syagrus romanzoffiana (Fig. 11) occurs along the Atlantic coast and adjacent inland areas of Brazil, and also reaches Paraguay, Uruguay, and Argentina. It grows in a variety of habitats, and can persist in disturbed areas. It is common in Rio. This is the commonly cultivated 'queen palm.'

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