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THREE NEW *PAPAVER* SPECIES  
(*PAPAVERACEAE*) FROM ARMENIA

According to extant treatments, the genus *Papaver* L. is represented in Armenia with 6 or 7 sections. Taxonomic studies and recent field work results in the recognition of three species new to science, two (*P. gabrielianae*, *P. roseolum*) belonging to *P. sect. Rhoeadium* Spach and one (*P. sjunicicum*) to *P. sect. Meconidium* Spach. Descriptions, illustrations and distribution map are provided for them, and their affinities with other species are discussed.

Աղաբաբյան Մ. Վ., Ֆրագման-Սափիր Օ. *Papaver* ցեղի (*Papaveraceae*) երեք նոր տեսակ հայաստանից: *Papaver* L. ցեղը հայաստանում ներկայացված է 6 կամ 7 սեկցիաներով: Ներքարիումային նյութերի փազանդման և ուսումնասիրության և վերջերս կատարված դաշտային հետազոտությունների արդյունքում հայտնաբերվել են զիպոլային համար 3 նոր տեսակ, որոնցից երկուսը (*P. gabrielianae*, *P. roseolum*) պարկանում են *Rhoeadium* Spach, մեկը՝ (*P. sjunicicum*) *Meconidium* Spach սեկցիային: Բերվում են այս տեսակների նկարագրությունները, նկարները, փարածվածության բարդեցները և քննարկումներ այս տեսակների հետ ազգակցական կապերի մասին:

Ագաբաբյան Մ. Վ., Ֆրագման-Սափիր Օ. Три новых вида *Papaver* (*Papaveraceae*) из Армении. В соответствии с имеющимися образцами, род *Papaver* L. представлен в Армении 6 или 7 секциями. В результате таксономических исследований гербарного материала и недавних полевых исследований было выявлено 3 новых для науки вида, 2 из которых (*P. gabrielianae*, *P. roseolum*) принадлежат к секции *Rhoeadium* Spach рода *Papaver*, а один (*P. sjunicicum*) к секции *Meconidium* Spach. Приводятся описания, иллюстрации и карта распространения этих видов, обсуждается их родство с другими видами.

Introduction

The present paper forms a part of critical taxonomic revision of Armenian *Papaveraceae*. Of the 11 sections currently recognised in *Papaver* L., 6 or 7, depending on the treatment followed (Fedde, 1909; Popov, 1937; Grossheim, 1950; Takhtajan, 1954; Kadereit, 1988a, 1988b, 1997; Mikheev, 1993), are present in Armenia. During recent field work, some species were found to be new to science, two of which were first collected in 2006 and are considered as stenendemics of South Armenia (Zangezur or Sjunjac ashkhar). The third, endemic to Central Armenia (Erevan, Sevan) has been frequently collected but was so far misidentified as *P. dubium* L. The study of the latter's protologue and comparison with European specimens, including type material, has convincingly demonstrated the distinctness of the Armenian plants.

*Papaver gabrielianae* M. V. Agab., sp. nov. – Holotype: Armenia, Sjunik, m. Mets Ishkhanasar, road from lake Sevlich, 2680 m, 39°36'N/46°16'E, 6.7.2006, Agababian & al. (ERE; isotypes: B, PAL). Fig. 1.

Herba annua ramosa, glauca, ascendens, 45–80 cm alta. Caulis parce patule setulosus. Folia inferiora pinnato-pinnatifida sequentia pinnatifida. Pedicelli graciles flexuosi 20–35 cm longi, sparse appresse setulosi. Alabastrum globosobovoideum apice subdidymum sepalis leviter cucullatis. Petala 27–35 mm longa et 32–45 mm lata, rubra vel punicea ad basin atro-maculata, macula ipsa in centro stigmatate phalaeniformi rubro notata. Stamina filamenta filiformia, atrovioleacea, antherae 1 mm longae oblongo-cylindricae violaceae, polline viridi. Capsula 9–13 mm longa et 9–13 mm lata, subglobosa, glabra, glauca, basi in stipitem perbreve contracta, disco stigmatico sinuoso-marginato,

8–10-radiato, maturitate subapplanato coronata. Semina 0.7 mm diametro, brunnea.

