

ACANTHOLIMON HORMOZGANENSE AND A. ZAEIFII (PLUMBAGINACEAE), TWO NEW SPECIES FROM IRAN

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Acantholimon hormozganense is described as a new species from S. Iran. It is related to *A. aspadanum* Bunge, a species distributed in Central part of Iran. *A. zaeifii* is another new species again from S. of Iran. This species seems to be most closely related to *A. eschkerense* Boiss. distributed at the western part of the distribution of the new species.

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دو گونه جدید *Acantholimon hormozganense* و *A. zaeifii* از ایران

مصطفی اسدی

گونه *Acantholimon hormozganense* از جنوب ایران به عنوان گونه‌ای جدید نامگذاری و معرفی می‌شود. این گونه با گونه *A. aspadanum* که در مرکز ایران انتشار دارد، قرابت نزدیکی دارد. همچنین گونه *A. zaeifii* به عنوان گونه‌ای جدید از جنوب ایران معرفی و نامگذاری می‌شود. این گونه با *A. eschkerence* نزدیکی دارد که انتشار آن در سمت غرب گونه جدید است.

Introduction

The author is preparing the family *Plumbaginaceae* for the Flora of Iran (Assadi 1989). During the studies several changes needed to be done on the taxonomy of the genus *Acantholimon*. In this paper two new species are described.

Acantholimon hormozganense Assadi, sp. nov.

Planta caespitosa, glauca, puberulenta, calcareo-punctata. Folia homomorpha, usque ad 30 mm longa et 1 mm lata, acicularia, canaliculata, in sectione transversali triangularia vel semicircularia, basin versus dilatata et ciliata. Caules florifer 20-40 mm longi (inflorescentia incluso). Folia caulina 1.6 mm longa, subulata, membranacea. Inflorescentia ramosa, 20-25 mm longa; rami 2-4, 15 mm longi, spiciformes; spiculae ca. 8 mm longae, densae, uniflorae. Bractea ca. 5 mm longa, ovata, acuta, mucronata, brunnea, margine late membranacea. Bracteolae 4 mm longae, oblongo-ovatae, apice rotundatae. Calyx 8 mm longus; limbus ca. 4 mm longus, infundibulariformis, albus, undulatus, nervis marginem non attingentes. Petala 6 mm longa, spathulata, alba, rotundata. Stamina petalis breviora; antherae 1.5 mm longae; filamenta applanta. Ovarium fusiforme, longitudine sulcatum. Stigma staminem superans, capitata. *Typus*. Hormozgan, Bandar-Abbas, 22 km N. of Ghotabad, S. side of the tunnel, 1200-1250 m, limestone rocks and stony slopes, 9.4.1975, P. Wendelbo & H. Foroughi 15776 (holotypus TARI).

Plant cushion-shaped, glaucous, pubescent, with calcareous dots. Leaves monomorphic, up to 30 mm long and 1 mm broad, spiny, canaliculate, in transverse section triangular or semicircular, towards the base broadened and ciliate. Flowering stems 20-40 mm long (inflorescence included): leaves 1, 6 mm long, subulate, membranous. Inflorescence

branched, 20-25 mm long; branches 2-4, 15 mm long, spike-like; spikelets ca. 8 mm long, dense, 1-flowered. Bract ca. 5 mm long, ovate, acute, mucronate, brown, broadly membranous at the margin. Bracteoles 4 mm long, oblong-ovate, rounded at the apex. Calyx 8 mm long; limb ca. 4 mm long, funnel-shaped, white, undulate at the apex, with nerves not reaching to the summit of the limb. Petals 6 mm long, spathulate, white, rounded at the apex. Stamens shorter than the petals; anthers 1.5 mm long; filaments flat. Ovary fusiform, longitudinally sulcate. Stigma overtopping the stamens, capitate.

The new species is obviously related to *A. aspadanum*. It however differs from it by the following characters: leaves semicylindrical-canaliculate (not flat), triangular at cross section. Bracts brown in the middle (not pale purple), calyx shorter ca. 6.5 mm long (not 8), nerves of the calyx green (not purple). Moreover, the new species is confined to S. Iran, while *A. aspadanum* is a Central Iranian endemic (Rechinger & Schiman-Czeika 1974).

