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RESEARCH ARTICLE

The first records of the Pontic steppe subendemic *Salvia revelata* (*Lamiaceae*) in the Republic of Moldova: current status and threats

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Abstract. This article reports an addition to the flora of the Republic of Moldova — *Salvia revelata*, Pontic sage, a recently described Pontic steppe subendemic species, which previously has been confused with the similar vicariant *S. austriaca*, Austrian sage. The fieldwork during the flowering seasons of 2023–2025 has revealed 12 locations where the species occurs in the Republic of Moldova. Locally, the flowering individuals have been recorded from the first third of May until the second decade of June, but regional data from neighboring countries demonstrate that multiannual weather variability within the current climate change conditions can expand this timespan. The typical habitats of this species are rich steppe areas, but several individuals have also been found in natural or artificial clearings of thermophilous downy oak forests. During the study, main threats for conservation of *S. revelata* were identified, especially large-scale agriculture, overgrazing, pasture abandonment, invasive shrubs, and population isolation by habitat fragmentation. Also, several direct actions, such as halting afforestation (particularly with allochthonous species), rehabilitating grasslands, and promoting sustainable grazing, have been recommended to protect Pontic sage and other steppe subendemics within the Republic of Moldova.

Keywords: distribution, new species, phenology, *Salvia revelata*, steppe vegetation, threats

Introduction

The peculiar geography of the Republic of Moldova, especially combined with insufficient botanical field research, enables the list of local vascular plant species to enlarge yearly. During the last eight years, at least 29 new taxa (22 species, four subspecies, one variety, and two nothospecies) belonging to 20 families, have been discovered or confirmed as new records for the Republic of Moldova (Pînzaru, 2021a, 2023; Cassir, 2022, 2023; Sfeclă et al., 2023). Moreover, a new species, *Thymus coldeae* Pînzaru, which is believed to be endemic to the Middle Sarmatian limestone outcrops of the Republic of Moldova, was described (Pînzaru, 2021b).

The purpose of the present article is to highlight the presence of the recently described species, *Salvia revelata* Mátis & A.Z. Szabó (*Lamiaceae*),

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Fig. 1. Flowers of *Salvia revelata* with the vertical staminal lever mechanism. Zolotievca, Anenii Noi District, 03.05.2024

found for the first time in the Republic of Moldova, and to establish its current distribution pattern in the country. This cryptic species was described in October 2022 and recognized as representing a lineage distinct from Austrian sage, *S. austriaca* Jacq., with which it can be easily confused (Mátis et al., 2022). These two species can be correctly identified in the field by analyzing the position of the stamens, or the staminal lever mechanism, which is lateral in *S. austriaca* and vertical in *S. revelata* (Fig. 1). Thus far, little is known about the distribution, ecology, and biology of the latter species. Distribution-wise, it is accepted that its range is limited to the true Steppe zone of the Pontic Steppe, with few exceptional occurrences in the westernmost and northernmost limits (Mátis et al., 2022). In addition to identifying the distribution

