

NOVELTIES IN ALCEA (MALVACEAE) FROM IRAN

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Alcea semnanica and *Alcea assadii* are described as new species from Semnan and Azerbaijan provinces. *A. semnanica* differs from *A. chrysantha* in the petal color, shape and indumentum of carpel. *A. assadii* differs from *A. excubita* in the petal color, indumentum of carpel and inflorescence type, and with *A. flavovirens* in the leaf shape, flower size and inflorescence type.

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مطالبی نواز جنس *Alcea* در ایران

منیژه پاکروان

گونه‌های *Alcea semnanica* و *Alcea assadii* به عنوان گونه جدید معرفی و مقایسه می‌شوند. گونه *Alcea semnanica* با *A. chrysantha* مقایسه می‌شود و اختلاف آنها در رنگ گل، شکل و کرک برچه است. گونه *A. assadii* با *A. excubita* و *A. flavovirens* مقایسه می‌شود. اختلاف آن با *A. excubita* در رنگ گل و کرک برچه و گل آذین است و با *A. flavovirens* در شکل برگ، اندازه گل و نوع گل آذین است.

Introduction

Alcea is a mainly south west Asian genus with about 70 species. About 36 species has been found in Iran (Ghahreman et al. 2001, Pakravan & Ghahreman 2002 and 2003; Pakravan 2003). Following a detailed examination of plant in their habitats and of preserved specimens in the herbarium of Wien (W) and herbarium of the Research Institute of Forests and Rangelands (TARI) and those obtained on loan from other herbaria (BM, E, HUI, P, JE, WU, IRAN, TUH) two older specimens are discovered that represent a still undescribed species, which are here described as new to science.

Alcea semnanica Pakravan, sp. nov. -Fig. 1.

Typus. Iran: Semnan, Damghan, Cheshmeh-Ali, 1500m, 9. 8. 1983, V. Mozaffarian 45550 (holotypus TARI); the same Mozaffarian 45549.

Planta biennis vel perennis, 60-70 cm fere alta. Caulis glaber. Stipulae 3-4 fidae. Folia 3-5 nervia, basalia rotundata, integra; petioli usque ad 20-30 cm longi; folia caulina superiora ovato-cordata vel obsolete trilobata, basi truncata, omnia margine dentata. Flores singuli. Involucrum ½ longitudinis calyce attingens, in lacinias 6-7 acute triangulares, pilis longe et dense stellatis obsitis. Calyx 18- 20 mm longus, usque ad medium divisum, corolla duplo ad triplo brevior, pilis dense stellatis obsitis. Calyces lacunae striatae. Petala alba vel rosea, basin versus flavida, calyce 2.5-3 plo

longiora. Carpella suborbicularia, lateribus dense pilosa, alis angustissimis, 0.75-1 mm latis, radialiter rugosis, sulco dorsali lato basi tota latitudine patule pilosa.

Biennial or perennial, 60- 70 cm high. Stem smooth. Stipules 3-4 lobed, 5 mm long. Leaves with petiole about 30 cm long in basal leaves, 5-8 cm in stem leaves; lamina in basal leaves suborbicular, in stem leaves entire or obscurely 3-5 lobed, at the margin dentate, above glabrous with scattered stellate hairs; lower surface with denser stellate hairs, especially on veins. Flowers solitary, in somewhat remotely flowered inflorescence. Pedicel 10 mm long, up to 20 mm in fruiting stage, covered with ± dense stellate hairs. Epicalyx 10 mm long, of 5 triangular segments, united to the middle, 2 times shorter than the calyx, with very dense stellate hairs. Calyx 18-20 mm long, divided to the middle, 2.5-3 times shorter than the corolla, covered with dense stellate hairs, with prominent nerves. Corolla white or pink. Fruit 14-15 mm broad. Carpel 5-5.5 mm long, winged, channeled on the back and hairy along the channel, on the side around the notch convex, glabrous and smooth in the remaining part, radially wrinkled and covered with stellate and simple pilose hairs; wing 0.75-1 mm broad.

The new species is similar to *Alcea chrysantha* (Sam.) Zohary, but differs in having white or pink

