試驗短報

臺灣新歸化植物—樹蕃茄(茄科)

曾彦學1 劉靜榆2 劉思謙3 歐辰雄4

(收件日期:民國 97 年 3 月 25 日、接受日期:民國 97 年 6 月 8 日)

【摘要】樹蕃茄(茄科)原產熱帶美洲,早期曾被引進臺灣栽培作為水果,最近被發現 馴化於台中縣和平鄉大雪山林道橫流附近海拔 800~1,000 m 一帶山區,為臺灣新歸化植物,本屬亦為臺灣新歸化屬。本報告描述其形態特徵、地理分布及生育地環境並提供彩色圖片與繪圖。

【關鍵詞】樹蕃茄、歸化植物、茄科、臺灣、分類

CYPHOMANDRA BETACEA (CAV.) SENDT. (SOLANACEAE), A NEWLY NATURALIZED PLANT IN TAIWAN

Yen-Hsueh Tseng¹ Ching-Yu Liou² Sy-Chian Liu³ Chern-Hsiung Ou⁴

(Received: March 25, 2008; Accepted: June 8, 2008)

[Abstract] A newly naturalized plant, *Cyphomandra betacea* (Cav.) Sendt., was previously introduced and cultivated in Taiwan as a fruit species. Its escaped and naturalized population has been found recently in central Taiwan. This plant represents a new record of this genus and species for Taiwan. The Neotropical Solanaceae species, native to the Andes mountains of Peru, Chile, Ecuador and Bolivia, is described and illustrated in the report.

[Key words] Cyphomandra betacea, naturalized plant, Solanaceae, Taiwan, taxonomy

I. INTRODUCTION

There are about 35 species in this genus, *Cyphomandra* Sendt., native to countries of the Americas from Mexico southwards to

¹ 國立中興大學森林學系助理教授。

Assistant Professor, Department of Forestry, NCHU, Taichung, Taiwan.

² 行政院農業委員會特有生物研究保育中心棲地生態組助理研究員。

Assistant Researcher, Department of Habitat and Ecology, Endemic Species Research Institute, Nantou, Taiwan.

³ 國立中興大學生命科學系講師,通訊作者

 $Lecturer,\, Department\,\, of\,\, Live\,\, Science,\, NCHU,\, Taichung,\, Taiwan,\, Corresponding\,\, Author.$

⁴ 國立中興大學森林學系兼任教授。

Adjunct Professor, Department of Forestry, NCHU, Taichung, Taiwan.

Northern Argentina; several new species have been described in recent decades (Bohs, 2001; Bohs, 1988). The best known species in the genus is the widely cultivated C. betacea (Cav.) Sendt., but a number of the others are also cultivated as garden plants because of their attractive flowers or fruits. Severals also have traditional uses in the regions where they are native (Bohs, 1989). In addition, it is grown as a commercial crop for international export in New Zealand and Portugal (Bohs, 1994). None species of Cyphomandra was previously recorded in Flora of Taiwan (D'Arcy & Peng, 1998; Huang, 2003). Nevertheless, in early times C. betacea (Cav.) Sendt. was introduced to Taiwan for edible fruit. In our recent investigation at central Taiwan, this Neotropical species, C. betacea (Cav.) Sendt., was discovered the wild population. In recent years, there are a lot of Solanaceae plants have been naturalized or recorded in Taiwan (Wang, 2003; Hsu and Tseng, 2003; Hsu et al., 2007). Cyphomandra Sendt. (Solanaceae) is a newly additional one genus to Taiwan.

II. TAXONOMIC TREATMENT

Cyphomandra betacea (Cav.) Sendt. in Flora 28: 172, t. 1. 1845.

樹蕃茄 Fig. 1. & 2.