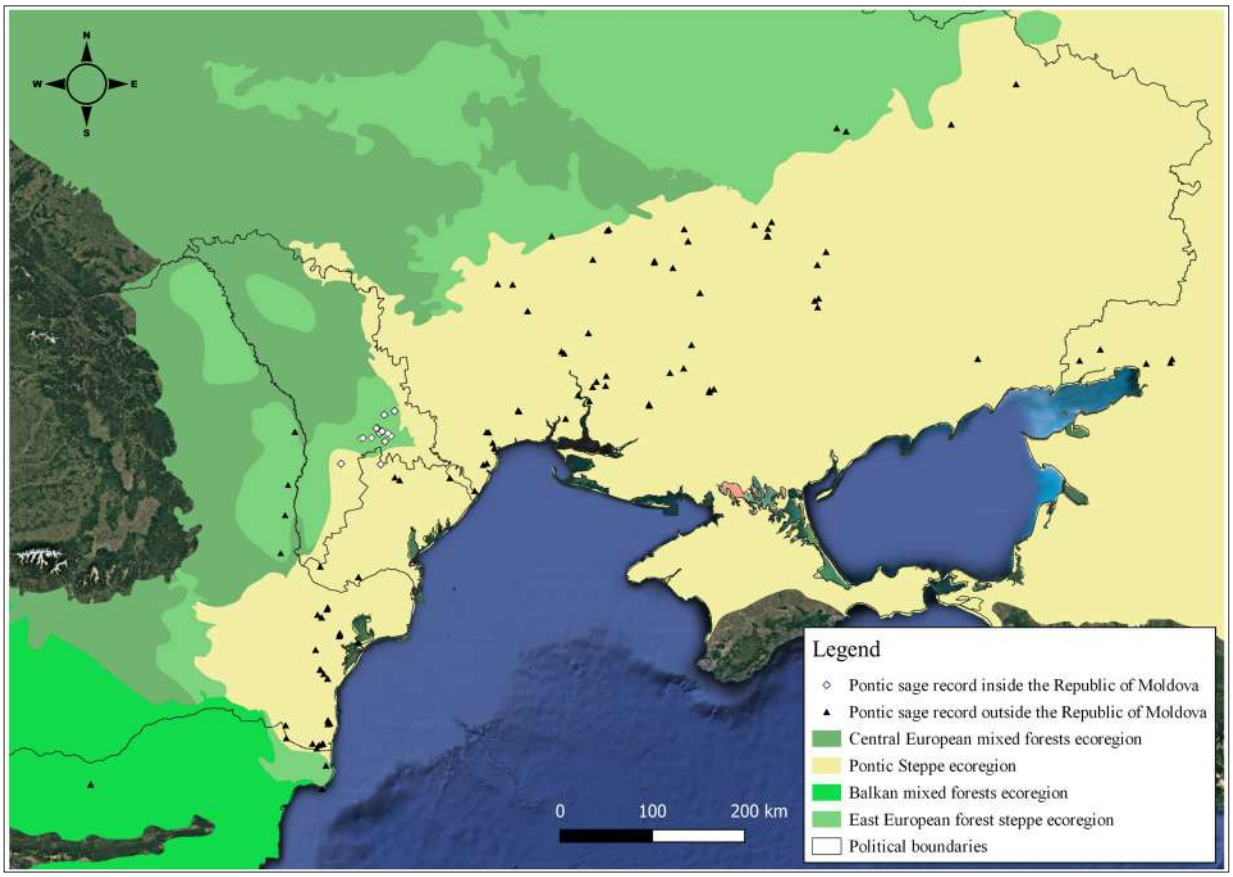

Fig. 2. Global known distribution of *Salvia revelata*. The current distribution classifies the species as a Pontic Steppe subendemic, judging from the majority of presence points that are located inside the Pontic Steppe ecoregion, or almost entirely inside the Steppic Bioregion (EEA, 2024–onward). White rhombi represent the known locations of Pontic sage in the Republic of Moldova, while black triangles represent the known locations according to Mátis et al. (2022), Mátis, pers. comm. 2025, and some more recent observations from *iNaturalist* platform (2024–onward). The ecoregions were classified and delimited following OneEarth (2024)

pattern of *S. revelata* in Moldova, this study also contributes new insight into the global distribution of the species, which is currently known only in four other countries surrounding the Black Sea (Bulgaria, RF, Romania, and Ukraine) (Fig. 2). Furthermore, it can provide opportunities to compare the species ranges of *S. revelata* and *S. austriaca* in Moldova and to find out if there is any distribution overlap and potential interactions between the two species in sympatry. Additionally, this study aims to highlight some identified limiting factors that may potentially threaten the local and regional populations of *S. revelata*.

