

## LOMARIOPSIDACEAE

藤蕨科 teng jue ke

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Plants large, terrestrial, climbing, or epiphytic. Rhizomes stout, ascending or long scandent, dorsiventral, with roots on ventral side and several rows of fronds on dorsal side, bearing numerous scales on rhizome apex. Fronds distant, monomorphic or dimorphic, imparipinnate; stipes densely scaly at base; scales black, lanceolate or linear; lateral pinnae articulate to rachis; sterile pinnae linear-lanceolate, margin entire or serrate; veins free or anastomosing in several rows of areoles, without included free veinlets. Fertile fronds with narrow, linear pinnae. Sori dorsal on veinlets, in 1–4 rows on each side of costa, or acrostichoid, completely covering abaxial surface of pinnae, exindusiate; annulus consisting of 14–22 thick-walled cells. Spores elliptic or orbicular.

Three genera and ca. 40 species: pantropical, mainly in Asia, Africa, and Oceania; two genera and four species (one endemic) in China.

Wang Chuhao. 1999. Lomariopsidaceae (excluding *Lomagrumma*). In: Wu Shiewhung, ed., *Fl. Reipubl. Popularis Sin.* 6(1): 125–129; Hsieh Yingtang. 2001. *Cyclopetlis*. In: Kung Hsiangshiu, ed., *Fl. Reipubl. Popularis Sin.* 5(2): 182–184.

1a. Plants terrestrial; sori orbicular, in 1–4 rows on each side of costa ..... 1. *Cyclopetlis*  
1b. Plants epiphytic and/or climbing; sori acrostichoid, completely covering abaxial surface of pinnae ..... 2. *Lomariopsis*

### 1. CYCLOPELTIS J. Smith, Bot. Mag. 72: 36. 1846.

拟贯众属 ni guan zhong shu

Zhang Xianchun (张宪春); David S. Barrington

*Hemicardion* Fée.

Plants terrestrial. Rhizome ascending, short, thick, bearing numerous scales on rhizome apex and stipe, smaller upward on rachis and lower side of costae; scales chestnut-brown, linear, margin toothed. Fronds tufted, bright bluish green above when fresh, narrowly elliptic-lanceolate, 1-pinnate; stipe and rachis not or only slightly channeled, not winged; pinnae alternate, mostly sessile, lowest pinnae shortly stalked, upper pinnae falcate, glabrescent adaxially, subentire, usually articulate to rachis; costa prominent above, not grooved; veins free, forked several times. Sori orbicular, dorsal on veinlets, in 1–4 rows on each side of costa; indusia peltate; spores bilateral, ellipsoid, with perispore folds, granular.  $n = 41$ .

Five or six species: tropical Asia and America; one species in China.

1. *Cyclopetlis crenata* (Fée) C. Christensen, Index Filic., Suppl. 3: 64. 1934.

拟贯众 ni guan zhong

*Hemicardion crenatum* Fée, Mém. Foug. 5: 283. 1852.

Rhizome ascending, stiff, short, thick, apex and base of stipes with dense scales; scales brown, linear, up to ca. 1.5 cm, margin with numerous regular sharply pointed teeth. Fronds 70–90 cm; stipe 25–55 cm, 4–5 mm in diam. at base, brown; lamina bright bluish green above when fresh, narrowly elliptic-lanceolate, 50–65 × 12–25 cm, 12–25 cm wide at middle, base attenuate, 1-pinnate, apex long acuminate; pinnae 10–15 pairs,

alternate, articulate to rachis, lanceolate, middle pinnae 8–14 × 1.5–2.8 cm, base truncate on acroscopic side, cordate on basiscopic side and auriculate over rachis, margin undulate-serrate, apex subacuminate or caudate; veins free, 4-forked, reaching margin; texture papery; short erect multicellular hairs at pinna base near rachis, along costa abaxially, and sparsely at pinna margins and on surfaces. Sori orbicular, dorsal on veinlets, in 1–4 rows on each side of costa; indusia peltate, with a few minute marginal hairs; spores monoete, with perispore folds, granular.

Clay soil in forests, beside rocks along streams; 400–1300 m. Hainan, ?Yunnan [Laos, Malesia, Myanmar, Thailand, Vietnam].

### 2. LOMARIOPSIS Fée, Mém. Foug. 2: 10. 1845.

藤蕨属 teng jue shu

Xing Fuwu (邢福武), Wang Faguo (王发国); Masahiro Kato

Climbers, large. Rhizome long creeping on tree trunk, stout, bearing roots ventrally and fronds in 3–5 dorsal rows, dictyostelic, apex densely covered with black opaque scales. Stipes stramineous, often terete, gradually decurrent into ridges of rhizome; lamina

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simply pinnate, lateral pinnae articulate to rachis, terminal pinnae not so, pinnae equal, shortly stalked, lanceolate, leathery or papery, glabrescent, margin entire; veins all free, simple or forked, parallel and terminating at cartilaginous margin; fertile pinnae contracted, linear to linear-oblong. Sori acrostichoid, completely covering abaxial surface of pinnae; annulus consisting of 14–22 thick-walled cells. Spores monolete, brownish, elliptic.  $x = 41$ .

About 20 species: tropical Asia and Africa; three species (one endemic) in China.

