

**A Note on the Genus *Gollania* (Musci) from Southwestern China,  
with a Description of a New Species, *G. homalothecioides***

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Five species of *Gollania* (Musci) were found among a moss collection from Southwestern China. Among them, *Gollania homalothecioides* Higuchi is described as new to science.

The genus *Gollania* is a pleurocarpous moss of the family Hypnaceae, being mainly distributed in the temperate regions of East Asia. When Higuchi (1985) revised the genus, very few Chinese specimens were available for his examination. The distribution of species in China has not been studied well.

The present paper deals with the collection of *Gollania* from Sichuan Province and Yunnan Province and deposited in the herbarium of Institute of Botany, Academia Sinica (PE). Among the collection, we recognized five species of *Gollania*, including a new species, *Gollania homalothecioides* Higuchi. Duplicates of the collection studied are kept in the Herbarium of the National Science Museum, Tokyo (TNS).

1) ***Gollania homalothecioides* Higuchi, sp. nov.** (Fig. 1)

Dioica ? Caulis repens, ad 7 cm longus, pinnatim ramosus, ramis inaequilongis, teretifoliatis, ad 1.5 cm longis. Pseudoparaphyllia foliacea, lanceolata. Folia caulina ovato-lanceolata, apice sensim latiuscule acuminata, e basi subcordata, profunde plicata, nervis binis, marginibus in acumine inferiore recurvis, superne serratis, inferne serrulatis, cellulis medianis

linearibus, alaribus numerosis, irregulariter hexagonis, subquadratis vel rectangularibus. Folia ramea minor, oblongo-lanceolata, ceterum similia. Fructus ignotus.

Dioicous ? Plants yellowish- to brownish-green, somewhat glossy. Stems prostrate, to 7 cm long, elliptical in cross-section, with slightly differentiated central strand, densely, pinnately branched; leafy stems subjulaceous; branches subjulaceous, irregular in length, to 1.5 cm long. Pseudoparaphyllia lanceolate with filiform acumina, 8–15 cells wide at base. Stem leaves straight or weakly falcate, ovate-lanceolate, gradually narrowed to a rather wide acumen, sometimes twisted near the apex, subcordate at base, short-decurrent, deeply (2–)4 plicate, 2.1–2.8×0.8–1.0 mm; margins plane, but slightly recurved at base of acumen, irregularly serrate above, weakly serrulate below; costae double, 1/8–1/6 the leaf length, usually separated at base; median laminal cells linear, weakly flexuose, lumina 30–60×3–5 μm, thick-walled, smooth; upper laminal cells rarely prorate at upper ends on both dorsal and ventral sides; basal laminal cells larger and thicker-walled than median cells, porose; alar cells well-differentiated, subquadrate to