Material and Methods

The fieldwork for this study has been carried out in June 2023, May–June 2024, and May–June 2025. The timing of the field trips has been planned according to personal observation of *Salvia* sp. on 15 June 2021 near Zaim village (originally identified as *S. austriaca*, but later re-identified as *S. revelata*), and to other observations recorded in the *iNaturalist* (2024–onward) online resource by users from Ukraine and Romania. Therefore, the surveys took place during multiple days. On 3 May 2024, a dedicated trip was made in order to collect four herbarium specimens, now deposited at the "Anastasie Fătu" Botanical Garden in Iași (specimen voucher IAGB47914), "Alexandru Ioan Cuza" University in Iași, Faculty of Biology (specimen voucher 207229), Moldova State University, and "Al. Ciubotaru" Botanical Garden in Chișinău (specimen vouchers 240414 and 240415, respectively) (Fig. 3). The first trip was set to reconfirm the presence of the species in the vicinity of Zaim village. Some of the survey locations have been selected using Google Earth satellite imagery, in order to match the habitat near Zaim village, which represents poorly or totally ungrazed pastures. Several proper habitats have been surveyed in the following districts: Căușeni, Anenii Noi, Ștefan Vodă, and Ceadîr-Lunga. The transect sampling method has been used for efficiently finding the target species and for estimating the relative abundance of *S. revelata* in the studied areas. For spotting the species from greater distances, a pair of 10 × 42 Zeiss binoculars has been used. The maps have been created using QGIS v.3.28 (https://qgis.org/) software. All figures are original and prepared by the author.

Fig. 3. Herbarium specimen of *Salvia revelata* deposited at the Herbarium of the "Al. Ciubotaru" Botanical Garden in Chișinău

Results

During multiple field trips, pastures in four districts (Căușeni, Anenii Noi, Ștefan Vodă, and Ceadîr-Lunga) have been surveyed in order to find the target species. As a result, *S. revelata* has been recorded in the following 12 locations described below.

The first observation of the species on 15 June 2021 was reconfirmed on 2 June 2023 (46.610024, 29.298758) on an abandoned pasture 1 km away from the locality of Zaim, Căușeni District, close to the geological and paleontological site "Zaim Quarry" (David et al., 2016). This grazing-excluded and abandoned pasture was almost entirely invaded by the alien species *Elaeagnus angustifolia* L. (oleaster), which has negative influence on the distribution and density of *S. revelata*. In areas where oleaster was absent, the density of Pontic sage was the highest, up to hundreds of flowering individuals per hectare. In the dense shrubbery dominated by *E. angustifolia*, only several or no individuals of

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Fig. 4. Typical habitats of *Salvia revelata*. A, C: rich steppes with little woody vegetation (A — Ucrainca, Căușeni District, 02.06.2024; C — Zolotievca, Anenii Noi District, 02.06.2024); B, D: abandoned/poorly grazed steppe, invaded mainly by *Elaeagnus angustifolia* (B — Baccelia, Căușeni District, 18.05.2024; D — Zaim, Căușeni District, 02.06.2023)

S. revelata were observed. Across the R26 road bordering the studied pasture in the northern limit, an overgrazed pasture is located, with no individuals of the species found, evidently due to the anthropogenic limiting factor of overgrazing.

The second site (46.729835, 29.178485) where *S. revelata* was recorded is located near Zolotievca village in Anenii Noi District. On 3 June 2023, many individuals were observed on a hilly pasture (Fig. 4C) used for cattle grazing. The local grass vegetation allows the species to develop large patches of flowering individuals. Due to the lack of bushy habitat, the local population of this species exceeds a few hundred flowering individuals. On 24 June 2023, the observed plants in the site near Zolotievca were already dried up. It is not clear yet if the drying phenomenon is a normal pattern of the species' phenology in the area, or if dry weather in late June affected the local population.

