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## A new species of the genus *Amberboa* (Asteraceae) from Dagestan

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**Summary.** A new species of the genus *Amberboa* (Asteraceae) from Dagestan is described, which was previously mixed with *A. glauca*. The new species differs from the latter in the large size of capitula, marginal flowers, achenes, and longer pappus. In addition, the color of the corolla in the described species is dark pink, while in *A. glauca* it is light pink. *Amberboa daghestanica* also differs in almost glabrous involucre and longer (up to 10 mm) receptacle pellicles, while *A. glauca* has involucre with tomentose-arachnoid pubescence, and receptacle pellicles about 4–5 mm long. The area of the new species covers the limestone mid-mountain Dagestan, while *A. glauca* occurs only in the lower foothills. The differences between the new species and *A. moschata*, a species from Southern Transcaucasia, are also shown.

## Новый вид рода *Amberboa* (Asteraceae) из Дагестана

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**Ключевые слова:** *Amberboa daghestanica*, Дагестан, морфология, новый вид, систематика.

**Аннотация.** Описывается новый вид рода *Amberboa* (Asteraceae) из Дагестана, который ранее определяли как *A. glauca*. Новый вид от последнего отличается крупными размерами корзинок, краевых цветков, семянков и более длинными хохолками. Кроме того, цвет венчика у описываемого вида тёмно-розовый, тогда как у *A. glauca* светло-розовый. *Amberboa daghestanica* также отличается почти голыми обёртками и более длинными (до 10 мм) плёнками цветоложа, тогда как у *A. glauca* обёртки с войлочно-паутинистым опушением, а плёнки на цветоложе около 4–5 мм длиной. Ареал нового вида охватывает территорию известнякового среднегорного Дагестана, а *A. glauca* встречается только в полосе нижних предгорий. Также показаны отличия нового вида от *A. moschata*, характерного для Южного Закавказья.

*Amberboa* (Pers.) Less. (Asteraceae) is a small genus distributed mainly in South-West, Middle and Central Asia. Until recently, the genus consisted of 8 species (Tzvelev, 1963; Wagenitz, 1975; Hellwing, 2004), but in the last few years, two new species of this genus from Central Asia (Gabrielyan, 2011) and a couple of new species from Iran (Ranjibar, Negaresh, 2013; Negaresh, 2015) have been described.

In the Caucasus, the genus is represented by 7 species (Gabrielyan, 2008), of which *A. glauca* (Willd.) Grossh. is provided for Dagestan (Tzvelev, 1963; Galushko, 1980; Murtazaliev, 2009). Some inaccuracies in the description and vagueness of characters led to a certain mess in this and related species, which are quite well described in the literature (Gabrielyan, 1995, 2008; Gabrielian, Jarvis, 1996).

In the first edition of “Flora of the Caucasus” (Grossheim, 1934) and in “Key to Plants of the Caucasus” (Grossheim, 1949), two species were indicated for Dagestan: *A. glauca* and *A. biennis* Iljin. By the first species *A. glauca* Grossheim meant taxon now called *A. moschata* (L.) DC. As it turned out later, this taxon is distributed only in the Southern Transcaucasia, namely in the Ararat Valley and in adjacent areas of Turkey (Gabrielyan, 2008). The characters of the second taxon (*A. biennis*) correspond to the true *A. glauca* distributed more widely from Dagestan to North-East Turkey. In “Flora of the USSR” N. Tzvelev (1963) distinguished these taxa correctly, but due to the impossibility of studying the type material, some points remained questionable and not fully clarified. Thus, in this work, N. Tzvelev wrote in a note to *A. glauca*: “In Dagestan, and apparently also in Transcaucasia, along roads and near human

settlements, there are specimens of *A. glauca* with slightly enlarged marginal flowers, deviating to the previous species (*A. moschata* – author’s note), but quite well different from it” (Tzvelev, 1963: 327).

Observations of this taxon in nature in Dagestan revealed an interesting picture. It turned out that all populations of this taxon within the Intramountain Limestone Dagestan are quite well isolated and differ from the foothill populations. This circumstance prompted more detailed population studies of this species in different parts of its distribution area.

