

A new species of *Dianthus* (Caryophyllaceae) from Salt Lake, Central Anatolia, Turkey

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Dianthus aydogduii Y. Menemen & E. Hamzaoglu from Salt Lake, Central Anatolia, Turkey, is described as a species new to science and illustrated.

Key words: *Caryophyllaceae*, *Dianthus*, taxonomy

There have been few vegetation studies that have included the Salt Lake region of Turkey (Birand 1961, Yurdakulol & Ercoşkun 1990). In a visit to this area for vegetation studies some very unusual specimens of *Dianthus* were collected by Ergin Hamzaoglu and Mustafa Aydogdu. Research in the Herbaria of Hacettepe University (HUB), Gazi University (GAZI) and Kırıkkale University (ADO) showed that these specimens are representatives of a species new to science (Fig. 1). Thirty-four specimens of *D. aydogduii* were examined for this study which were compared with the closely related species *D. cyri* Fisch. & Mey. and *D. tripunctatus* Sibth. & Sm. Representative specimens of *D. cyri* (nine specimens belonged to two localities) and *D. tripunctatus* (eight specimens belonged to seven localities) are cited below. The measurements were compared with Reeve (1967) and a distribution map (Fig. 2) was prepared according to the localities we examined and found specimens and the citations of Reeve (1967) and Dalcı (1986a, 1986b).

Dianthus aydogduii Y. Menemen & E. Hamzaoglu *sp. nova* (Fig. 1)

Planta annua. Folia linearia, margines ciliati. Ab Dianthus cyri et D. tripunctatus vero statura minore 3–15 cm, bracteolis brevioris quam tubis calycibus 8–10 mm longis differt. Marginibus calycum inconspicuis, 0.5 mm latis.

TYPE: Turkey. B4 Aksaray: Tuz Gölü (Salt Lake), Ulukışla'dan Tuz Gölü'ne doğru kuzeye gidiş, 950 m, 24.VI.1999 E. Hamzaoglu & M. Aydogdu 2432 (holotype ADO; isotypes HUB, GAZI, ANK and Hrb. Yıldırımli)

Annual, 3–15 cm. Lower cauline leaves 1–1.5 mm wide, linear, apex subulate, margins ciliate. Inflorescence freely branched, pedicels 5–15 mm. Bracteoles 4, bases adpressed or more or less spreading, shorter than calyx tube. Calyx verruculose, 8–10 × 2.5–4 mm, narrowed slightly above, tube nervose; teeth 3–5 mm, lanceolate, nervose, green-tipped, margins membranous inconspicuous, not more than 0.5 mm wide. Petals

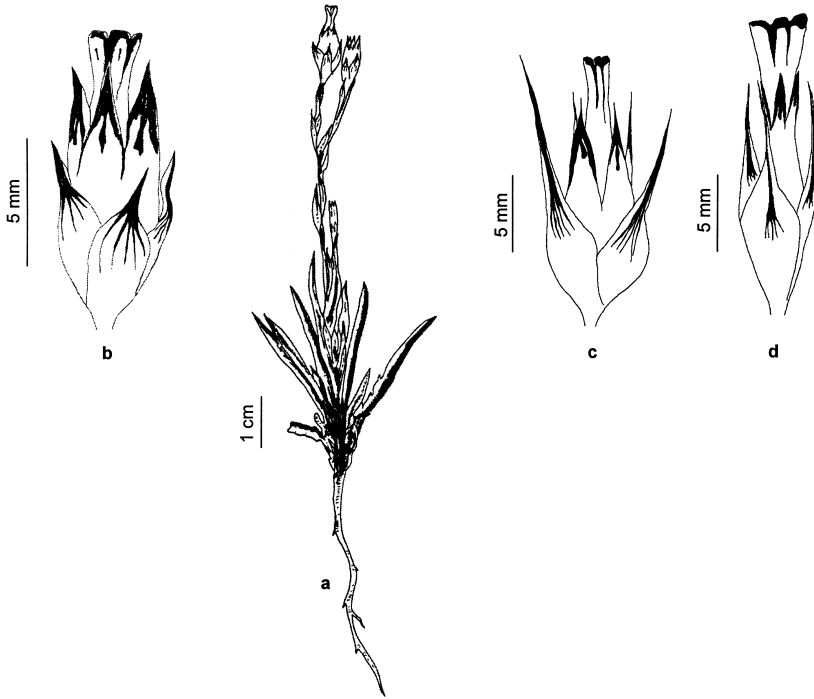


Fig. 1. — A: *Dianthus aydogdunii* Y. Menemen & E. Hamzaoglu (holotype). — B, C, D: Bracteoles and calyx tubes of *D. aydogdunii*, *D. cyri* Fisch. & Mey. and *D. tripunctatus* Sibth. & Sm. respectively.

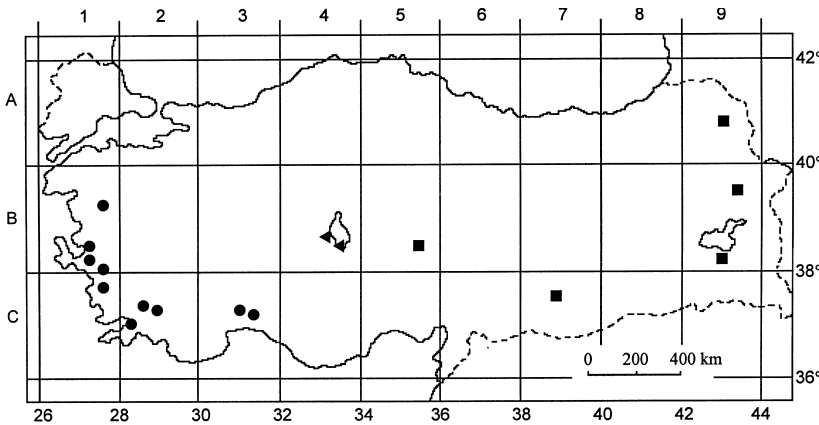


Fig. 2. Distribution of *Dianthus aydogdunii* Y. Menemen & E. Hamzaoglu (▲), *D. cyri* Fisch. & Mey. (■), and *D. tripunctatus* Sibth. & Sm. (●) in Turkey.

pink, dentate. Flowering in June–July, at salty places, ca. 950 m.

