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## A New Record for the Flora of Turkey *Physalis angulata* L. (Solanaceae)

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**Abstract :** A new species, *Physalis angulata* L. (Solanaceae) is reported for the first time for the flora of Turkey. The specimens were collected from cotton, corn and soybean fields in the Ceyhan, Karataş, Kozan, Yumurtalık (C5) and Osmaniye (C6) districts of Adana, and the Tarsus district of İçel (C5).

**Key Words:** Flora, Turkey, *Physalis angulata* L., Solanaceae.

### Türkiye Florası İçin Yeni Bir Kayıt: *Physalis angulata* L. (Solanaceae).

**Özet :** Türkiye florası için yeni bir kayıt olan *Physalis angulata* L. (Solanaceae) ilk kez rapor edilmektedir. Örnekler Adana (C5): Ceyhan, Karataş, Kozan, Yumurtalık, Osmaniye (C6) ve İçel (C5): Tarsus'dan pamuk, mısır ve soya tarlalarından toplanmıştır.

**Anahtar Sözcükler:** Flora, Türkiye, *Physalis angulata*, Solanaceae.

### Introduction

A specimen which belong to the Solanaceae family was found during weed surveys in summer crops in the Çukurova region of Turkey (Figure 1). After checking the Flora of Turkey, we concluded that the specimen was *Physalis angulata* L., previously unknown in Turkey (1,2). The materials were collected in summer crop fields in the Çukurova region. The specimens were collected from the Ceyhan, Karataş, Kozan, Kadirli, Osmaniye and Yumurtalık districts of Adana, and the Tarsus district of İçel. Although *P. angulata* was not recorded in earlier weed surveys in the Çukurova region (3), we found that it is one of the highest-distribution weeds found in summer crops (4).

### SOLANACEAE

*Physalis angulata* L., Sp. Pl. 183. (1753). ( Figure 2, 3)

Annual herbs with tap-roots. Stems 10-50 (-80) cm tall, erect, branched from base or above, sometimes decumbent, glabrous or with a few short antrorsely adpressed hairs especially on younger parts. Leaves variable, principal blades (3-) 4-10 X 3.5-8 cm, ovate to ovate lanceolate or broadly to narrowly elliptic, sometimes oblong, margins deeply and irregularly toothed or entire, glabrous or rarely with sparsely adpressed hairs, petioles 1-4 (-8) cm long. Pedicels 0.5-4 cm, 2-4.5 cm in fruit. Calyx 3-5 mm long, lobes 1-3 mm. Fruiting calyx 20-35 mm long, inflated, 10 angled

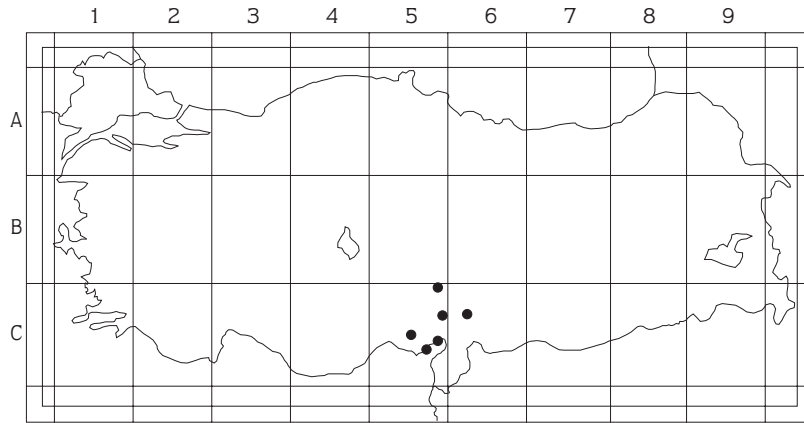


Figure 1. The distribution of *P.angulata* in Turkey.



Figure 2. *P. angulata* habit.



Figure 3. *P. angulata* inflorescence.

or 10 ribbed. Corolla yellowish, 4-10 (-12) mm long unspotted or with indistinct spots. Anthers bluish or violet, 2-2.5 mm; filaments slender, 3-4 mm. Berry 10-12 mm in diameter, seeds yellowish, flattened, ovate or broadly elliptic, subsmooth. Flowering time June-October in Turkey.

**Specimens seen:** C5 Adana: Ceyhan, cotton fields, 30 m, 06.VIII.1996, Oya Gönen 1064; Karataş, cotton fields, 20 m, 08.VIII.1996, Oya Gönen, 1065; C6 Adana: Osmaniye, soybean fields, 40 m, 25.VIII.1996, Oya Gönen, 1066; C5 İçel: Tarsus, cotton fields, 30 m, 27.VIII.1996, Oya Gönen 1067.

*P. angulata* distributed naturally in central and south America and India as well as some states of the USA (5).

*P. angulata* was identified as *P. lanceifolia* in 1951 (6). According to Gleason, *P. pendula* and *P. angulata*

were identified as two different species in 1958 (7). Three varieties of *P. angulata* were recorded by Waterfall (8) in 1970: var. *angulata*, var. *lanceifolia* Nees and var. *pendula* Rydb. *P. pendula* was recorded as the var. *angulata* of the eastern and southeast U.S. in 1986 (9). Finally *P. lanceifolia* and *P. pendula* were recorded as synonyms of *P. angulata* in 1994 (10).

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