To clarify the differences, qualitative and quantitative morphological characters, as well as features of ecology and biology, were studied. For this purpose, two populations were selected in the foothill and mid-mountain zones of Dagestan. A brief description of the natural conditions of these populations is given in Table 1.

Table 1

Characteristic of natural conditions of the studied populations *Amberboa*

Location of the population	Foothill zone		Mid-mountain zone	
	Surroundings of the dune Sarykum (Kumtorkalinsky district)	Surroundings of the village Maraga (Tabasaransky district)	Surroundings of the village Gergebil (Gergebilsky district)	Surroundings of the village Tsudakhar (Levashinsky district)
Coordinates	42°59'59"N, 47°13'27"E	41°55'52"N, 48°13'14"E	42°30'13"N, 47°03'31"E	42°19'43"N, 47°09'46"E
Height above sea level	100	300	670	1100
Type of plant community	Wormwood-ephemeral desert communities	Ephemeral desert communities	Upland xerophyte communities	Cliffs, slopes along the roads
Type of soil	Clayey light chestnut soils	Clayey light chestnut soils	Limestone clayey	Limestone clayey

In each population, 30 plants were selected for the study, in which the diameter of the capitula, the size of the marginal flowers, the length of the achene and pappus, as well as the nature of the pubescence and the color of the corolla were studied. The results of studying these characters are shown in Table 2.

As can be seen in Table 2, almost all indicators of the studied quantitative characters in populations from the mid-mountain zone (i. e., *A. daghestanica*) are higher compared to populations from the foothill zone (*A. glauca*). The difference is especially visible in the size of the marginal flowers. Thus, the average values of this character for populations from the foothills are about 2.5 cm, while in populations from the middle mountains, the length of the marginal flowers is about 3.8 cm, that is, the marginal flowers of *A. daghestanica* are 1.5 cm longer than those of *A. glauca* (Fig. 1).

Significant differences between foothill and mid-mountain populations are also observed in the size of achenes (Table 2, Fig. 2). On average, the length of achenes in plants from the foothill populations (*A. glauca*) is about 3.5 mm, while in populations from the mid-mountain zone, it is approximately 4 mm (*A. daghestanica*).

Greater difference between the compared populations is noticeable in the size of the pappus. Thus, in plants from the foothill populations (*A. glauca*), the length of the pappus ranges from 1.84 to 1.95 mm, while in plants from the mid-mountain populations (*A. daghestanica*), it is almost twice as long and ranges from 3.54 to 3.71 mm. In addition, the thickness of the achenes in plants from the mid-mountain zone reaches 1.5 mm, while the achenes in plants from the foothill populations are about 1 mm thick, and they are more intensely pubescent. It

is worth noting a significant difference between the compared populations in the length of the receptacle pellicles. The size of the pellicles in plants from the foothill populations (*A. glauca*) reaches only 5 mm, while in plants from the mid-mountain zone (*A. daghestanica*), the receptacle pellicles are twice as long and are about 8–10 mm.

The compared populations also differ in some qualitative characters. The marginal flowers of plants from the mid-mountain zone are more intensely colored (pink, sometimes dark pink) compared to plants from the foothill zone, whose marginal flowers are light pink. In addition, during the flowering period, the involucre of plants from the foothill populations (*A. glauca*) has intense tomentose-arachnoid pubescence, while in plants from the

populations from the mid-mountain zone (*A. daghestanica*), it is completely glabrous or sometimes covered with sparse pubescence, especially the lower leaflets of the involucre.

A discriminant analysis based on the studied quantitative characters (diameter of capitula, length of marginal flowers, length of achene and length of pappus) showed that the mid-mountain populations were quite well separated from the foothill populations (Fig. 3). In the Figure 3 we can see the characters of foothill populations slightly more scattered while the characters of populations from the mid-mountain zone are more grouped. At the same time, the populations of the foothill and mid-mountain zones are quite well separated and do not overlap.