Acantholimon zaeifii, Assadi, sp. nov.

Planta caespitosa, glauca, calyce et rachide excepto glabra, dense calcareo-punctata. Folia vernalia 15-25 mm longa, 1-1.5 mm lata, acicularia, plana vel triangularia, persistentia, patula vel reflexa; folia aestivalia 30 mm longa, 1 mm lata, acicularia, triangularia, basin versus dilatata. Caules florifer 30-45 mm longi; folia caulina saepe 1, interdum usque ad 4, 4.5-7 mm longa, ovato-subulata, membranacea. Inflorescentia spicata, raro singula, irramosa, 10-25 mm longa; spiculae 1-7, 6.5-9 mm longae, densae, uniflorae. Bractea 4.5-7 mm longa, ovata vel ovato-lanceolata, acuta, mucronata, margine late membranacea. Bracteolae 6-7 mm longae, ellipticae, apice rotundatae, mucronatae, membranaceae, cum nervis viridibus. Calyx 7-8 mm longus; limbus ca. 2.5 mm longus, infundibulariformis, albus,

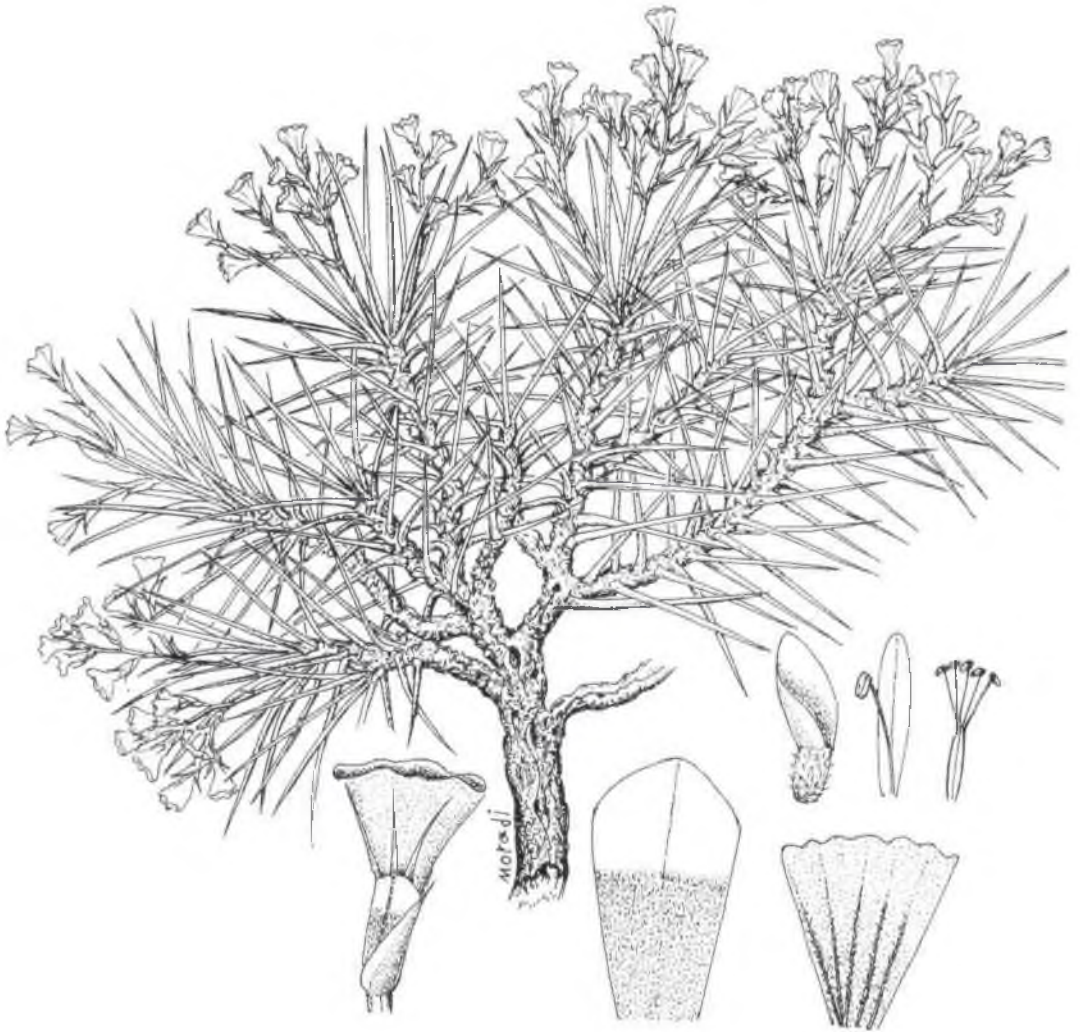


Fig.1 *Acantholimon hormozganense* ($\times 0.7$); spikelet and calyx ($\times 3.5$); bract and bracteole ($\times 8.5$); petal and gynoecium ($\times 4.2$).

undulatus, nervis marginem attingentes. Petala 7-9 mm longa, oblanceolato-spathulata, alba, rotundata. Stamina petalis vix breviora; antherae 1.2 mm longae; filamenta applanata. Ovarium fusiforme, longitudine sulcatum. Stigmata staminem aequantes, capitata.

Typus. Kerman, S. slope of Kuh-e Khabr, ca. 3000 m, 8.6.1977, rocky S. slopes of *Juniperus excelsa* woodland, M. Assadi & A. G. Miller 25195 (holotypus TARI). –Paratypus. Kerman, Baft, Khabr mountain, above Dahaneh Dadlahi, 3500 m, Pourmirzai & Saber 83213; Lalezar to Rabor, S. M. Mirtazhaddini 83219. Hormozgan, Bokhon, Tashgerd and Boneh mountains, 1800-2700 m, *Amygdalus* forest, V. Mozaffarian 54414; NE. of Bandar-Abbas, Kushah, Bagh-Chenar, M. Zaeifi & Bahamanzadeh 1284.