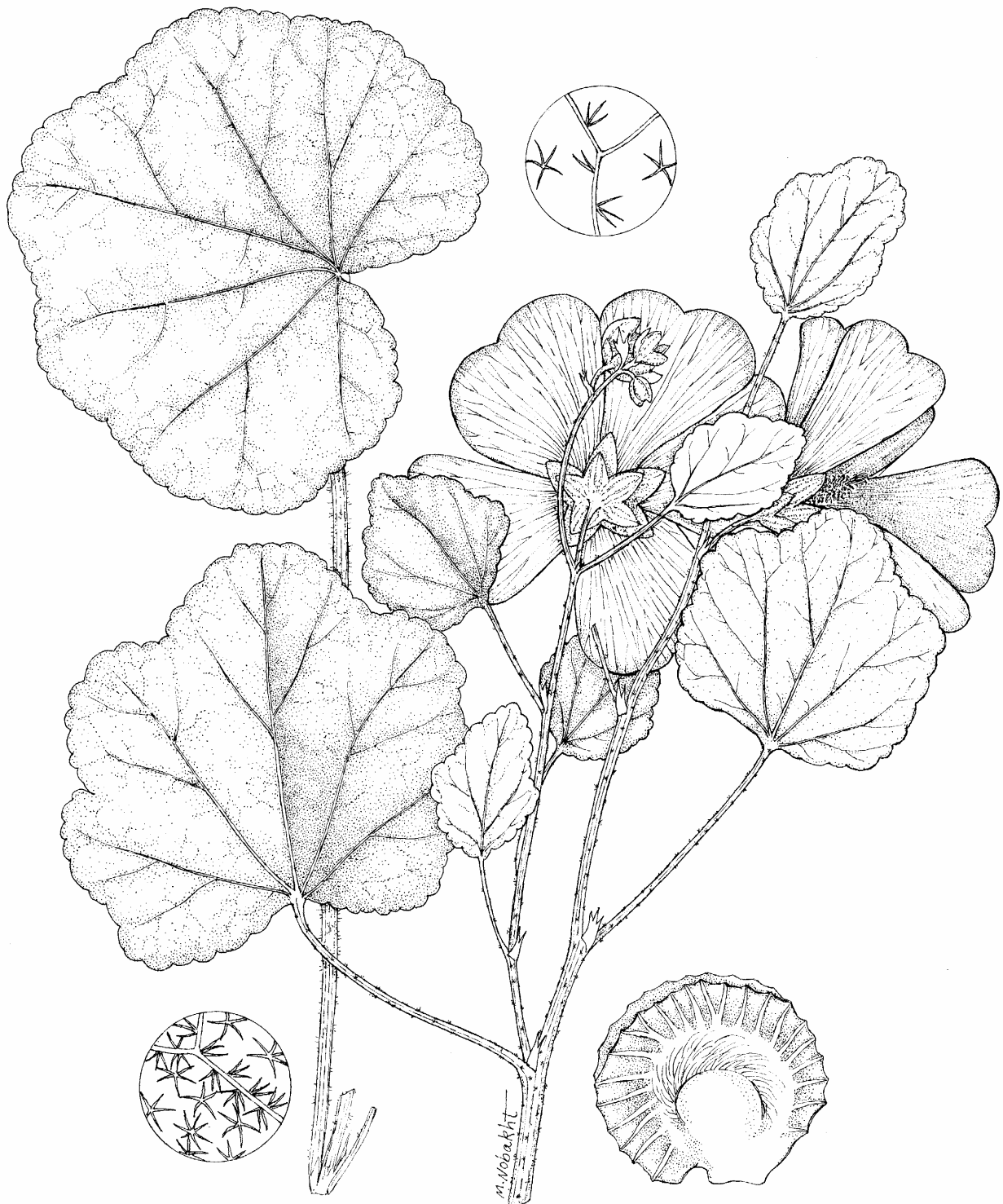


Fig. 1. *Alcea semnanica* (x0.57); carpel (x5).

corolla (yellow in *A. chrysantha*) and hairy, winged carpel (glabrous and wingless in *A. chrysantha*).

***Alcea assadii* Pakravan, sp. nov. –Fig. 2.**

Typus. Iran: Azerbaijan, 7 km from Kaleybar to Aslandoos, 500 m, 12. 9. 1981, V. Mozaffarian & A. Mohamadi 37715 (holotypus TARI).

Planta perennis, humilis, plerumque ± 50 (65) cm alta, ramosa. Caulis pilis laxae stellatis tecto. Stipulae bifidae. Folia longe petiolata, 3.5-5.5 cm longa; lamina 5-lobata, 2-4 cm lata, usque ad 2/3 palmatipartita, laciniis oblongo-spathulatis, supra laxius, subtus densius pilis stellatis vestita. Inflorescentia thyrsoida. Pedunculus 2 cm altus. Flores 2-4 ni cymus. Involucrum ½ longitudinis calyces attingens, in laciniis 5-8 acutas triangulares, pilis brevissimis appressis stellatim dispositis tectis, apices versus glabrescentes divisum. Calyx 10 mm longus, striatus, quam involucrum densius pilosus. Petala 20 mm longa, flava, in sicco virescentia. Carpella 5 mm longa, laterius dense pilosa, stellata; alis subtilissime plicatis.

