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Leptolejeunea picta Herz., a Liverwort New to Taiwan

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ABSTRACT: *Leptolejeunea picta* Herz. is reported as a new liverwort species to Taiwan. A revised species description and illustration are provided along with information on the distribution and habitat for this species.

KEY WORDS: ***Leptolejeunea picta*, Lejeuneaceae, liverwort, new record, Taiwan.**

INTRODUCTION

There are six species of the genus *Leptolejeunea* in Taiwan (Lin, 2000; Piippo, 1990). The first author collected two specimens in Chikeshan, Yuli Township, Hualien County during in 2007. After checking references and specimens we determined that the Chikeshan collections represent *L. picta* Herz., a species new for the Taiwan bryoflora. This species is similar to *L. elliptica* (Lehm. & Lindenb.) Schiffn., the most common species of *Leptolejeunea* in Taiwan. Both are very small plants with leaves obliquely spreading, and leaf lobes ovate and apically obtuse; however, *L. picta* differs from *L. elliptica* in its dark-red ocelli scattered over the leaf lobes, lobules and underleaves. *Leptolejeunea picta* is a tropical species distributed from Indo-China, Sumatra, Borneo, New Guinea, and Ryukyu Archipelago (Mizutani, 1978). Voucher specimens for this study are deposited at the herbarium of Endemic Species Research Institute (**TAIE**).

TAXONOMIC TREATMENT

Leptolejeunea picta Herz., Flora **35**: 430 (1942).
斑點薄鱗蘚 Fig. 1

Plants small, lightly green when fresh, dark brown when dried. Shoots 0.50-0.60 mm wide, irregularly pinnately branched. Stems up to 10 mm long, 35.6-52.9 μm in diameter. Ventral merophytes of stem 2 cells wide, rhizoids numerous, fasciculate. Leaves imbricate, leaf lobe flat, ovate, 0.31-0.34 mm long, 0.16-0.17 mm wide, apex obtuse to rounded, margin entire. Lobe cells thin-walled, trigones small, marginal cells 14.9-20.2 × 10.4-14.4 μm, median cells 20.1-31.6 × 10.8-20.7 μm, basal cells slightly larger than median ones. Cuticle smooth. Oil bodies 6-15 per median cell of leaf lobe, of the compound type. Ocelli dark red when plants dried, scattered, basal ocelli 1-2, very large, 33.8-79.9 × 14.8-24.9 μm, median ocelli 16.9-27.2 × 14.1-16.9 μm. Lobule 1/3-1/2 the length of the lobe, oblong, inflated, the first tooth unicellular, obtuse, the second tooth obsolete, the hyaline papilla on the proximal side of the first tooth. Underleaves 0.76-1.16 mm long, 0.54-1.04 mm wide, distant, transversely inserted, the basal portion usually with one blunt tooth on each lateral margin, the upper margin usually composed of 2 ocelli, the lobe linear, 2- celled.

Distribution: Indo-China, Sumatra, Borneo, New Guinea, and Ryukyu Archipelago. New to Taiwan.

Specimens examined: TAIWAN, Hualien**:** Yuli, Chikeshan, near the Fute Temple, creek bank, mixed hardwood forest, epiphyllous, on leaves of fern [*Osmunda banksiifolia* (Presl) Kuhn], ca. 850 m alt., E 121°23'; N 23°23', Oct. 18, 2007, *J.D. Yang 4734g* (**TAIE**), *J.D. Yang 4735f* (**TAIE**).

Comment: Growing on the leaves of *Osmunda banksiifolia*, *L. picta* usually occupied the middle part of the pinnule and associated with many common and wild distributed epiphyllous liverworts, such as *L. elliptica*, *Cololejeunea floccosa* (Lehm. & Lindenb.) Schiffn., *C. goebelli* (Gotteshe ex Schiffn.) Schiffn., and *C. appressa* (A. Evans) Benedix. This species is easily separated from other members of the genus *Leptolejeunea* by the ocelli scattered over the leaf lobes, lobules and underleaves. The ocelli turned dark red in color when plants dried, also a useful diagnostic character.

