

## A NEW AMYGDALUS FROM ISRAEL

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**ABSTRACT.** *Amygdalus ramonensis* Danin, sp. nov., (Rosaceae) is described from the Negev of Israel. It is related to *A. communis* L. from which it differs principally in its smaller, glabrous, ovate fruits, subspinescent branches and apiculate leaves. Notes on habitat and population size are given.

### *Amygdalus ramonensis* Danin, sp. nov., Fig. 1.

Ab *A. communis* L. foliis apiculatis (non acuminatis), ramulis subspinescentibus (non inermibus), drupis ovatis (non oblique ellipsoideis nec elongato-ellipsoideis),  $2.5 \times 1.7$  cm (non  $5 \times 3$  cm), obtusis (non acutis), glabris (non velutinis) differt.

Arbor usque ad 6 m alta subspinescens, brachyblastis brevibus numerosis. Ramuli glabri, primum virides, demum brunnei, teretes. Rami grisei. Folia anguste-ovata, ovato-lanceolata vel ovata, usque ad  $1.5-5 \times 0.5-1.7$  cm, apiculata, basi angustata, glabra, margine serrulata et glandulosa. Petioli 6-12 mm longi, glanduli 0-2. Pedicelli usque 2-3 mm longi. Flores majusculi usque ad 4 cm diametro. Petala alba vel rosea, obtusa, glabra, 1-2 cm longa. Stamina 27-35. Drupa ovoidea, compressa, glabra, atrovirens,  $25 \times 17-18 \times 13-14$  mm. Putamina sparse foveolata, carinata, interdum cum 4-5 sulcis longis inconspicuis secus carinam. Fl. Feb.-Mart.

Typus. Israel, Central Negev Highlands, Nahal Eliav, 4 km SW of Har Ramon,  $34^{\circ}39'E/30^{\circ}38'N$ , banks of wadi with loessial alluvium, 16 iv 1979, *Danin* (holo. HUJ; iso. E, K).

ISRAEL. Negev, Wadi Horasha, 16 xii 1965, *D'Angelis* (HUJ); Nahal Elot, 25 ii 1967, *Danin* (HUJ); Nahal Eliav, type locality, 16 ii 1980, *Danin* (HUJ).

Unarmed to subspinescent trees, to 6 m, short thorny shoots numerous; young shoots glabrous, terete, green at first, becoming brown later. Branches grey. Leaves apiculate, narrowly ovate to ovate-lanceolate, rarely ovate; blade  $1.5-5 \times 0.5-1.7$  cm, dentate-serrate, glandular on margin, entirely glabrous; petioles 6-12 mm, glands 0-2. Pedicels 2-3 mm. Flowers large, to 4 cm diam. Petals white or pink, obtuse, 1-2 cm long. Stamens 27-35. Drupe ovoid, compressed,  $25 \times 17-18 \times 13-14$  mm, dark green, entirely glabrous; stone pitted, sometimes with 4-5 inconspicuous grooves near the keel. Fl. February-March.

In crevices of smooth-faced outcrops of hard limestone and in wadis draining slopes with such rock outcrops. Endemic to the Central Negev Highlands, 700-900 m.

This species was recorded from the Negev Highlands by D. Zohary & D'Angelis (1952) as *A. communis*, by Danin (1967) and by M. Zohary (1972, p. 22) as *A. korschinskii* (Hand.-Mazz.) Bornm. However, *A.*

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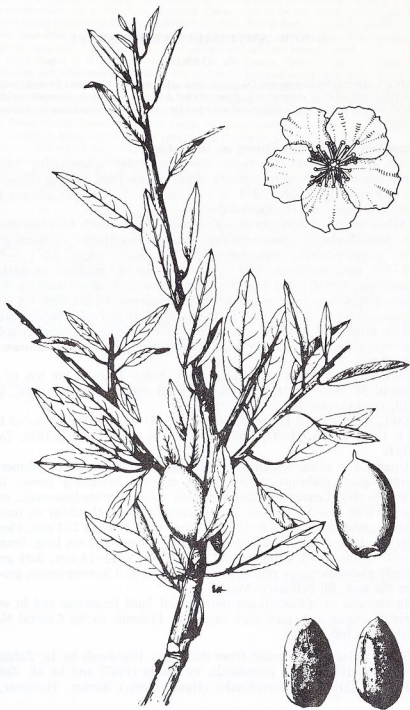


FIG. 1. *Amygdalus ramonensis* Danin; fruiting branch, flower, drupe and stones  $\times$  approx. 1.

*ramonensis* is a tree with a glabrous drupe whereas *A. korschinskii* is a shrub with a hairy drupe.

*A. ramonensis* grows in a steppe area (with mean annual rainfall of 80–100 mm) where *Artemisia herba-alba* is dominant (Danin *et al.*, 1975). It is confined to habitats where additional water is accumulated through run-off. Such habitats are, (a) the crevices of smooth-faced limestone outcrops (from which there is much run-off), (b) the foot of these outcrops, and (c) wadis draining their slopes. In these habitats there is an approximate total population of 100–200 specimens of *A. ramonensis*. Specimens growing in the crevice habitat are of shrub size whereas those in wadis are much larger—the same size variation is shown by *Pistacia atlantica* Desf. which grows in the same habitats (Danin & Orshan, 1970).

The specimens in rock outcrops belong to the *Verthemia iphionoides*-*Pistacia atlantica* association. This association also includes rare desert plants such as the endemic *Origanum ramonense* Danin and *Ferula negevensis* Zoh. as well as the Mediterranean relicts *Sternbergia clusiana* (Ker-Gawler) Spreng., *Prasium majus* L. and many others (Danin, 1972; Danin *et al.*, 1975).

*A. ramonensis* trees in wadis may reach a height of 3 to 6 m. However, since the trunks are cut by bedouin for fuel and the branches are grazed by goats and camels, many specimens look like shrubs rather than trees.

#### ACKNOWLEDGMENTS

Thanks are due to Prof. E. Kollmann for reading and correcting the Latin diagnosis and to Mrs E. Huber for the drawing.

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