Perennial, short, about 50(-65) cm high. Stem relatively slender, mostly branched in lower part, with scattered fugacious stellate hairs. Stipules 2- parted. Leaves with small blade, 3.5-5.5 cm long, 2-4 cm broad, palmately 5-lobed; lobes oblong-spathulate, two- third of blade length, at the margin dentate, on the upper surface with scattered stellate hairs, more densely hairy beneath; petiole 3.5-5 cm long. Inflorescence a scattered thyrs. Flowers 2-4 in lateral cymes. Pedicel 2 cm long. Epicalyx of 5-8 triangular-acute segments, almost united to the middle, about half length of calyx, covered with small appressed stellate hairs, more scattered or glabrous in the apex. Calyx 10 mm long, with distinguished nerves, covered with ± dense stellate hairs. Corolla yellow, sometimes faintly greenish when drying. Carpels approximately 20-25, winged, 5 mm

long and 5 mm broad, deeply channeled; wings glabrous, radially wrinkled, thin; sides around notch convex and glabrous; remaining part with dense stellate hairs.

The new species is very closely related to *Alcea excubita* Iljin, but differs in having yellow petals (white in *A. excubita*) and stellate hairs in lateral side of carpel (glabrous in *A. excubita*), also it is similar to *A. flavovirens* (Boiss. et Buhse) Iljin, but differs from it in having small leaves and flowers (larger in *A. flavovirens*), more shallow leaf lobes (leaves cleft down to base in *A. flavovirens*), and thyrsoid inflorescence (racem in *A. flavovirens*).

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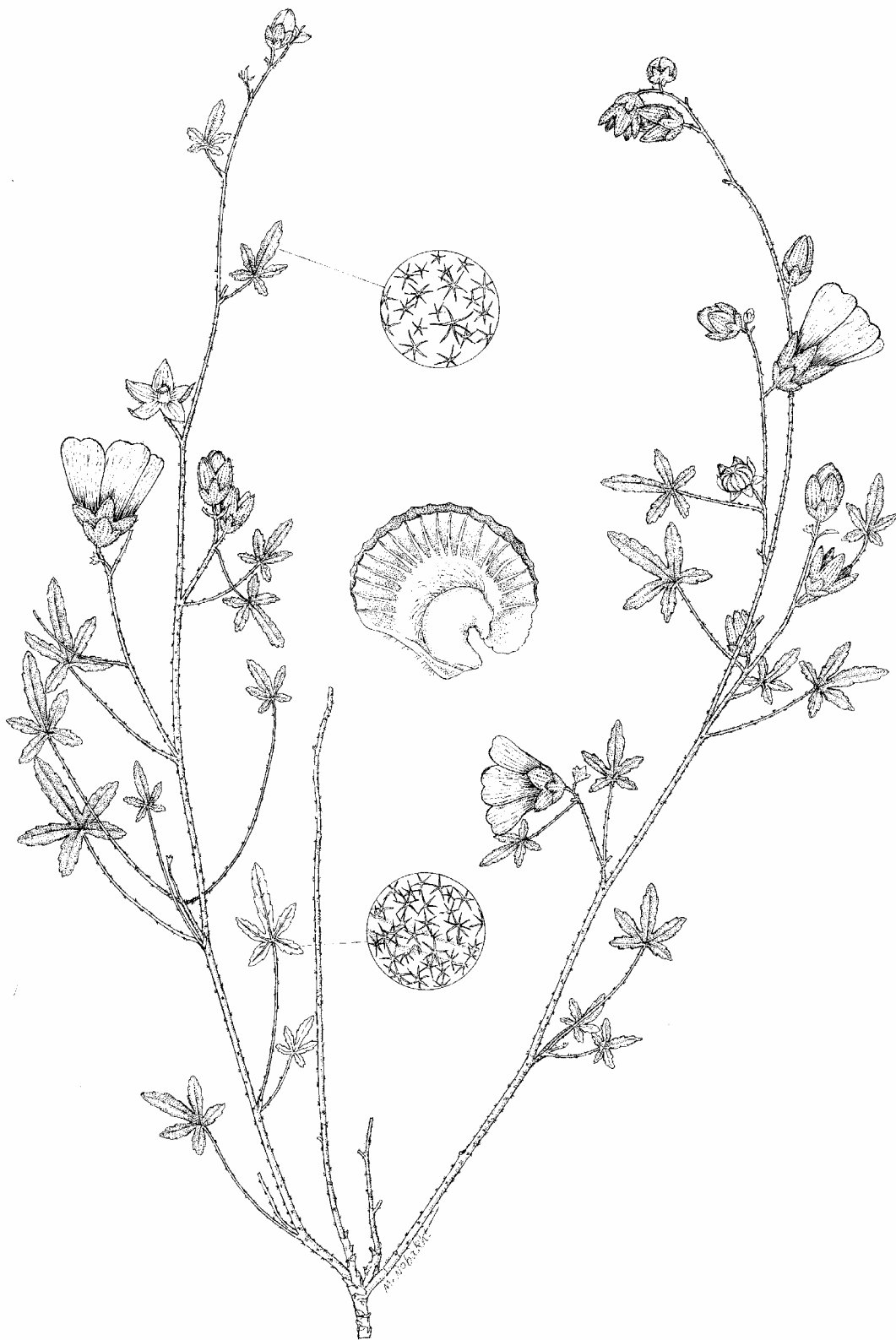


Fig. 2. *Alcea assadii* (x 0.5); carpel (x5).