Table 2

Indicators of some characters of the studied populations *Amberboa*

Characters	Foothill zone ( <i>A. glauca</i> )		Mid-mountain zone ( <i>A. daghestanica</i> )	
	“Sarykum” population	“Maraga” population	“Gergebil” population	“Tsudakhar” population
Diameter of capitula, mm	15.83 ± 0.26	11.6 ± 0.31	18.90 ± 0.32	17.23 ± 0.24
Length of marginal flowers, mm	26.06 ± 0.42	25.3 ± 0.27	38.96 ± 0.58	38.16 ± 0.59
Length of achene, mm	3.49 ± 0.05	3.5 ± 0.04	3.94 ± 0.05	4.11 ± 0.02
Length of pappus, mm	1.95 ± 0.06	1.84 ± 0.05	3.71 ± 0.06	3.54 ± 0.05
Length of receptacle pellicles, mm	4–5	3–5	8–10	9–10
Color of marginal flowers	Light pink	Light pink	Pink (sometimes dark pink)	Pink (sometimes dark pink)
Pubescence of involucre (during flowering)	Tomentose arachnoid	Tomentose arachnoid	Glabrous, with slight pubescence at base of involucre	Sparse pubescence at base of involucre

Fig. 1. Inflorescences: A – *Amberboa daghestanica* (Gunib); B – *A. glauca* (Sarykum).

The results obtained give us a reason to distinguish plants from the mid-mountain Dagestan into an independent species, which differs well in morphological characters from plants in the foothill zone and has a well-defined isolated distribution area. A description of this taxon is provided below.

***Amberboa daghestanica* Murtazaliev, sp. nov.**

Biennial plant, up to 70(90) cm high. Taproot thick, sometimes thickened to 2 cm in diameter. Stems erect, simple or branched, covered with short curly hairs, ribbed. The leaves mostly pinnately divided or pinnately dissected, sometimes the upper ones with entire margins, the basal and lower stem ones petiolate, the rest sessile (Fig. 4).

Leaves pubescent with curly hairs, especially along the margins and veins; the pubescence sparse on the underside. Medium stem leaves up to 10–15 cm long. Capitula large, single, at the ends of leafless long peduncles. Involucres large, spherical or ovoid-spherical: up to 15 mm long and up to 20 mm wide; pubescence weak, often absent. Involucre bracts often with a pinkish membranous margin approximately 1 mm wide.



Fig. 2. Plant seeds of the studied populations: 1 – surroundings of the village Gergebil; 2 – surroundings of the village Tsudakhar (mid-mountain zone, *Amberboa daghestanica*); 3 – surroundings of the dune Sarykum; 4 – surroundings of the village Maraga (foothill zone, *A. glauca*).