The third site (46.848221, 29.282815) was discovered north of Hîrbovățul Nou village in Anenii Noi District on 9 June 2023. The local vegetation was composed almost exclusively of herbaceous plants, while the trees and shrubs were identified only at the edges of the pasture. Unfortunately, only a single patch of a few flowering individuals was found. It is suggested that grazing might have affected the local population, although no grazing animals were seen during the survey. However, this site is one of the northernmost sites, being 26 km away from the first location in Zaim and 15 km from the second one in Zolotievca (Fig. 5). This area is located at the edge of the northern limit of the Bugeac (also Budjak or Budzhak) Steppe in Moldova (Postolache,

1995, and references therein). Thus, it is possible that the local population here is close to the edge of the species distribution range.

The fourth (46.683645, 29.222132) and fifth (46.701477, 29.254407) locations were found on the same day, 18 May 2024, close to Florica village and 3 km away, near Baccelia village (Căușeni District). These two locations are totally isolated by large agricultural areas of monocultures between and around them. The pasture near Florica village is used for grazing by livestock, mainly sheep, and many plants were visibly affected by the grazing. On the other pasture, with shrubs spreading easily due to almost no grazing, the vegetation cover was taller and denser (Fig. 4B).

On 19 May 2024, a rather unusual population was discovered in the middle of a forest dominated by downy oak (*Quercus pubescens* Willd.), north-east of Hîrbovăț village, Anenii Noi District (46.883636, 29.418432, Fig. 6). The plants of *S. revelata* were found in two different spots in opened microhabitats, such as the middle of forest tracks (Fig. 6B, C) and wooded meadows (Fig. 6A). Our observations of the species in dry and sparse native forest habitats confirm earlier reports by Mátis et al. (2022) of its occurrence in similar semi-open forested ecosystems. This is the northernmost site within the study area.

The seventh location (46.401296, 29.236471), documented on 2 June 2024, is near the border with Ukraine, south-west of Ucrainca village, Căușeni District (Fig. 4A). The plants were found growing on a rich and hilly steppe with very few invading oleasters.

The next two locations in Căușeni District are dated by 16 May 2025, one south of Baccelia village (46.675597, 29.293918) and another east of Marianca Nouă village (46.650093, 29.328093). Both populations are small and affected to different degrees by afforestation.

The tenth location was revealed on 18 May 2025 next to Cîrnățenii Noi railway, Căușeni District, along an abandoned car track. The site's vegetation is mainly woody, with the trail being the only open area suitable for a few individual plants.

The last two locations were found on pastures south of Căinari town, Căușeni District, on 30 May 2025 (46.660366, 29.053656; 46.655644, 29.022108). Due to their proximity, they probably formed once a single connected population, but following afforestation actions, the steppe habitat was fragmented and converted into woodland. Less than 10 flowering individuals were observed in both locations combined.

Discussion

Distribution aspects

Although the global distribution of *Salvia revelata* is currently insufficiently understood, the present data from Romania, Ukraine, RF, and Bulgaria suggests that its distribution is strongly correlated with the true Steppe zone of the Pontic Steppe (Fig. 2), with a very few exceptions (Mátis et al., 2022). So far, this rule also applies to the Republic of Moldova, but more data is needed about the species distribution. The currently known distribution in the country is restricted to Căușeni and Anenii Noi districts (Fig. 5), and Găgăuzia Autonomous Territorial Unit close to Bugeac Nature Reserve (https://www.inaturalist.org/observations/280473673, record from *iNaturalist* platform). It is highly probable that *S. revelata* is also present in the nearby districts, such as Ștefan Vodă, Ialoveni, Criuleni, Cimișlia, and Basarabeasca. The species may also occur in other southern districts — Hîncești, Leova, Cantemir, Cahul, and Taraclia. Although it is difficult to predict how far its range extends to the north, it is unlikely that the species will ever be found in the districts located further north from the ones previously mentioned, due to the forest-steppe character of central Moldova.

