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贡嘎山蹄盖蕨科新分类群*

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摘要 描述了四川贡嘎山地区蹄盖蕨科 3 新种 1 新变种, 即贡嘎蹄盖 *Athyrium gonggaense*, 泸定蹄盖蕨 *A. ludingense*, 密羽华中蹄盖蕨 *A. wardii* var. *densipinnum* 和泸定蛾眉蕨 *Lunathyrium ludingense*。

关键词 蹄盖蕨科, 新分类群, 贡嘎山, 四川

NEW TAXA OF ATHYRIACEAE FROM MT. GONGGA (MINYA GONKAR), SICHUAN, CHINA

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Abstract The paper described 3 new species and 1 new variety of *Athyriaceae* from Mt. Gongga (Minya Gonkar), Sichuan, China, i.e. *Athyrium gonggaense*, *A. ludingense*, *A. wardii* var. *densipinnum* and *Lunathyrium ludingense*.

Key words *Athyriaceae*, New taxa, Mt. Gongga, Sichuan

1. 贡嘎蹄盖蕨 新种 图 1: 5—8

Athyrium gonggaense Z. R. Wang et L. B. Zhang, sp. nov. fig. 1: 5—8

Species habitu affinis *A. mackinnoni* (Hope) C. Chr., differt rhachidibus pinnarum supra medium infra multo brevi-pubescentibus, angusti-alis margine plus minus pubescentibus; etiam *A. dubio* Ching affinis, sed lamina basi latiore, pinnis breviter petiolatis, soris longioribus ad 3 mm longis, stipite basi lineari-lanceolate paleaceis differt.

Tota planta 65—106 cm alta. Rhizoma erectum; frondibus caespitosis. Stipes 30—45 cm longus, basi 3—4 mm diam.; paleis lineari-lanceolatis, brunneis, membranaceis dense obiectus. Lamina triangulata, 33—61 cm longa, 34—46 cm basi lata, apice acuminata, basi leviter angusta, bipinnata. Pinnae 14—18-jugatae, sursum patentes, alternae, breviter petiolatae, bassales leviter angustae, lanceolatae,

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14—22 cm longae, 4—6 cm medio latae, apice caudatae, basi inaequilaterales, antice truncatae auriculatae, postice cuneatae, pinnatae. Rhachides pinnarum supra medium infra brevi-pubescentae; angustialis margine plus minus pubescentibus. Pinnulae 16—22-jugatae, alternae, catadromae, subpatentes, herbaceae, sessiles, 1.5—2.6 cm longae, 0.6—1.0 cm latae, apice obtusae, basi inaequilaterales, antice