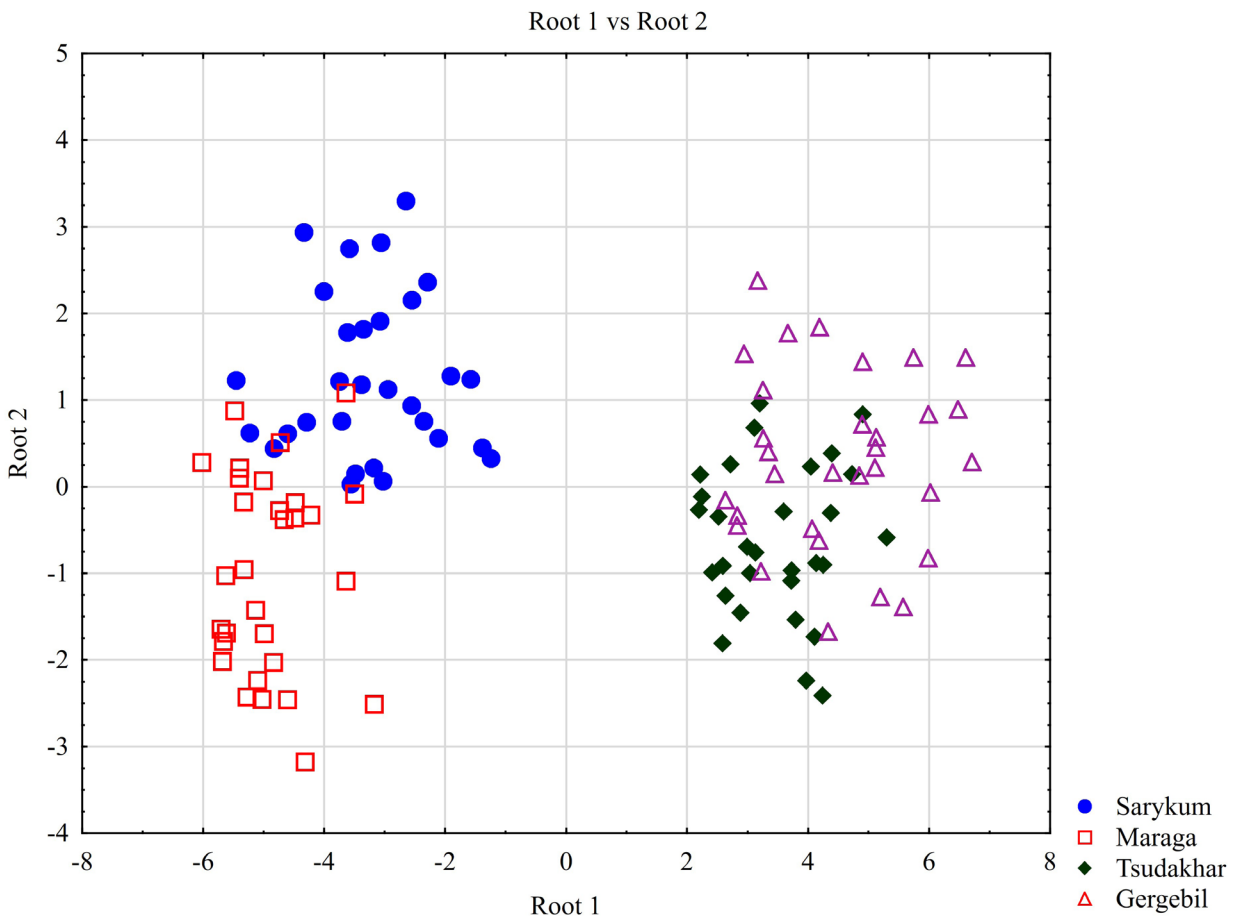


Fig. 3. Distribution of the population characters in the space of two canonical roots according to the results of discriminant analysis.



Fig. 4. Rosette of basal leaves of *Amberboa daghestanica*, 1st year (surroundings of the village Tsudakhar. 22 VII 2023).

The inner involucre bracts up to 13–15 mm long and up to 8 mm wide, at the ends with easily falling brown, membranous, widely triangular scales – up to 6 mm long and up to 7 mm wide. The outer side of the scales evenly covered with sparse dotted hairs. The receptacle flat, covered with numerous white setae up to 1 cm long. The marginal flowers glabrous, broadly infundibular, pink (sometimes dark pink), divided almost to the middle into 15–25 lobes, up to 4(4.5) cm long, much longer than the inner tubular ones (2–2.5 cm long). The seeds about 4 mm long and up to 1.5 mm wide with the pappus almost the same length, light brown, evenly pubescent with light hairs directed towards the pappus.

**Holotype:** “Dagestan, Levashinsky district, surroundings of the village Tsudakhar, on the territory of the base of the Mountain Botanical Garden DFRC RAS, southern slope, 1100 m, 42°19'43"N, 47°09'46"E. 22 VII 2023. R. Murtazaliev” (LE, iso – LE, DAG [2×], ALTB) (Fig. 5).

**Paratypes:** “Caucasus orientalis, Dagestania borealis. Inter Gimri et oriente Koisu. VI 1861. Ruprecht” (LE); “Prov. Dagestan, distr. Dargi. In calcareis prope pag. Chodshal-makhi, m. Kontsala-bek. 4 VII 1897. Th. Alexeenko” (LE); “Prov. Dagestan, prope Gunib. 5 VII 1897. Th. Alexeenko” (LE);