Plant cushion-shaped, grey-glaucous, covered by calcareous dots, except tube of the calyx and rachis of inflorescence glabrous. Leaves of the former years pale brown in the beginning dark brown later; spring leaves 15-25 mm long and 1-1.5 mm broad, spiny, flat or triangular at cross section, persistent, reflexed; summer leaves up to 30 mm long and 1 mm broad, spiny, triangular, broadly membranous margined at the base. Stem 30-45 mm long. Stem leaves often 1, nearly up to 4, 4.5-7 mm long, ovate-subulate, membranous. Inflorescence spike-like or rarely single, unbranched, 10-25 mm long, equaling or somewhat longer than the tuft; spikelet 1-7, 6.5-9 mm long, rather dense, 1-flowered. Bract 4.5-7 mm long, ovate, or ovate-lanceolate, acute, mucronate, membranous at the margin. Bracteoles 6-7 mm long, elliptic, at the apex

rounded, mucronate, membranous with a green nerve at the middle. Calyx 7-8 mm long; tube with scattered hairs; limb funnel-shaped, white with purple nerves reaching to the summit of the limb, undulate at the tip. Petals 7-9 mm long, oblanceolate-spathulate, white, rounded at the apex. Stamens somewhat shorter than the petals; anthers 1.2 mm long; filaments flat. Ovary fusiform, longitudinally sulcate. Stigmata equaling the anthers, capitata.

The new species seems to be most closely related to *A. eschkerense* distributed mainly at the western part of the distribution of the new species (Rechinger & Schiman-Czeika 1974). It however differs from *A. eschkerence* by having a dense spike, i.e. internodes of the rachis shorter than the bracteoles (not lax with internodes longer than the bracteoles), spikelets 1-7 (not 5-12), nerves of the calyx reaching at most to the margin of the limb (not exceeding).

The species epithet is named in the honor of Mr. Mahmoud Zaeifi, a friend and colleague in Bandarabbas.