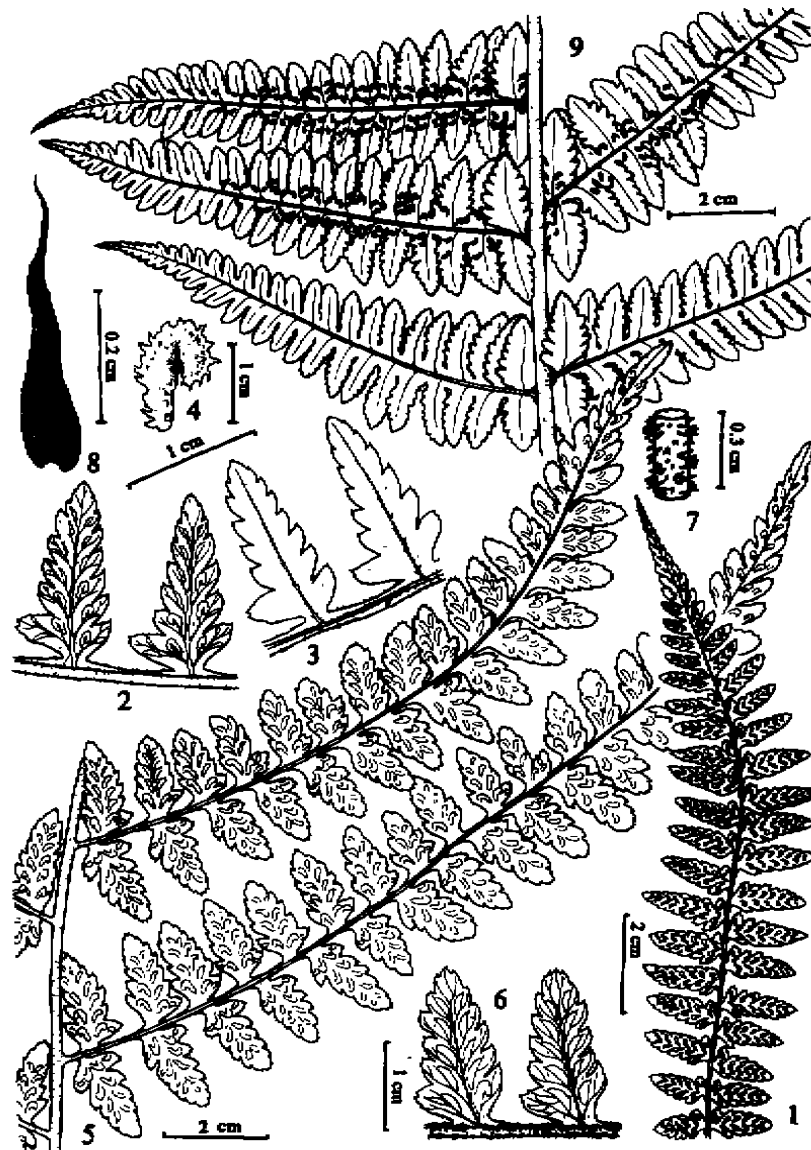


图 1 泸定蹄盖蕨 1.羽片; 2.小羽片背面; 3.小羽片腹面; 4.囊群盖; 5—8.贡嘎蹄盖蕨; 5.叶片中部一段; 6.小羽片; 7.叶轴一段; 8.叶柄鳞片; 9.泸定蛾眉蕨叶片中部一段。(陈楚绘)

Fig. 1 1—4. *Athyrium ludingense* 1. pinna; 2. back of pinnules; 3. Surface of pinnules; 4. indusium. 5—8. *A. gonggaense* 5. part of the middle of blade; 6. pinnules; 7. part of rachis; 8. Stipe scale. 9. *Lunathyrium ludingense* part of the middle of blade.

truncatae auriculatae, postice cuneatae, margine pinnatifidae; lobi margine dentati. Venae infra conspicuae; nervis lateralis 4—5-jugatis, dichotomis. Sori oblongi vel lunati, ad 3 mm longi, brunnei, in utrinque costae latere uniseriati, costulae approximati; indusiis oblongis vel lunatis, brunneolis, membranaceis, erosis, persistentibus.

Sichuan (四川): Luding (泸定), Moxi (磨西), alt. 3000 m in forest, L. B. Zhang (张丽兵) 963 (Typus, CDBI 成都生物研究所; frag. & copy, PE), 2. IX. 1991; *ibid.*, alt. 2300 m, L. B. Zhang (张丽兵) 107; alt. 3150 m, 950; alt. 2750 m, 1002, 1025, 1027; Shimian (石棉), Anshun (安顺), alt. 2300 m, L. B. Zhang (张丽兵) 555.

本种形态介于川滇蹄盖蕨 *A. mackinnoni* (Hope) C. Chr. 和毛翼蹄盖蕨 *A. dubium* Ching 之间, 不同于前者在于羽轴中上部的下面被有较多短毛, 狭翅边缘多少有毛; 不同于后者在于羽片有短柄, 基部羽片较宽, 孢子囊群长, 可达 3 mm, 叶柄基部鳞片线状披针形。

2. 泸定蹄盖蕨 新种 图 1:1—4.

Athyrium ludingense Z. R. Wang et L. B. Zhang, sp. nov. fig. 1:1—4

Species proxime affinis *A. mackinnoni* (Hope) C. Chr., sed lamina supra et lobis margine laxe brevi-pubescentibus; rhachidibus pinnarum infra et angustialis item multo brevi-pubescentibus; indusis erosis differt.