“Dagestan, between the vill. Botlikh and the Preobrazhensky bridge, mountain-steppe vegetation. 29 VI 1904. N. Busch” (LE); “Dagestan, Gunibsky Okrug, Kara-Koisu River valley, between vill. Gunib and Rugudzha, rocky-clayey cliffs to the road. 20 VII 1928. A. Poretsky” (LE); “Dagestan, Gunibsky Okrug, Avar Koisu valley, between vill. Gidatl and Datuna, conglomerate mounds. 21 VIII 1928. A. Poretsky” (LE); “Dagestan, Levashinsky district, near Levashy, limestone ridge, sedge-sage thickets. 2 VIII 1939. E. Horvat” (LENUD); “Kakhibsky district, vill. Golotl, cemetery. 25 VII 193?. E. Arsenyeva” (MW); “Dagestan, Gunibsky district, vill. Salta, dry southwestern slope to Saltakal River, not far from the Georgievsky bridge. 27 IX 1940. L. Chilikina, I. Sapozhnikova” (LENUD); “Dagestan, Levashinsky district, vill. Khadzhal-makhi. 1941. Volkova” (LENUD); “Dagestan, Gunibsky district, on the road from Chokh to Gunib, dry southern slope. 13 VII 1948. L. Chilikina” (LENUD); “Dagestan, Gunibsky district, dry southern slope on the road from the vill. Chokh to Gunib. 13 VII 1948. G. Primakova” (LENUD); “Untsukul'sky district, near aul Irganai, near the road to Arakani, in beard grass steppe. 28 VIII 1953. Ya. Prokhanov, N. Cheldyshev” (LE); “Dagestan, Laksy district, east of



Fig. 5. Type specimen of *Amberboa daghestanica*.

the vill. Unchucatl, Laksky Koisu valley opposite the Krashinsky bridge. 18 X 1953. G. Magomedov" (MHA); "Dagestanskaya ASSR, Gunibsky district. Dry clayey slope along the road to the vill. Verkhniy Gunib, 2000 m. 28 VII 1955. Kaden, Tikhomirov, Zagorodnyaya, Iofa" (MW); "Dagestan, Levashinsky district, beard grass steppe with feather grass and wormwood along the southern slope at the outcrops of tiled limestone along the road to the vill. Khadzhal'makhi. 7 VIII 1958. N. Yarullina" (LENUD); "Dagestanskaya ASSR, Gunib, rocky slopes. 8 VII 1964. V. Surova" (MHA); "Dagestan, Tsudakhar, road to Gergebil, limestone coarse gravelly slopes. 11 VII 1965. A. Radzhi" (LENUD); "Dagestan, Khadzhal'makhi, on limestone slopes along the road. 12 VII 1965. A. Radzhi" (LENUD); "Dagestanskaya ASSR, Botlikhsky district, the Andiysky Koisu gorge, between the vill. Tlokh and Botlikh, dry desert slopes. 31 VII 1966. E. Gogina, G. Proskuryakova" (MHA); "Dagestan, Botlikhsky district, vill. Muni, in glades. 4 VIII 1975. R. Feyzulaeva" (LENUD); "Dagestan, vill. Tlyaratinka. Andiysky ridge. 3 VII 1976. M. Pimenov" (MW); "DASSR, Botlikhsky district, vill. Botlikh. 22 VII 1976. Yu. Menitsky, T. Popova" (LE); "Dagestan, Botlikhsky district, 8 km west of Botlikh along the river Andiyskoe Koisu. 5 VIII 1982. I. Rusanovich" (MHA); "East Caucasus, Dagestan, surroundings of vill. Botlikh. The Andiysky

Koisu gorge near the Preobrazhenskaya Fortress. Steep slopes of the floodplain terrace. 20 VII 1987. V. Bochkin, V. Sagalae, M. Kostina" (MHA); "Dagestan, Gumbetovskiy district, vill. Tantari, on dry slopes, pebbles. 16 VII 2004. A. Alikilichov" (LENUD); "Dagestan, Botlikhsky district, vill. N. Alak, in the bush, along the road, 800 m. 23 VII 1996. R. Murtazaliev" (DAG); "Dagestan, Botlikhsky district, vill. Botlikh, 800 m. 25 VI 2014. M. Gadzhiaev" (DAG); "Dagestan, Botlikhsky district, surroundings of vill. Kvankhidatli, southwestern slope, 600 m. 29 VII 2018. M. Gadzhiaev" (DAG); "Dagestan, Botlikhsky district, surroundings of vill. Botlikh, southwestern slope, 840 m. 29 VII 2018. M. Gadzhiaev" (DAG); "Dagestan, Levashinsky district, surroundings of vill. Tsudakhar, rocky slope, 10 VI 2019. A. Fateryga" (MW); "Dagestan, Gergebil'skiy district, vill. Gergebil, along the road, 670 m. 10 VI 2022. R. Murtazaliev" (DAG); "Dagestan, Levashinsky district, surroundings of vill. Tsudakhar, on the territory of the base of the Mountain Botanical Garden DFRC RAS, southern slope, 1100 m. 8 XI 2022. Z. Huseynova" (DAG); "Dagestan, Gergebil'skiy district, vill. Gergebil, along the road on the outskirts of the village, 670 m. 22 VII 2023. R. Murtazaliev" (DAG); "Dagestan, Untsukul'skiy district, opposite the vill. Maydanskoe, along the road, 580 m. 22 VII 2023. R. Murtazaliev" (DAG).