In further research, two aspects that would expand the knowledge about the distribution of *S. revelata* could be studied. One is the extent of the distribution pattern of the species in the Republic of Moldova. This is a matter of fieldwork, combined with bibliographical search in publications on the steppe vegetation in southern Moldova. In other words, some reports of *S. austriaca* from the southern districts might in fact turn out to be those of *S. revelata*, because so far it is widely accepted that these two species are vicariant, and the Austrian sage has not yet been recorded in the Pontic Steppe region (Mátis et al., 2022). Also, it would be very interesting to study how far north does *S. revelata* extend its range, and if it overlaps there with the range of *S. austriaca*.

Overall, the distribution of *S. revelata* in the Republic of Moldova is limited to the southern third of the country's territory. We expect the species to be relatively widespread in the mentioned area, but locally rare, and very restricted by some limiting

factors determined in Căușeni and Anenii Noi districts (Fig. 3D), where the species was registered. These limiting factors can be found in the rest of the country, and even at a regional level in the neighboring countries.

Phenology aspects

Judging by the limited data we have so far about the phenology of *S. revelata*, we can conclude that typically the flowering season in the Republic of Moldova lasts from the first decade of May until the second decade of June. However, the actual flowering season can span from the second decade of April to the second decade of July, depending on the meteorological conditions of each year that can induce earlier or later flowering. This statement is based on observations from Romania and Ukraine, recorded on the *iNaturalist* online platform during 2020–2024.

In 2024, the species was recorded very early by more users. The earliest observation was on 19 April 2024 in Kropyvnytskyi city, Kirovohrad Region (Oblast), Ukraine (https://www.inaturalist.org/observations/208134041, record from *iNaturalist*). On the same day, another observation of a flowering plant came near Târgușor, Constanța county, Romania (https://www.inaturalist.org/observations/208433170, record from *iNaturalist*). More observations were recorded in the second and third decade of April 2024, in Zaporizhzhia, Odesa, Kherson, and Dnipropetrovsk regions (oblasts) (iNaturalist, 2024–onward). We also recorded and collected the first flowering individuals on 3 May 2024, near Zolotievca, Anenii Noi District, Republic of Moldova, although few by number compared to the observation on 3 June 2023. On 23 April 2024, one *iNaturalist* user managed to find a flowering individual (https://www.inaturalist.org/observations/210651717, record from *iNaturalist*). These early sightings might be caused by the abnormal temperatures during the winter and spring of 2024. In the Republic of Moldova, the winter of 2023–2024 was characterized by very high temperatures that were 3.9–4.9 °C higher than the long-term average for this period (HSS, 2024–onward).

Consequently, these high values of the average temperatures might have caused an earlier end to the flowering season. The latest flowering individual recorded in the region, in that particular flowering season, was seen near the locality of Veseli Bokoven'ky, Kirovohrad Region (Oblast), Ukraine, on June 1 (https://www.inaturalist.org/observations/220410289, record from *iNaturalist*). Our last personal observation for 2024 was recorded in the study area on June 2, between the locality of Ucrainca (Moldova) and Chervone (Ukraine). The latest record for any year was registered on 13 July 2020 in Kyr'yakivka, Mykolaiv Region (Oblast), Ukraine (https://www.inaturalist.org/observations/92800073, record from *iNaturalist*). A simple analysis of regional records proves that on average an earlier starting flowering season tends to end earlier too, with the average flowering time span being 44 days per season. Another factor that could influence the recorded start of the flowering season, is the simple fact that people now are more capable of correctly identifying this newly described species.