Tota planta 68 cm alta. Rhizoma erectum; frondibus caespitosis. Stipes 25 cm longus, basi 4 mm diam.; paleis lineari-lanceolatis, brunneis, membranaceis dense obtectus. Lamina triangulata, 43 cm longa, 23 cm prope basi lata, apice acuminata, basi leviter angusta, bipinnata. Pinnae 16-jugatae, sursum patentes, alternae, breviter petiolatae, lanceolatae, 10—14 cm longae, 2—4 cm medio latae, apice caudatae, versus basin angustae, basi inaequilaterales antice cuneatae vel truncatae, postice cuneatae, pinnatae. Rhachides pinnarum infra brevi-pubescentes; angustialis brevi-pubescentibus. Pinnulae 15—20-jugatae, alternae, anadromae vel catadromae, patentes, herbaceae, sessiles, 1.2—1.7 cm longae, 0.3—0.4 cm latae, apice acutae, basi inaequilaterales, antice truncatae auriculatae, postice cuneatae, margine pinnatifidae, supra laxe brevi-pubescentes; lobi margine dentati, laxe brevi-pubescentibus. Venae infra conspicuae; nervis laterales 4—5-jugatis, dichotomis. Sori unciformi, brunnei, in utrinque costae latere uniseriati, costulae approximati; indusiis unciformis, brunneolis, membranaceis, margine erisis, persistentibus.

Sichuan (四川): Luding (泸定), Moxi (磨西), alt. 2700 m, in forest, L. B. Zhang (张丽兵) 1026 (Typus, CDBI 成都生物研究所; frag. & copy, PE), 3. IX. 1991.

本种近川滇蹄盖蕨 *A. mackinnoni* (Hope) C. Chr., 但叶片上面及裂片边缘有疏短毛, 羽轴下面及狭翅上也有较多短毛, 囊群盖边缘啮蚀状。

3. 密羽华中蹄盖蕨 新变种

Athyrium wardii (Hook.) Makino var. *densipinnum* Z. R. Wang et L. B. Zhang, var. nov.

Varietas a forma normali differt pinnis et pinnulis densis.

Sichuan (四川): Kangding (康定), Yala (雅拉), alt. 3600 m, L. B. Zhang et X. S. Guo (张丽兵、郭晓恩) 2069 (Typus, CDBI 成都生物研究所; frag. & copy, PE), 16. X. 1991.

本变种与原变种的区别是羽片及小羽片较密, 彼此接近。

4. 泸定蛾眉蕨 新种 图 1:9

Lunathyrium ludingense Z. R. Wang et L. B. Zhang, sp. nov. fig. 1:9

Species *L. wilsonii* (Christ) Ching similis, differt pinnis inferioribus longe ovato-triangularis vel ovato-lanceolatis, versus basin manifeste ampliatis reflexis; lobis apice acutis vel obtusis, margine serratis.

Tota planta 97 cm alta. Rhizoma erectum; frondibus caespitosis. Stipes 27 cm longus, basi 5 mm diam., sparse paleaceus; paleis ovatis vel ovato-lanceolatis, brunneis, membranaceis obtectus. Lamina elliptico-lanceolata, 70 cm longa, 21 cm lata, apice acuminata, versus basin gradatim angusta sterilis, bipinnatifida. Pinnae 26-jugatae, sursum patentes, alternae, sessiles, inferiores versus basin manifeste ampliatae reflexae longe ovato-triangularae vel ovato-lanceolatis, 5—11 cm longae, 2.0—2.5 cm medio latae, apice caudatae, basi inaequilaterales, pinnatifidae. Lobi 11—18-jugati, alterni, patentes herbacei, sessiles, 1.2—1.6 cm longi, 0.3—0.5 cm lati, apice steriles acuti vel obtusi, basi inaequilaterales, antice truncati, postice cuneati, margine serrati. Venae 6—9-jugatae, penniformae, utrinque conspicuae; nervis lateralis dichotomis. Sori oblongi vel lunati, brunnei, in utroque costae latere uniseriati; indusiis oblongis vel lunatis, brunneolis, membranaceis, erosis, solitariis, persistentibus.

Sichuan (四川): Luding (泸定), Moxi (磨西), alt. 3600 m, on meadow, L. B. Zhang (张丽兵) 1172 (Typus, CDBI 成都生物研究所; frag. & copy, PE), 6. IX. 1991.

本种近峨山峨眉蕨 *L. wilsonii*(Christ) Ching, 不同在于中片下部的羽片长卵状三角形或卵状披针形, 向基部明显增大, 并多少向羽片基部反弯, 裂片顶端急尖或圆钝, 边缘有粗锯齿。