Acknowledgment

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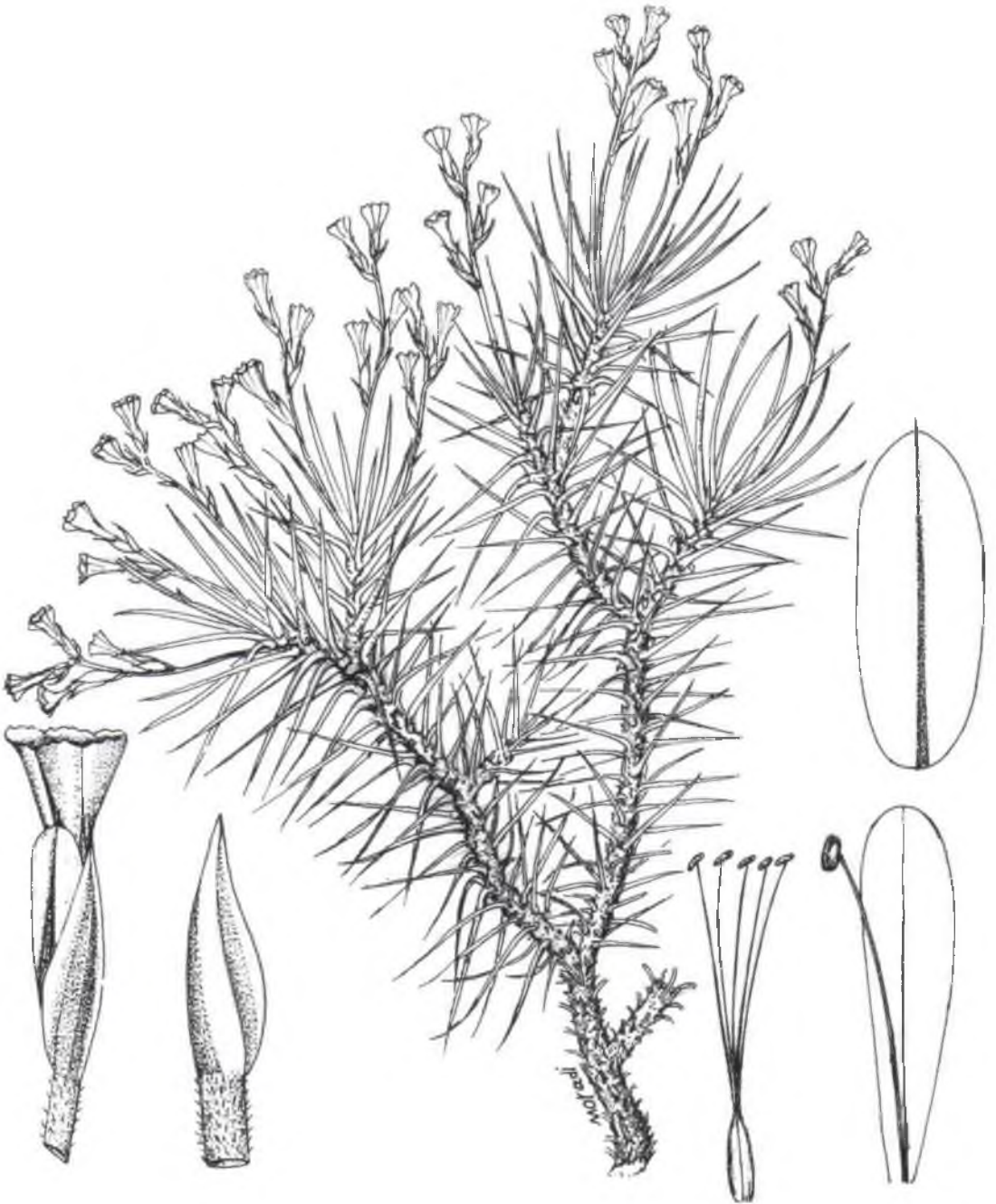


Fig. 2. *Acantholimon zaeifii* ($\times 0.8$); spikelet ($\times 8$); bract and bracteole ($\times 4.8$); petal and gynoecium ($\times 5.2$).