

# NEW ADDITIONS TO THE FLORA OF TAIWAN

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[Abstract] Three species are mentioned in this paper. One is a new species, *Rubus liui*, and the others, *Euonymus oxyphyllus* and *Halodule uninervis*, are new records for the flora of Taiwan. A Chinese name, a description, and a detailed line drawing are given for each species.

## 紀 台 灣 之 新 植 物

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【提要】本文所列之台灣三種新植物。一為薔薇科之新種：柳氏懸鈎子，乃為感謝柳樞先生對植物分類和生態之貢獻而命名。其餘兩種新紀錄植物為垂絲衛矛和單脈二葉蕨，分屬於衛矛科和角果蕨科。並將三種植物之描述及繪圖附於後。

### INTRODUCTION

During the past several years, many specimens of vascular plants have been added to the Herbarium of Taiwan Forestry Research Institute (TAIF). While working on these materials, we have met a few plants which are new to the flora of this island. Of the species described below, one is a new species of Rosaceae and the others are new records of Celastraceae and Zannichelliaceae.

### NEWLY FOUND SPECIES

1 *Rubus liui* Y. P. Yang et S. Y. Lü, *sp. nov.* (pl. 1 柳氏懸鈎子)

*Rubus Kawakamii* Hayata affinis, inflorescentis axillaribus vel terminalibus diversis.

Frutex; foliis simplicibus, crasse chartaceis, longe lanceolatis, 6.5~13cm longis, 1.5~2.5 cm latis, apice acuminatis, basi obtusis, margine dentatis, infra tomentosa. Inflorescentis axillaribus vel terminalibus, racemis 7~12-floriferis; pedicellis 1~1.9 cm longis; sepalis 0.6~1.3 cm longis, 0.3~0.6 cm latis; petalis 0.6~0.9 cm longis, 0.4~0.6 cm latis.

Scandent shrubs; branches with short retrose prickles, brownish-green, thinly floccose-tomentose when young. Leaves simple, petiolate, thickly chartaceous, finely and remotely serrate, long-lanceolate, blades 8~11 cm long, 1.5~2.2 cm wide, acuminate at apex, rounded at base, densely brownish-tomentulose beneath; midrib impressed above, distinctly elevated and prickled beneath; petioles 1.5~2 cm long, few-prickled; stipules linear, lacinate, glabrous, villose along the margins. Racemes axillary and terminal, with 7~12

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flowers; peduncles velutinous; pedicels 1~1.9 cm long, velutinous, fine-spined; calyx triangular, cuspidate at apex, velutinous, glandular; petals obovate, pink, mucronate at apex; stamens numerous. Fruits reddish, with persistent styles, 8~10 mm in diameter.

Endemic, in forests of 1400~1600 m elevation.

Hsinchu: Yuan-young lake, leg. *Lü* 4246 (holotype, TAIF).

This species is closely related to *R. Kawakamii* Hayata but mainly differs from its axillary and terminal inflorescences.

Our sincere thanks are here expressed to Mr. Valiant Tsing Liu, Senior Specialist of TFRI, for his generosity in giving us the chance of investigating the plant community of a *Chamaecyparis* forest. The name, *liui*, is in his honor. We also express our gratitude to Dr. C. E. DeVol and Prof. J. C. Liao, National Taiwan University, for their critical reading of the manuscript. In particular, we wish to thank Mr. M. T. Kao, National Taiwan University, for his many valuable suggestions.

2 *Euonymus oxyphyllus* Miq., Ann. Mus. Bot. Lugd. Bat. 2:86. 1865; Ohwi, Fl. Jap. 605. 1965. (pl.2 垂絲衛矛)

Large deciduous shrubs. Leaves opposite, ovate or obovate, membranous, glabrous, 6~10 cm long, 3~5 cm wide, acuminate, serrulate or entire. Inflorescences with loose flowers. Flowers 4~5 merous, light green or white; calyx green, depressed-rounded, entire; petals orbicular, 2~3 mm. long, 2~3 mm wide. Fruits globose, smooth, 1.1~1.4 cm in diameter.

This species was found on mountain ridges at about 1200 meter elevation at both the northern and southern part of Taiwan. It is also found in Japan, Korea and mainland China.

Taoyuan: Fu-hsin, *Lü* & *Tang* 2009 & 4042. Miaoli: Yang-mei shan, *Lü* 4584. Taitung: Tu-lan, *Lü* 3932.

We wish to express our cordial thanks to Mr. Ding Hou of Rijksherbarium, Leiden, for his identification of this species and sending us a drawing of the syntype of *Euonymus oxyphyllus*.

3 *Halodule uninervis* (Forsk.) Aschers. in Boiss. Fl. Orient. 5:24. 1882; Hartog in Blumea 12: 297. 1964. (pl.3 單脈二葉藻)

Submersed marine plants with creeping rhizomes. Leaves 2.5~12 cm long, 1~2 mm wide, with conspicuous midrib; apex trifid, the lateral teeth longer than the median; margins entire.

Plants were only found in south Taiwan. It grows along with *Thalassia hemprichii* at the collected place. The related species, *H. pinifolia*, was reported from south Taiwan in 1932. These can be easily distinguished by the character of their leaf-tips. A key to the species is given as follows:

1 Leaf-tip truncate or dentate, with the median teeth longer than the

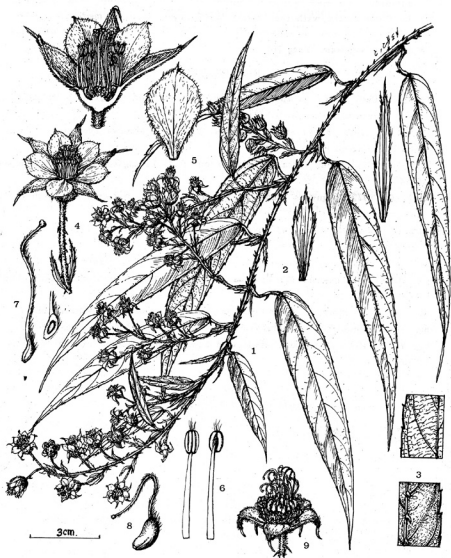


Plate 1. *Rubus liui* Yang et Lü

1. Plant 2. Stipules 3. Margin of leaf 4. Flower 5. Petal  
6. Stamen 7. Pistil 8. Achene 9. Aggregate fruit