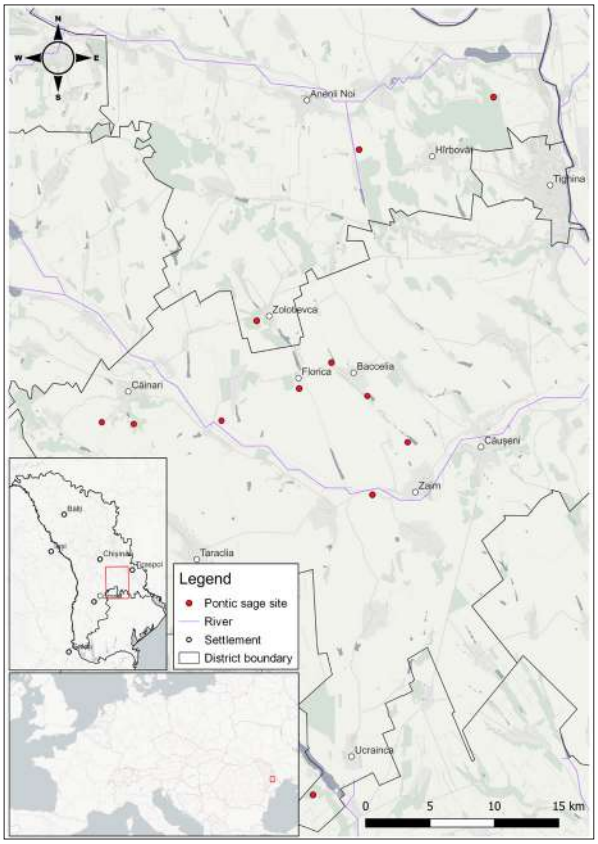

Fig. 5. Distribution map of the sites of *Salvia revelata* reported in this study (9 locations in Căușeni District and 3 in Anenii Noi District)

Threats and current status

During the fieldwork, a few observations were made about the state of the habitats, and also about some

Fig. 6. *Salvia revelata* in forested habitats. A: native downy oak forest with natural clearings suitable for the species; B, C: forest tracks made by lodging trucks, an artificial clearing of the forest, apparently also suitable for the species. Hîrbovăț Landscape Reserve, Anenii Noi District, 19.05.2024

limiting factors that affect the distribution and density of *Salvia revelata* in the studied area. The factors are mentioned in order from the most to the least pressing in two categories — fast-acting limiting factors (*FALF*) and slow-acting limiting factors (*SALF*). The following IUCN classification threats (Salafsky et al., 2024) will be described in the next paragraphs: 2.1 — Annual & perennial non-timber crops; 2.2 — Wood & pulp plantations; 2.3 — Terrestrial animal farming, ranching & herding; 7.6 — Removing / reducing human management (i.e. Grazing abandonment); 8.1 — Invasive non-native/ alien species.

***FALF* — fast-acting limiting factors.** Agriculture plays an immense role in limiting the local distribution through habitat fragmentation. Nowadays, the large areas of monocultures can be considered huge geographical barriers between distant populations of many native plant species. The percentage of land used for agriculture in Căușeni and Anenii Noi districts is 76.4%, and 60.58%, respectively, of total land area. In 2025, a substantial part of the prime steppe habitat near Zaim village, which is known to host a significant population of *S. revelata*, was ploughed. This observation supports the hypothesis that agriculture is an important limiting factor for the species.

Overgrazing drastically affects the local vegetation, allowing only some ruderal plants to survive in severely affected plots. According to the official site of Căușeni District (CDC, 2024–onward), in 2022 a total of 36 732 grazing animals were registered, from which 32 812 were sheep and goats (mostly sheep), 3 775 bovines, and 145 horses. This large number of domestic grazing mammals on 12 912 hectares of pastures results in about 0.35 hectares of pasture for each animal, or 0.56 GLU (Grazing Livestock Unit) per ha, which exceeds the carrying capacity of any

xeric steppe pasture, making the land management non-sustainable (Maruşca et al., 2014). Although the available area of pasture per grazing mammal is already too small for sustainable grazing, we have to keep in mind that more than half of pasture area is invaded by allochthonous species such as *Elaeagnus angustifolia*, meaning that these pastures are unavailable for grazing. The presence of oleaster in high density also proves the abandonment of grazing in recent decades, allowing this species to thrive undisturbed by livestock. In the end, a significant area of local pastures is very degraded by overgrazing, meaning that such species as Pontic sage have no chance to inhabit these ecosystems.