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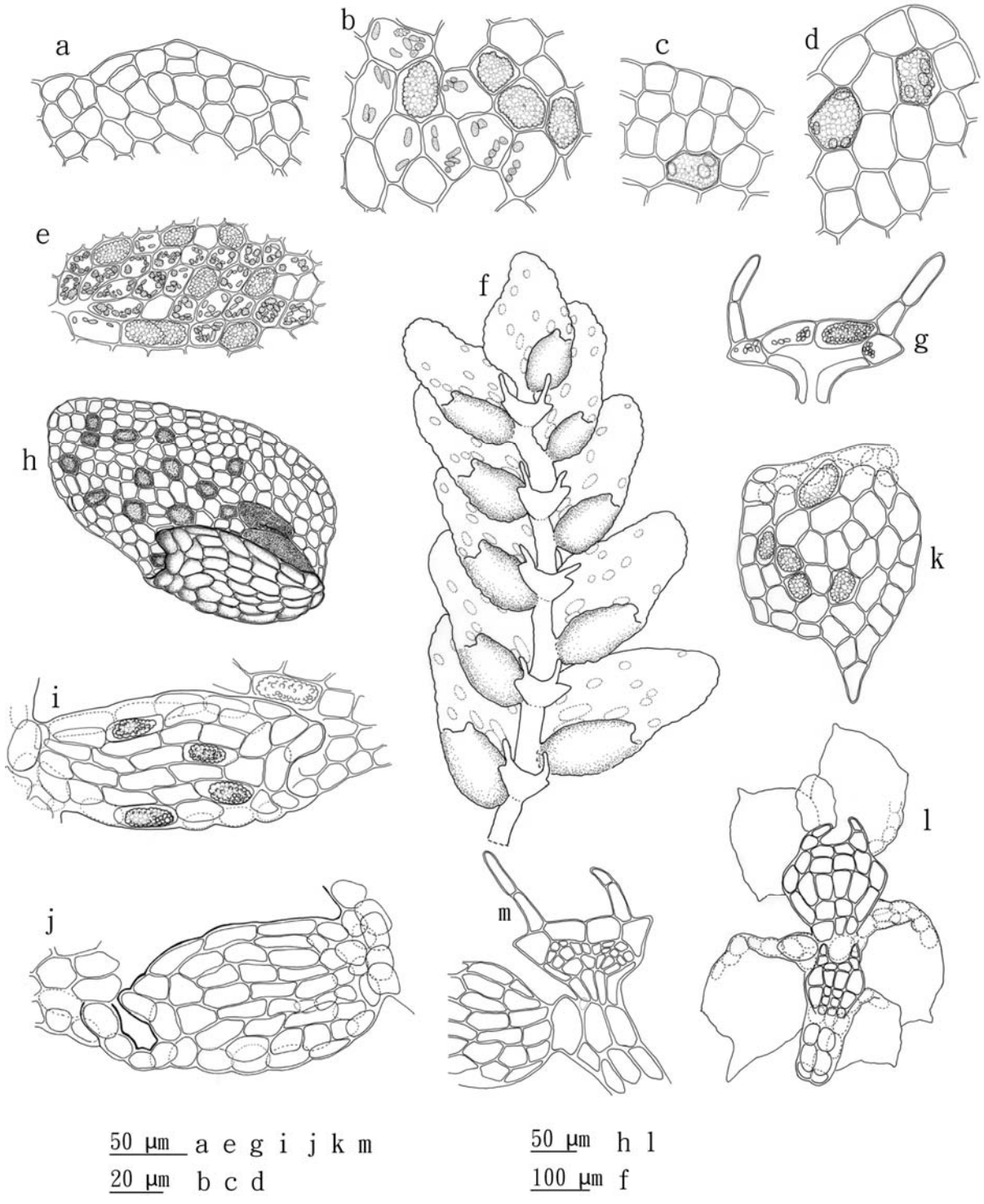


Fig. 1. *Leptolejeunea picta* Herz. a & c: Marginal cells of leaf lobes. b & e: Median cells with ocelli and oil bodies of leaf lobes. d: Apex cells of leaf lobe. f: Portion of sterile plant, ventral view. g & m: Underleaves. h: Leaf, ventral view. I & j: Leaf lobules. k: Leaf of cladium. l: Cladium, ventral view. All drawn from *J.D. Yang 4734g*.

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臺灣新紀錄蘚類－斑點薄鱗蘚

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摘　　要

本文報導新近確認的一種臺灣新紀錄蘚類－斑點薄鱗蘚(新擬)。文中附有形態描述、植物線條圖、棲地、分布及引證標本等。

關鍵詞：斑點薄鱗蘚、細鱗蘚科、蘚類、新紀錄、臺灣。

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