Small trees or shrubs, to 3 m. Stem with densely puberulent. Leaves simple, alternate; petiole, 3-7 cm, puberulent; blades

ovate-cordate, 5-18 cm long, 5-10 cm wide, acuminate at apex, base often cordate, the margins entire or undulate, veins pinnate, the upper surface puberulent, the lower surface puberulent. Inflorecence 2-3 scorpioid cymes, subaxillary; peduncle 1-2 cm long, puberulent; calyx campanulate, ca. 1cm in diam., lobes ovate, ca. 3mm long, glabrescent; corolla rotate, pink-white, 5-lobed, glabrous, lanceolate, ca. 2cm in diam.; stamen 5, connivent around style, filaments short, free, 1 mm long, anthers oblong, 6 mm long. Ovary ovate, glabrous, 2-locular, style erect, glabrous. Berry yellow-brown, ovate, glabrous, 5-7 cm long, ca. 3 cm in diam. Seeds compressed, 1-2 mm in diam. Fl. and fr. nearly throughout the year.

Specimens examined: Taiwan. Taichung county: Hoping Hsiang (和平鄉), Tahsuehshan logging road near Hengliu (横流), elev. ca. 800~1,000 m, on the edge of forest. 27 Jul. 2003, Tseng s.n. (TCF); same loc., elev. ca. 800 m. 3 Feb. 2004, Tseng s.n. (TCF); same loc., elev. ca. 1,000 m.10 Jun. 2005, Ou *et al.* 13452 (TCF); same loc., elev. ca. 1,000 m. 1 Mar. 2008, Tseng 4177(TCF).

Distribution: *C. betacea* (Cav.) Sendt. is native to the Andes of Peru, Chile, Ecuador and Bolivia. It is cultivated in Argentina, Australia, Brazil, Colombia, Kenya, the United States, Venezuela, Portugal and Indonesia where it is known as "Tree tomato" or "Dutch eggplant". In Taiwan, it's wild

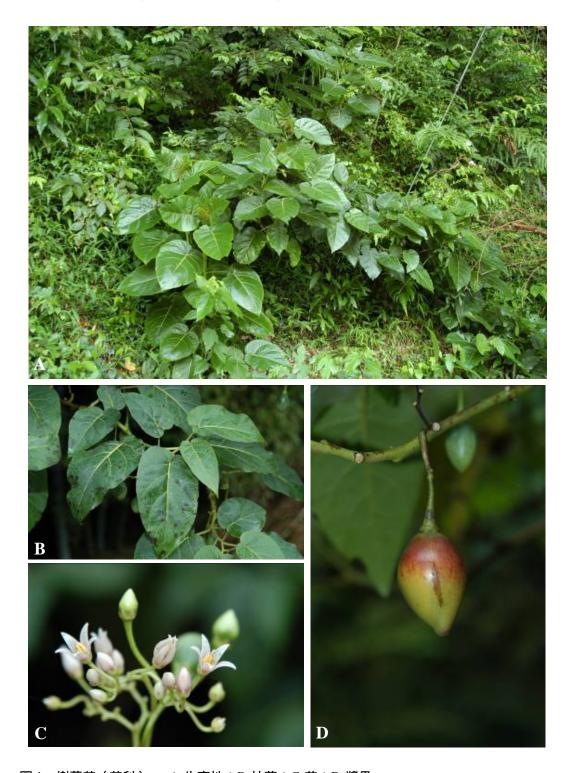


圖 1 樹蕃茄 (茄科) ─ A.生育地; B.枝葉; C.花; D.漿果

Fig. 1 *Cyphomandra betacea* (Cav.) Sendt. (Solanaceae) A: Habitat. B: Branches. C: Flowers. D: Fruits.