Species e *Papaveris* sectione *Rhoeadio*, *P. rhoeadi* et *P. commutato* affinis. Prius a nostro differt pedicellis patule setosis, ambo caule erecto, macula petalorum in ambis (dum adsit) concolor nec in media parte rubro-notata.

Flowering and fruiting in July–August.

Habitat: meadows, alpine-subalpine belts, 2500–2700 m a. s. l.

Distribution: Zangezur floristic region. Endemic.

From *P. commutato*, which the new species resembles most closely, it differs by its ascending habit, with stem bases spreading close to the ground and a distinctive red mark inside the black blotch at the base of the petals. It is also of note that the new species occurs in alpine to subalpine meadows, whereas *P. commutato* grows characteristically in fields of semi-deserts of the arid zone, ascending to the lower mountain belt.

*Papaver roseolum* M. V. Agab. & Fragman, sp. nov. – Holotype: Armenia, Avan, dry stony slopes. 25.5.2006, Gambarian (ERE; isotypes: HUI, PAL). Fig. 2.

Herba annua simplex rarius ramosa, erecta, (15) 30–40 (70) cm alta. Caulis setis longis patulis hispidus. Folia bipinnatisecta, dimorpha, basalina in segmenta lata obtusiuscula, caetera in lacinias lineares acutas, albo-cartilagineo-apiculatas et in setam robustam desinentes fissa. Pedicelli 25–35 cm longi, infra patule superne appresse setosi. Alabastrum elongato-ovoideum, apicem versus obtuse conicum, tenuiter patule setosum. Petala 20–24 mm longa et 22–28 lata, obovato-cuneata, pallide rosea, in parte basali insigniter atromaculata. Stamina filamenta filiformia, atrovioleacea, antherae 1 mm longae oblongo-cylindricae violaceae, polline griseo-virello. Capsula 0.8–20 mm longa, oblongo-clavata, apicem versus nullo modo angustata, inconspicue costata, glabra, disco stigmatico 6–9-radiato maturitate depresso-applanato coronata. Semina 0.9 mm diametro, brunnea.

Species e *Papaveris* sectione *Rhoeadio*, *P. dubio* et *P. purpureomarginato* affinis. Alterum differt a nostro sepalis purpureo-marginatis (ut nomen revocat), capsula in utroque apicem versus distincte angustata, petala rite aurantiaca nec rosea, macula dum adsit multo minora.

Flowering in April–May, fruiting in May–June.

Habitat: Roadsides, agricultural land and fallow fields (Erevan), in *Artemisia fragrans* semi-desert (Avan, Zvartnoz), on grassy slopes and in meadows (Sevan); 800–2100 m a. s. l.

Distribution: Central Armenia in Erevan and Sevan floristic regions. Endemic.

This taxon has long been known as *P. dubium*, having been frequently collected. Several botanists have noted its distinctness from the European species. The second author has submitted Armenian material to the monographer Kadereit, who tentatively included it in the variable *P. dubium*, whose Turkish forms are similar in leaf dissection and hairiness. However during the OPTIMA expedition to Armenia in 2002, F. M. Raimondo, being familiar with *P. dubium* – a common and easy recognizable species in Italy – was puzzled by the apparent misuse of this name by Armenian botanists. Apart from leaf traits, our search in Floras of neighbouring areas did not yield any description



Fig. 1. *Papaver gabrielianae* (photos Mariam Aghababian)



Fig. 2. *Papaver roseolum* (photos Ori Fragman-Sapir)



Fig. 3. *Papaver sjunicicum* (photo Hrachja Kazarian)

that might conceivably apply to the present species, which we therefore believe to be previously unnamed.

***Papaver sjunicicum* M. V. Agab., sp. nov. – Holotype:** Armenia, Sjunik, m. Ukhtasar, slopes near lac Ckhuk, 3500 m 39°40'N/46°03'E, 26.7.2006, Kazarian (ERE; isotype: PAL). Fig. 3.