Fig. 6. Shapes of marginal flowers: A – *Amberboa moschata* (Armenia, near Nubarashen vill., on the red-clay slopes, 1190 m. 21 V 2006. G. Fayvush [LE]); B – *A. daghestanica* (Dagestan, Gergebil'skiy district, vill. Gergebil, along the road, 670 m. 10 VI 2022. R. Murtazaliev [DAG]).

**Affinity.** The new species is closest to *A. glauca*, from which it differs in the large size of the capitula, longer marginal flowers, large seeds and pappus, darker color of the corolla and less pubescence of the involucre (Table 2). *Amberboa moschata* differs from the described species in the smaller size and shape of the marginal flowers (in *A. daghestanica* the marginal flowers are broadly infundibular). The marginal flowers of *A. moschata* are divided into only 1/5 of the expanded part by 10–20 teeth, whereas in *A. daghestanica* they are divided almost to half by 15–25 teeth (Fig. 6). *Amberboa moschata* is found only in the Ararat Valley and surrounding areas of Turkey.

**Distribution.** The area of *Amberboa daghestanica* is geographically well isolated. The species is found exclusively in the limestone part of mid-mountain Dagestan, while *A. glauca* is found only in the lower foothills (Fig. 7). Endemic to Dagestan.

**Ecology and biology features.** The new species grows in communities of mountain xerophytes in the limestone part of Dagestan at altitudes of 500–1500 m a. s. l., preferring exposed and steep slopes without dense vegetation. Often it is found on clayey

slopes, on the sides along roads, as well as in human settlements. Rarely it grows in communities of upland beard grass steppes (Fig. 8). Flowering from late May to August, sometimes secondary flowering in early autumn, fruiting in July.

The brief determination key to the species studied is provided below.

1. Annual plants. The marginal flowers divided into teeth on only 1/5 of the expanded part of the corolla. Achenes 6–7 mm ..... *Amberboa moschata*
- Biennial plants. The marginal flowers divided into teeth almost to the half of the expanded part of the corolla. Achenes 3.5–4 mm long ..... 2
2. The corolla is pink (sometimes dark pink), the marginal flowers up to 4 cm long. Achenes about 4 mm long, pappus more than 3.5 mm. Plants of the mid-mountain zone of Dagestan ..... *A. daghestanica*
- The corolla is light pink, the marginal flowers up to 2.5 cm long. Achenes about 3.5 mm long, pappus up to 2 mm. Plants of the lower mountain belt of Dagestan ..... *A. glauca*



Fig. 7. Distribution of *Amberboa daghestanica* and *A. glauca* in Dagestan.





Fig. 8. *Amberboa daghestanica* in the composition of beard grass steppes (surroundings of the village Tsudakhar. 22 VII 2023).

Двулетнее растение высотой до 70(90) см. Корень толстый, стержневой, иногда утолщенный до 2 см диаметром. Стебли прямостоячие, простые или разветвленные, коротко покрытые курчавыми волосками, ребристые. Листья большей частью перистораздельные или перисторассеченные, иногда верхние цельнокрайные, прикорневые и нижние стеблевые черешковые, остальные – сидячие (Fig. 4).

Листья опушены курчавыми волосками, особенно по краям и жилкам, с нижней стороны опушение редкое. Средние стеблевые листья до 10–15 см длиной. Корзинки крупные одиночные, в концах безлистных длинных цветоножек. Обертки крупные, шаровидные или яйцевидно-шаровидные: до 15 мм длиной и до 20 шириной; опушение слабое, чаще отсутствует. Листочки обертки по краю чаще всего с розоватой пленчатой окраиной, шириной примерно 1 мм.