- 1a. Lateral pinnae of sterile lamina 3–5 cm wide, abruptly narrowed to caudate apex 2–3 cm ..... 1. *L. cochinchinensis*  
 1b. Lateral pinnae of sterile lamina 1.2–2.2 cm wide, apex acuminate.  
 2a. Lateral pinnae of sterile lamina ca.  $18 \times 2$  cm; veins oblique, free ..... 2. *L. spectabilis*  
 2b. Lateral pinnae of sterile lamina ca.  $26 \times 1.2$ –1.5 cm; veins spreading, occasionally anastomosing ..... 3. *L. chinensis*

**1. *Lomariopsis cochinchinensis*** Fée, Mém. Foug. 2: 66. 1845.

藤蕨 teng jue

*Stenochlaena cochinchinensis* (Fée) Underwood.

Plants to 3 m or longer. Rhizome stramineous, 1–1.2 cm in diam., apex densely covered with scales; scales dark brown, lanceolate,  $5\text{--}6 \times 1\text{--}1.5$  mm, base peltate, margin sparsely toothed, apex acuminate. Fronds leathery, both surfaces glabrous; stipe brown, 10–20 cm, grooved adaxially, scaly; juvenile lamina simple, lanceolate,  $18\text{--}22 \times 4.5\text{--}5$  cm, margin entire, apex caudate-acuminate. Mature lamina pinnate, with terminal pinna elliptic,  $35\text{--}40 \times 15\text{--}20$  cm; lateral pinnae ca. 10 pairs,  $1.5\text{--}2$  cm apart, lanceolate, oblique,  $12\text{--}20 \times 3\text{--}5$  cm, with short stalk ca. 3 mm, cuneate and nearly symmetrical at base, margin entire, abruptly narrowed to caudate apex 2–3 cm; lateral pinnae articulate to rachis, terminal pinna not articulate; veins obvious on both surfaces, free, simple or forked, oblique. Fertile pinnae linear,  $10\text{--}15 \times 0.3\text{--}0.5$  cm, basal pinnae with stalk 8–10 mm. Sori acrostichoid.  $2n = 164$ .

Climbing on tree trunks in dense forests; ca. 300 m. SE Yunnan [Cambodia, Indonesia, Malaysia, Vietnam].

**2. *Lomariopsis spectabilis*** (Kunze) Mettenius, Fil. Hort. Bot. Lips. 22. 1856.

美丽藤蕨 mei li teng jue

*Lomaria spectabilis* Kunze, Bot. Zeitung (Berlin) 6: 144. 1848.

Rhizomes rufous, 1–1.2 cm in diam., bearing roots ventrally and fronds in several dorsal rows, densely scaly; scales brown, lanceolate, ca.  $6 \times 2$  mm, margin toothed. Fronds leathery; stipe stramineous, 10–30 cm, grooved adaxially, decurrent into ridges of rhizome; juvenile lamina simple, shortly stalked,

narrowly lanceolate,  $20\text{--}25 \times 1\text{--}1.5$  cm, base narrowly cuneate, apex acute. Mature lamina pinnate; lateral pinnae 8–15 pairs, 4–6 cm apart, lanceolate,  $12\text{--}18 \times$  ca. 1.5 cm, shortly stalked, both surfaces glabrous, base cuneate and decurrent, margin entire or slightly undulate, apex acuminate; lamina articulate to rachis, terminal pinna not articulate; upper part of rachis narrowly winged; veins obvious on both surfaces, free, simple or forked, oblique. Fertile lamina narrowly elliptic, similar to sterile lamina but pinnae much contracted; pinnae linear,  $10\text{--}20 \times$  ca. 0.3 cm, subsessile, articulate. Sori acrostichoid; perispore consisting of many small wings.  $2n = 82$ .

Climbing on tree trunks and rocks in dense forests; 100–800 m. Hainan, Taiwan [Indonesia, Malaysia, Philippines, Vietnam].

**3. *Lomariopsis chinensis*** Ching, Acta Phytotax. Sin. 21: 217. 1983.

中华藤蕨 zhong hua teng jue

Rhizomes stramineous, 1–1.2 cm in diam., densely scaly, naked when old; scales dark brown, broadly lanceolate, ca.  $6 \times 1.5\text{--}2$  mm, base peltate, margin toothed, apex acuminate. Fronds dark green when dry, thickly papery, both surfaces glabrous; stipe stramineous, 15–25 cm, grooved adaxially, scaly; sterile lamina pinnate, elliptic,  $50\text{--}60 \times 22\text{--}25$  cm, shortly stalked; pinnae ca. 20 pairs, 3–3.5 cm apart, narrowly lanceolate or sub-linear,  $22\text{--}26 \times 1.2\text{--}1.5$  cm, with stalk ca. 8 mm, articulate to rachis, base subequal, narrowly cuneate, margin entire, apex acuminate; veins obvious on both surfaces, free, simple or forked, spreading, unequally spaced, occasionally anastomosing to form small elliptic areoles. Fertile lamina similar to sterile lamina; pinnae much contracted, linear,  $18\text{--}26 \times 0.25\text{--}0.3$  cm, basal pinnae with stalk ca. 8 mm. Sori acrostichoid.

• Climbing on tree trunks in dense forests; ca. 300 m. SE Yunnan (Hekou).