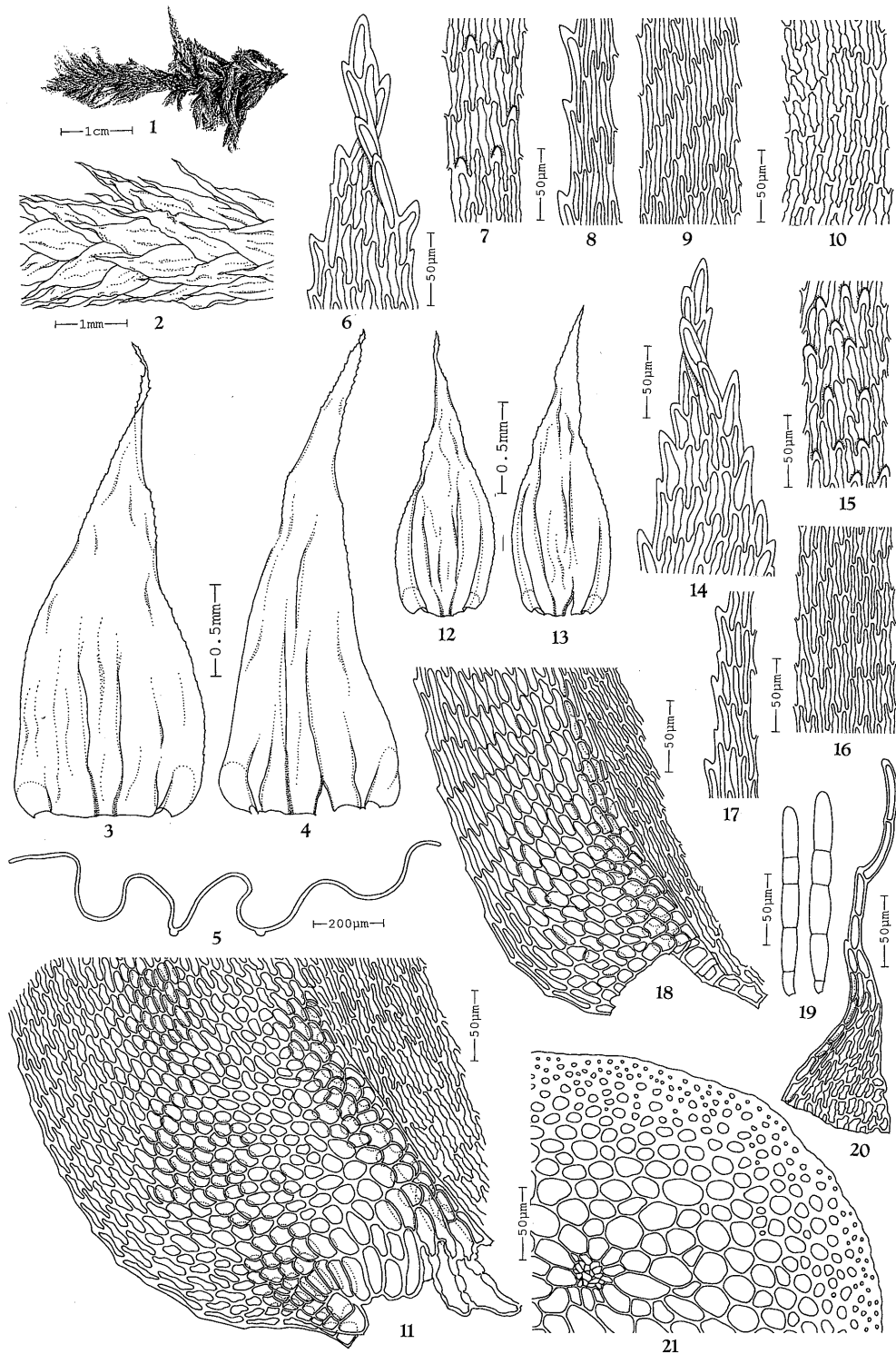


Fig. 1. *Gollania homalothecioides* Higuchi. 1. Plant. 2. Part of branch. 3, 4. Stem leaves. 5. Transverse section of basal part of stem leaf. 6-11. Laminal cells of stem leaf (6: apical part, 7: upper part, 8: median marginal part, 9: median central part, 10: basal part, 11: alar part). 12, 13. Branch leaves. 14-18. Laminal cells of branch leaf (14: apical part, 15: upper part, 16: median central part, 17: median marginal part, 18: alar part). 19. Axillary hairs. 20. Pseudoparaphyllium. 21. Part of transverse section of stem. All drawn from holotype.

rectangular or irregularly hexagonal, 15–25 in median longitudinal row, 15–20 in transverse row, more or less linear in a few marginal rows. Branch leaves smaller, oblong-lanceolate, 1.7–2.3×0.6–0.7 mm.

Sexual organs and sporophytes unknown.

Type: CHINA, Prov. Sichuan, Aba County, Mt. A-Yi La, 3700 m, on decaying wood, June 1983, S. He 31029 (holotype in PE; isotypes in NY, TNS).

Distr. Known only from the type collection.

This new species is distinguished from the other known species of the genus by the following characters: (1) stems densely, pinnately branched; (2) leafy stems and branches subjulaceous; (3) stem and branch leaves deeply (2–)4 plicate; and (4) alar cells well differentiated.

*Gollania turgens* (C. Müll.) Ando, a widely distributed (East Asia and northern North America) and highly variable species, is most closely related to the present new species by the plicate leaves with parallel costae and thick-walled laminal cells. In *G. turgens*, however, stem and branch leaves are distinctly falcate and not so deeply plicate, and have narrower, serrulate acumen; basal leaf margins are much more recurved and subentire; costae are longer, 1/4–1/3 the leaf length; laminal cells are longer and smooth; and alar cells are less differentiated.

In appearance, especially by its julaceous leafy stems and branches, *G. cylindricarpa* (Mitt.) Broth., known from Nepal, Bhutan, Yunnan, and Taiwan, is also similar to *G. homalothecioides*, but it differs in the less plicate leaves, the much more strongly recurved and subentire leaf margins, the longer costae, the longer laminal cells, and the less differentiated alar cells.