Herba biennis vel potius perennans monocarpica, glauca, a basi pluricaulis, 5–25 cm alta. Caules erecti glabri vel parcissime setosi, prope basin iteratim ramosi. Folia margine undulata, praesertim ad costam et margines dissite setosa, inferiora pinnatifida petiolata, caulina sessilia integra lanceolata. Pedicelli 10–15 cm longi graciles erecti, glabri vel subglabri. Alabastra subglobosa apice rotundata sparse setosa. Petala 26–28 cm longa et 16–18 lata, pulchre aurantiaca, basi minute albo-maculata. Staminum filamenta filiformia flava, antherae 1.5 mm longae oblongo-cylindricae luteae, polline flavo. Capsula 6–11 mm longa et 4–8 mm lata, crasse ellipsoidea vel obovoidea, latere bullata, costis distinctis notata, apice dentibus brevibus valvatim aperiens, disco stigmatico parvo stellatim lobato, 5–7 radiato, in radiis flavo-brunnescente caeterum violaceo coronata. Semina 0.5 mm diametro, dilute brunnea.

Species e *Papaveris* sectione *Meconidio*, *P. armeniaco* et *P. zangezurico* affinis. Prius differt caule singulo in parte superiore ramoso, capsulis fusiformibus subminoribus; alterum discrepat capsulis duplo longioribus (17–22 mm longis) et multo angustioribus (2–3 mm crassis).

Flowering and fruiting in July–August.

Habitat: Alpine belt, growing on rocks, screes and in meadows; 3200 – 3500 m a.s.l.

Distribution: Zangezur floristic region. Endemic.

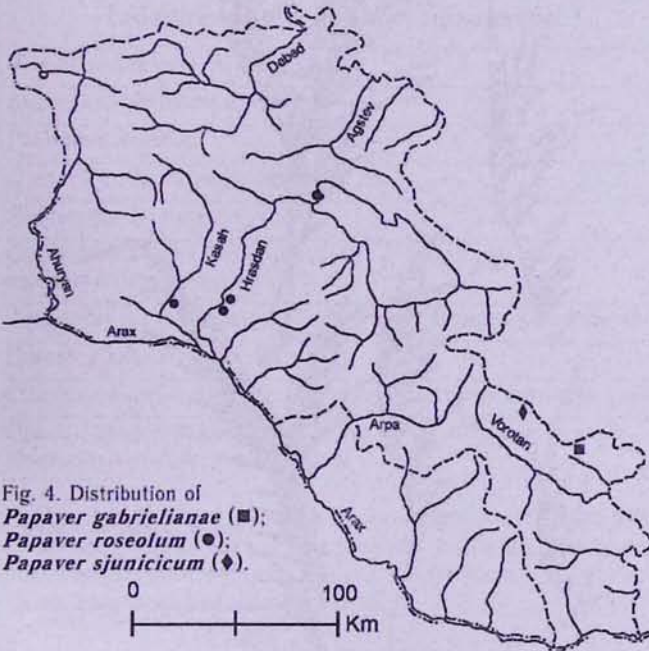


Fig. 4. Distribution of *Papaver gabrielianae* (■); *Papaver roseolum* (●); *Papaver sjunicicum* (◆).

*Papaver* sect. *Meconidium* comprises a group of species with a SW Asian distribution. It is less thoroughly investigated than other groups. They grow in the middle mountain belt in Anatolia, the Caucasus (including Transcaucasia), Elburz and Zagros Mountains (Kadereit, 1993). Apart from their recent monographic revision by Kadereit (1993), where

the coverage of Transcaucasia was cursory, and Cullen's (1965, 1966, 1980) regional accounts for Iraq, Turkey and Iran, there are no recent studies on these species. The present taxon clearly falls within this section but stands apart from its other representatives by its distinctive, thick rootstock, covered with the remains of petioles of withered leaves, in several rows, that convey an impression of the plants being perennial. This peculiar growth habit, together with the enlarged, thick rays of the stigmatic disc, may well reflect the extreme climatic conditions in the high-mountain habitat where the plant is found. The whole group is in need of a detailed study, based not only on herbarium material but including field observations and a karyological and molecular analysis.

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