Внутренние листочки обертки до 13–15 мм длиной и до 8 мм шириной, на концах с легко опадающими коричневыми, пленчатыми, широко треугольными чешуйками – до 6 мм длиной и до 7 мм шириной. Чешуйки с наружной стороны равномерно покрыты редкими точечными волосками. Цветоложе плоское, покрытое много-

численными белыми щетинками до 1 см длиной. Краевые цветки голые, широко воронковидные, розовые (иногда темно-розовые), почти до середины разделены на 15–25 лопастей, до 4(4,5) см длиной, намного длиннее внутренних трубчатых (2–2,5 см длиной). Семена около 4 мм длиной и до 1,5 мм шириной, с почти такой же длины хохолком, светло-коричневые, равномерно опушенные светлыми волосками, направленными в сторону хохолка.

**Голотип:** «Дагестан, Левашинский р-н, окр. сел. Цудахар, на территории базы ГорБС ДФИЦ РАН, южн. склон, 1100 м, 42°19'43"N, 47°09'46"E. 22 VII 2023. Р. Муртазалиев» (LE, изо – LE, DAG [2×], ALTB) (Fig. 5).

**Паратипы:** «Caucasus orientalis, Dagestania borealis. Inter Gimri et oriente Koisu. VI 1861. Ruprecht» (LE); «Prov. Dagestan, distr. Dargi. In calcareis prope pag. Chodshal-makhi, m. Kontsala-bek. 4 VII 1897. Th. Alexeenko» (LE); «Prov. Dagestan, prope Gunib. 5 VII 1897. Th. Alexeenko» (LE); «Dagestan, между с. Ботлих и Преображенским мостом, горностепная растительность. 29 VI 1904. N. Busch» (LE); «Дагестан, Гунибский округ, долина р. Кара-Койсу, между сс. Гуниб и Ругуджа, каменисто-глинистые обрывы к дороге. 20 VII

192ф8. А. Порецкий» (LE); «Дагестан, Гунибский округ, долина Аварского Койсу, между сс. Гидатль и Датуна, конгломератовые бугры. 21 VIII 1928. А. Порецкий» (LE); «Дагестан, Левашинский р-н, около Левашей, известняковая гряда, осоково-шалфейные заросли. 2 VIII 1939. Е. Хорват» (LENUD); «Кахибский р-н, сел. Голотль, кладбище. 25 VII 193?. Е. Арсеньева (MW); Дагестан, Гунибский р-н, сел. Салта, сухой юго-зап. склон к речке Салтакал, недалеко от Георгиевского моста. 27 IX 1940. Л. Чиликина, И. Сапожникова» (LENUD); «Дагестан, Левашинский р-н, с. Хаджалмахи. 1941. Волкова» (LENUD); «Дагестан, Гунибский р-н, по дороге из Чоха в Гуниб, сухой южный склон. 13 VII 1948. Л. Чиликина» (LENUD); «Дагестан, Гунибский р-н, сухой южный склон по дороге из с. Чох в Гуниб. 13 VII 1948. Г. Примакова» (LENUD); Унцукульский р-н, близ аула Ирганай, у дороги в Аракани, в бородачовой степи. 28 VIII 1953. Я. Проханов, Н. Челдышев» (LE); «Дагестан, Лакский р-н, восточнее с. Унчукатль, долина Лакского Койсу против Крашинского моста. 18 X 1953. Г. Магомедов» (МНА); «Дагестанская АССР, Гунибский р-н, сухой глинистый склон вдоль дороги в с. Верхний Гуниб, 2000 м. 28 VII 1955. Каден, Тихомиров, Загородняя, Иофа» (MW); «Дагестан, Левашинский р-н, бородачевая степь с ковылем и полынью по южному склону на выходах плиточного известняка по дороге в с. Хаджалмахи. 7 VIII 1958. Н. Яруллина» (LENUD); «Дагестанская АССР, Гуниб, скалистые склоны. 8 VII 1964. В. Сурова» (МНА); «Дагестан, Цудахар, дорога на Гергебиль, известняковые крупно-щебнистые склоны. 11 VII 1965. А. Раджи» (LENUD); «Дагестан, Хаджалмахи, на известняковых склонах по дороге. 12 VII 1965. А. Раджи» (LENUD); «Дагестанская АССР, Ботлихский р-н, ущелье Андийского Койсу, между сел. Тлох и Ботлих, сухие опустыненные склоны. 31 VII 1966. Е. Гогина, Г. Проскуракова» (МНА); «Дагестан, Ботлихский р-н, с. Муни, на полянах. 4 VIII 1975. Р. Фейзулаева» (LENUD); «Дагестан, п. Гляратинка, Андийский хр. 3 VII 1976. М. Пименов (MW); ДАССР, Ботлихский р-н, сел. Ботлих. 22 VII 1976. Ю. Меницкий, Т. Попова» (LE); «Дагестан, Ботлихский р-н, 8 км на запад от Ботлиха по р. Андийское Койсу. 5 VIII 1982. И. Русанович» (МНА); «Вост. Кавказ, Дагестан, окр. пос. Ботлих. Ущелье Андийского Койсу у Преображенской крепости. Обрывистые склоны надпойменной террасы. 20 VII 1987. В. Бочкин, В. Сагалаев, М. Костина» (МНА); «Дагестан, Гумбетовский р-н, с. Тантари, на сухих склонах, галечниках. 16 VII 2004. А. Аликиличов» (LE-