ADDITIONAL SPECIMEN EXAMINED (paratype): Turkey. B4 Aksaray: Tuz Gölü (Salt Lake), Gölyazı-Eskil arası, 950 m, 24.VI.1999 E. Hamzaoglu & M. Aydogdu 2444 (ADO).

Dianthus aydogdunii is very closely allied to *D. cyri* and *D. tripunctatus*. However, there are very clear differences between the species. *Dianthus aydogdunii* is a plant growing up to 15 cm with a single stem, whereas the others grow 12 cm to 50 cm with many branches (Reeve 1967).

Dianthus aydogdunii also differs from the other species in having bracteoles shorter than calyx tube, which is 8–10 mm long with teeth apex acuminate. *Dianthus tripunctatus* has a calyx margin up to 2 mm wide, but in *D. cyri* and *D. aydogdunii* it is 0.5 mm wide (Table 1).

REPRESENTATIVE SPECIMENS EXAMINED. — *Dianthus aydogdunii*: **Turkey.** B4 Aksaray: Tuz Gölü (Salt Lake), Ulukışla'dan Tuz Gölü'ne doğru kuzeye gidiş, 950 m, 1999 E. Hamzaoglu & M. Aydogdu 2432 (ADO, HUB, GAZI, ANK and Hrb. Yıldırım); B4 Aksaray: Tuz Gölü (Salt Lake), Gölyazı-Eskil arası, 950 m, 1999 E. Hamzaoglu &

Table 1. Diagnostic characters of *Dianthus aydogduii* Y. Menemen & E. Hamzaoglu from two closely related taxa, *D. cyri* Fisch. & Mey. and *D. tripunctatus* Sibth. & Sm.

Characters	<i>D. aydogduii</i>	<i>D. cyri</i>	<i>D. tripunctatus</i>
Height of plant	3–15 cm	12–40 cm	20–50 cm
Stem	Single stemmed	Many branched	Many branched
Bracteoles	Shorter than calyx tube	Equalling or longer than calyx tube	Equalling calyx tube
Bracteole teeth	1–3 mm	7–12 mm	3–8 mm
Pedicels	5–15 mm	15–35 mm	40–50 mm
Apex of calyx tube	Not swollen	Not swollen	Swollen
Apex of calyx teeth	Acuminate	Aristate	Acute, sometimes mucronate
Calyx	8–10 mm	11–15 mm	18–20 mm
Calyx margin	Not more than 0.5 mm	Not more than 0.5 mm	Up to 2 mm
Number of flowers	1–4	5–22	4–7
Ecology	Salty soils	Deep alluvial soils (Dalcı 1986b)	Cliffs, road sides (Reeve 1967)
Altitude	950 m	1 200 m	1–120 m

M. Aydogdu 2444 (ADO). — *Dianthus cyri*: **Turkey**. A9 Kars: Kağızman, Aras Vadisi 1 200 m, 1979 *O. Güneş* (HUB); B5 Kayseri: Yahyalı, Sultan Sazlığı çevresi, Tuzla Mevkii, 1982 *N. Demirkuş 1920* (HUB). Additional specimens cited in Reeve (1967): B9 Muş, Malazgirt, 1916 *Schischkin*; C7: Urfa to Siverek *Kotschy 60*. It is also reported that this species grows in NW Iran, Syrian Desert, Afghanistan and Arabia. — *Dianthus tripunctatus*: **Turkey**. C2 Muğla, Ortaca Dalyan Tepe arası, 10–20 m., yol kenarı, 1991 *A. Güner 9501* (GAZI, HUB); C3 Antalya, Kumluca Adrasan Köyü kuzeyi, Serpantin Kızılcım Ormanı, 1–120 m, 1979 *H. Peşmen & A. Güner 4385* (HUB); Antalya, Finike Demre arası, Dalyan, 1979 *Ö. Seçmen 2103* (EGE); Aydın, Samsun Dağı, 1965 *C. Regel & H. Peşmen* (EGE); Aydın, Bafa gölü kenarı, güney yamacı, 50 m, 1977 *A. Yınıl* (EGE); İzmir, Gümüldür, Sultan Oteli civarı, 10 m, 1970, *S. Oflas & M. Çetindağ* (EGE); İzmir, Karaburun, Balıklı ova çıkışı, Gerence, 50 m, 1980 *L. Behat 400* (EGE). Additional specimens cited in Reeve (1967): B1 Balıkesir: Burhaniye to Gömeç, 10 m, *H. Demiriz 3066*; B1 İzmir: İzmir, *Bornm. 1906: 9102*; C1 İzmir: Efesus to Söke, 70 m, *Davis D. 34920*; Aydın: Aydın to Milas, S shore of Bafa G., 30 m, *Hub-Mor 16692*; C2 Muğla: Fethiye, 1946 *Heilbronn*; Antalya: bay W of Kale, s.l., *Hub-Mor 9669*; C3 Antalya: Antalya to Korkuteli, *Reese*. Islands: Samos, *Gathorne-Hardy 514*; Rhodos, *Rech. 7420a*.

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