2) *Gollania neckerella* (C. Müll.) Broth. in Engler et Prantl, Nat. Pfl. 1(3): 1055, f. 755 (1908).

Specimens examined. Prov. Sichuan, Rue Er Gai, 2780 m, on decaying wood, He 30745, 30748b, 2790 m, on soil, He 30782a, on decaying wood, He 30791a; Nanping County, Jio-Zhai-Gou, 2360m, on trunk, He 30144a, 30148a, 2370 m, on trunk, He 30054, 30086. Prov. Yunnan, Gongshan County,

Nandai Village, 1900 m, on decaying wood, Wang 11481.

Distr. Continental China (Shaanxi, Sichuan, Yunnan, Hubei), Japan.

3) *Gollania ruginosa* (Mitt.) Broth. in Engler et Prantl, Nat. Pfl. 1(3): 1055 (1908).

Specimen examined. Prov. Yunnan, Gongshan County, Nandai Village, 1900 m, Wang 11479.

Distr. Northern India, continental China (Heilongjiang, Jilin, Shaanxi, Zhejiang, Yunnan), Taiwan, Soviet Far East, Korea, Japan.

4) *Gollania schensiana* Higuchi in J. Hattori Bot. Lab. 59: 29 (1985).

Specimens examined. Prov. Sichuan, Tianquan, Mts. Er Lang, 1600 m, on rock covered with thin layer of soil, He 32035, 32064, 32089, 2350 m, on soil, He 31446.

Distr. Northern India, Nepal, Bhutan, continental China (Shaanxi). New to Sichuan Province in China.

5) *Gollania turgens* (C. Müll.) Ando in Bot. Mag. Tokyo 79: 769, f. 6 (1966).

Specimens examined. Prov. Sichuan, Nanping County, Jio-Zhai-Gou, 2330 m, on trunk, He 30117f, 2360 m, He 30148a, 2910 m, on trunk, He 30363a, 30364c, 30373a, 3020 m, on decaying wood, He 30128a, 30130; Songpan County, 3250 m, on decaying wood, He 30525; Aba County, 3120–3130 m, on soil, He 30935, 31934, 3230 m, on decaying wood, He 30983, Mt. A-Yi La, 3700 m, on soil, He 30999, 31042a; Tianquan, Mts. Er Lang, 1600 m, on rock covered with thin layer of soil, He 32035; Batang, 3580 m, on rock covered with thin layer of soil, He 31530, 3610 m, on soil, He 31540; Xiangcheng County, 3820–3830 m, on rock covered with thin layer of soil, He 31749, 31768. Prov. Yunnan, Mts. Gaoligong, 1850–2100 m, on roadside bank, Wang 9204.

Distr. Nepal, continental China (Shaanxi, Gansu, Sichuan), Soviet Far East, Japan, Alaska, western Canada (cf. Higuchi 1991). New to Yunnan Province in China.

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#### Endnote

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樋口正信, 呉 鵬程: 中国西南部産ラッコゴケ属 (蘚類) と新種 *Gollania homalothecioides*

中国科学院北京植物研究所に所蔵されている中国西南部産のラッコゴケ属蘚類標本を調べた結果, 1新種を含む5種が認められた. 新種 *Gollania homalothecioides* は, 1) 茎は多くの枝を密に羽状に分枝し, 2) 茎や枝はまるく葉をつけ, 3) 茎葉, 枝葉ともに4本(稀に2本)の深い縦じわがあり, 4) 茎葉, 枝葉の翼部の細胞が良く分化する, などの点で特徴づけられる. 本種は平行した中肋, 厚い細胞壁をもった葉身細胞, しわのある葉をもつ点で, 東アジアと北米北部に分布するナガバラッコゴケ *G. turgens* に近いものであるが, ナガバラッコゴケは茎葉, 枝葉ともに先端がより

狭く尖り, 鋸歯も弱く, 全体が顕著に鎌形になり, しわも浅いことや, 葉縁基部が顕著に反曲し, 中肋と葉身細胞の長さがより長く, 翼部の細胞があまり分化しないなどの点で本種と区別される. また, 本種は外見上, とくに茎や枝がまるく葉をつける点でネパール, ブータン, 雲南, 台湾に分布する *G. cylindricarpa* に似るが, *G. cylindricarpa* は葉のしわは浅く, 葉縁は強く反曲し, 鋸歯も弱いことや中肋と葉身細胞の長さがより長く, 翼部の細胞があまり分化しないなどの点で本種と異なる.