NUD); «Дагестан, Ботлихский р-н, сел. Н. Алак, в куст., вдоль дороги, 800 м. 23 VII 1996. Р. Муртазалиев» (DAG); «Дагестан, Ботлихский р-н, сел. Ботлих, 800 м. 25 VI 2014. М. Гаджиатаев» (DAG); «Дагестан, Ботлихский р-н, окр. сел. Кванхидатли, юго-зап. склон, 600 м. 29 VII 2018. М. Гаджиатаев» (DAG); «Дагестан, Ботлихский р-н, окр. сел. Ботлих, юго-зап. склон, 840 м. 29 VII 2018. М. Гаджиатаев» (DAG); «Дагестан, Левашинский р-н, окр. с. Цудахар, каменистый склон. 10 VI 2019. А. Fateryga» (MW); «Дагестан, Гергебильский р-н, с. Гергебиль, вдоль дороги, 670 м. 10 VI 2022. Р. Муртазалиев» (DAG); «Дагестан, Левашинский р-н, окр. сел. Цудахар, на территории базы ГорБС ДФИЦ РАН, южн. склон, 1100 м. 8 XI 2022. З. Гусейнова» (DAG); «Дагестан, Гергебильский р-н, сел. Гергебиль, вдоль дороги на окраине села, 670 м. 22 VII 2023. Р. Муртазалиев» (DAG); «Дагестан, Унцукульский р-н, напротив с. Майданское, вдоль дороги, 580 м. 22 VII 2023. Р. Муртазалиев» (DAG).

**Родство.** Наиболее близок к *A. glauca*, от которого отличается крупными размерами корзинок, более длинными краевыми цветками, крупными семенами и хохолком, более темным цветом венчика и меньшей опушенностью обертки (табл. 2). *Amberboa moschata* от описываемого вида отличается меньшими размерами и формой краевых цветков (у *A. daghestanica* краевые цветки широко-воронковидные). Краевые цветки у *A. moschata* разделены только на 1/5 расширенной части 10–20 зубцами, тогда как у *A. daghestanica* они разделены почти до половины 15–25 зубцами (Fig. 6). *Amberboa moschata* встречается только в Араратской долине и в прилегающих районах Турции.

**Распространение.** Ареал *Amberboa daghestanica* географически хорошо обособлен. Вид встречается исключительно в известняковой части среднегорного Дагестана, тогда как *A. glauca* встречается только в полосе нижних предгорий (Fig. 7). Эндемик Дагестана.

**Особенности экологии и биологии.** Встречается в сообществах нагорных ксерофитов известняковой части Дагестана в пределах высот 500–1500 м над ур. м., предпочитая обнаженные и обрывистые склоны, лишенные густой растительности. Часто отмечается на глинистых склонах, в откосах вдоль дорог, а также в населенных пунктах. Редко встречается в составе сообществ нагорных бородачевых степей (Fig. 8). Цветет с конца мая и до августа, иногда наблюдается вторичное цветение в начале осени, плодоношение начинается с июля.

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