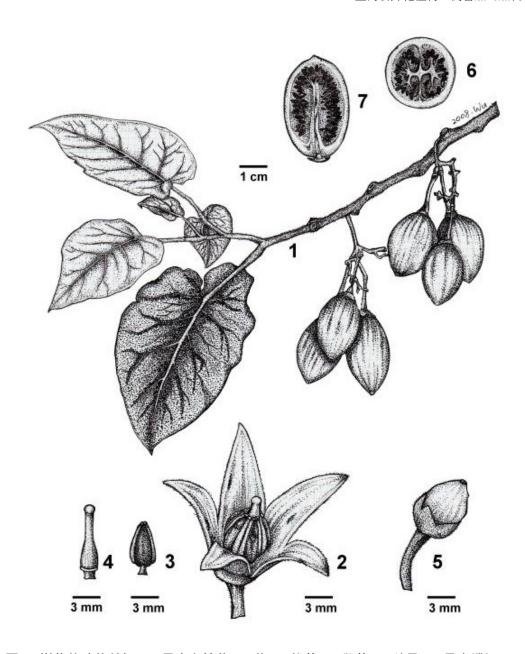


圖2 樹蕃茄(茄科)─1.果實與枝葉;2.花;3.雄蕊;4.雌蕊;5.幼果;6.果實縱切面;7. 果實橫切面

Fig. 2 *Cyphomandra betacea* (Cav.) Sendt. (Solanaceae) 1: Branches with fruits. 2: Flower. 3: Anther. 4: Pistil. 5: Young fruit. 6: Cross section of fruit. 7: Longitudinal section of fruit.

population was found in the Taichung county (Fig.3). It occurs on the edge of forest at an elevation of $800 \sim 1,000$ m.

IV. Literature cited

Bohs, L. (1988) Four new species of *Cy*phomandra (Solanaceae) from South America. Systematic Botany 13: 265-275.Bohs, L. (1989) Ethnobotany of the genus *Cyphomandra* (Solanaceae).Economic Botany 43: 143-163.

Bohs, L. (1994) *Cyphomandra* (Solanaceae). Flora Neotropica 63: 1-175.

Bohs, L. (2001) A revision of *Solanum* section Cyphomandropsis (Solanaceae). Systematic Botany Monographs Vol 61. Pages 1-83.

D'Arcy, W. G. and Ching-I Peng (1998)

Solanaceae. In: Huang, T.C. *et al.*(eds.)

Flora of Taiwan, 2nd ed. 4: 549-581. Editorial Committee, Dept. Bot., NTU, Taipei,

Taiwan.

Hsu,T.-W. and Y.-H. Tseng (2003) So-

lanum elaeagnifolium Cav. (Solanaceae):a noxious weed newly naturalized to Taiwan. Endemic Species Res. 5: 49-51.

Hsu, T.-W., C.-I Peng, J.-J. Peng and T.-Y. Chiang. (2007) Confirmation of the Distribution of *Solanum miyakojimense* Yamazaki & Takushi (Solanaceae) in Taiwan. Taiwania 52(2): 190-193.

Huang, T. C. (editor-in-chief) (2003)
Flora of Taiwan, 2nd ed. 6: 98. Editorial
Committee, Dept. Bot., NTU, Taipei,
Taiwan.

Wang, C.-M. (2003) Solanum mauritianum Scop. (Solanaceae), a newly naturalized weed plant in Taiwan. Coll. & Res. 16: 67-70.

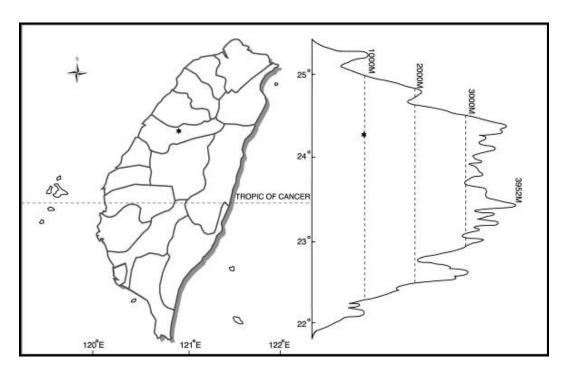


圖 3 樹蕃茄(茄科)在台灣的分布圖

Fig. 3 The distribution of Cyphomandra betacea (Cav.) Sendt. in Taiwan.