Another common threat to the grassland is the intentional afforestation of the steppes, mostly with allochthonous invasive species, usually with black locust (*Robinia pseudoacacia* L.). This practice is very common in the steppe zone of the country, where primary forests are rare, in order to increase the woodland surface, mainly for firewood.

***SALF* — slow-acting limiting factors.** Although complete abandonment of grazing for a short term is beneficial for vegetation recovery, it is a practice that leads to significant changes in the structure of vegetation, with shrubs eventually colonizing the area and taking over. In some places the abandonment of pastures can lead to a 60% loss in grassland plant species (Peco et al., 2006). Currently, in the Republic of Moldova, all of the pastures that have been abandoned in the last decades now experience a fast colonization by the invasive *E. angustifolia*. Initially planted to minimize soil erosion and to create windbreaks, the oleaster eventually managed to escape the plantations and colonize nearby non-grazed pastures. The same process was observed and studied in the nearby Kherson Region of Ukraine by Sudnik-Wójcikowska et al. (2009). With this phenomenon occurring, the local vegetation is rapidly changing, and many typical species of the grasslands are now threatened. In the current state of rapid oleaster colonization, Pontic sage as a heliophyte is prone to local declines and even local extirpation/extinction events. According to Bartha and Csiszár (2008), the fast spreading of *E. angustifolia* over natural grassland habitats can cause declines of typical or rare steppe plant species, creating more favorable conditions for colonization by mesophilous species. Also, it is concluded that the colonization by *E. angustifolia* contributes to the persistence of allochthonous and weedy species, by increasing the amount of nitrogen in the soil (Sudnik-Wójcikowska et al., 2009).

Population isolation by habitat fragmentation should also be taken into account, since during the period of the study the only 12 locations known with certainty to host *S. revelata* were located far away from each other. Generally speaking, these places act like islets where steppe species remain isolated in a "sea" of man-made ecosystems, and thus these locations could be considered more or less recent relics of a landscape before intensive agriculture. Continuous and linked spans of grassland habitats are rarely found in this region of the country; therefore, it is a matter of time before these small and isolated patches of steppe will not be suitable anymore for the survival of *S. revelata*. In the studied area, the cross-pollination of *S. revelata* can only occur with other sages from the same isolated population, a factor that could lead to slow local extinction events, similarly to the case of the meadow sage (*Salvia pratensis* L.) discussed by Ouborg & Van Treuren (1995). As the authors mention, long-term isolation of a small population could lead to inbreeding depression over time. It is also very probable that these small patches of appropriate habitat could easily change in the next few years, in favor of afforestation, agriculture, intensive grazing, or invasion of allochthonous species. In the future, we recommend that more studies should be carried out in Moldova to assess the distribution at the national level, frequency, and density of *S. revelata*, and in order to determine its exact conservation status. Also, *S. revelata* should be included in the 4th edition of the *Red Data Book of the Republic of Moldova* with a proper status, according to the IUCN criteria. Regarding this status, it is not generally enough to assess the level of concern with so little data about the distribution and population fluctuations, but if all the given limiting factors would be taken into account, it is safe to assume that most steppe plant species from Moldova are evaluated regionally either as Critically Endangered [CR], or Endangered [EN]. For the conservation of *S. revelata* and other Pontic steppe subendemics/endemics on the long term, official actions from the authorities should be taken in order to minimize the impact of invasive species such as *Elaeagnus angustifolia*, *Robinia pseudoacacia*, *Ailanthus altissima* Mill., and other landscape transformers, or at least halt the active afforestation schemes with such species on rich steppe habitats. After persistent clearing of

Fig. 7. A viable population of *Salvia revelata* in a steppe ecosystem near Zolotievca village, with only a few pioneering individuals of *Elaeagnus angustifolia* in the background and with a moderate amount of grazing livestock, 03.06.2023

the woody plants, the respective abandoned and invaded pastures are to be given back to sustainable and ecological grazing, resulting in an increase of grazing surface that would lead to a lower and more sustainable density of grazers per hectare, similar to the grasslands near Zolotievca village (Fig. 7).

Conclusion

A new species for the Republic of Moldova, *Salvia revelata*, has been recorded in the territory between the Dnister / Nistru and Prut rivers, along with some data about its known and expected distribution. The Republic of Moldova is now the fifth and probably the last country in the list to host this Pontic Steppe subendemic species. In total, 12 locations of *S. revelata* from Căușeni and Anenii Noi districts are known, but its actual distribution is thought to spread over the whole southern third part of the country, perfectly following the general Pontic Steppe range. However, the range is most probably very fragmented, with many populations being isolated by vast agricultural lands. In the Republic of Moldova, limited data about the flowering season is available, and now we know that the species is in bloom as early as the first decade of May and as late as the second decade of June. If we apply more data recorded on the *iNaturalist* online platform from nearby regions of neighboring countries, we can safely assume that the flowering season in the Republic of Moldova can last anywhere from the second decade of April to the second decade of July, depending on climatic factors that differ annually. Some limiting factors have been identified in the study area, and were categorized into fast-acting limiting factors (*FALF*) and slow-acting limiting factors (*SALF*). The identified *FALF* were agriculture on a large scale and overgrazing. On the other hand, the recorded *SALF* were abandonment of grazing, leading to fast colonization by invasive plant species, such as the *Elaeagnus angustifolia*, which are able to alter completely the local native phytocoenoses. The last limiting factor is the population isolation by

habitat fragmentation, which could lead to vulnerability in the face of agriculture, overgrazing, invasive species, and even inbreeding depression. These limiting factors can easily be identified on the whole territory of the country, and even in the neighboring countries (Romania and Ukraine). A series of actions, such as more research of the distribution and state of the species, are recommended. Additionally, *S. revelata* should be added to the 4th edition of the *Red Data Book of the Republic of Moldova* with a proper status, according to the IUCN criteria. For long-term conservation of this species and other Pontic Steppe subendemics/endemics, official actions from the authorities should be taken to minimize the impact of invasive plant species. Invaded pastures are to be given back to ecological grazing, according to their livestock carrying capacity, and this way a more sustainable land use can be achieved by increasing grazing surface, therefore lowering the average density of grazers per hectare.

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ETHICS DECLARATION

The author declares no conflict of interest.

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Перші знахідки субендеміка понтійських степів *Salvia revelata* (*Lamiaceae*) у Республіці Молдова: сучасний стан і загрози

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Реферат. У статті наводиться новий вид для флори Республіки Молдова — *Salvia revelata*, шавлія понтійська. Це нещодавно описаний субендемік понтійських степів, який раніше помилково не відрізняли від подібного вікаріантного виду *S. austriaca*, шавлії австрійської. Під час польових досліджень протягом сезонів цвітіння виду у 2023–2025 рр. виявлено 12 локалітетів *S. revelata* в Республіці Молдова. На місцевості особини з квітками реєструвалися з першої третини травня до другої декади червня, але регіональні дані з сусідніх країн свідчать про те, що багаторічна мінливість погоди в умовах сучасних змін клімату може розширити цей часовий проміжок цвітіння виду. Типовими біотопами цього виду є флористично багаті степи, але кілька особин також було знайдено на лісових галявинах або на вирубках у термофільних дубових лісах. Під час досліджень було визначено основні загрози для збереження *S. revelata*, зокрема інтенсивне землеробство, надмірний випас худоби, занедбання пасовищ, інвазійні деревні види та ізоляція популяцій через фрагментацію біотопів. Для збереження шавлії понтійської та інших степових субендеміків у Республіці Молдова запропоновано й декілька інших рекомендацій, таких як припинення заліснення (особливо чужорідними видами), відновлення травяних екосистем та сприяння сталому випасу худоби.

Ключові слова: *Salvia revelata*, загрози, новий вид, поширення, степова рослинність, фенологія