

**SPECIES OF THE *ARTEMISIA* GENUS IN THE HERBARIUM
OF THE BOTANIC GARDEN “D. BRANDZA”,
UNIVERSITY OF BUCHAREST**

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Abstract: This study presents an assessment of the *Artemisia* collection at the BUC Herbarium of the University of Bucharest, which holds 324 specimens spanning 19 taxa collected over more than a century. The aim was to document and organize the collection, ensuring accurate taxonomic identification, correcting nomenclatural inconsistencies, and creating a digital database for improved accessibility. This work draws on the contributions of numerous historic collectors, enriching the collection's significance as a botanical and ecological resource. Through continued curation and digitization, the BUC Herbarium contributes essential data for taxonomic, ecological, and conservation research.

Keywords: vascular plants, Asteraceae family, scientific collection, BUC, Romania

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Introduction

The European vascular flora is estimated to comprise over 20,000 species (Lončarević et al. 2024), with Romania contributing around 3,830 taxa (19.14%), both native and introduced (Ciocârlan 2009). As floristic research advances, the diversity in Romania continues to expand, with new species for science and the national territory, updated distribution data, rediscoveries, and taxonomic revisions (Sîrbu & Oprea 2017, Mátis et al. 2023). A crucial element supporting this botanical knowledge lies in herbarium collections, which serve as taxonomic repositories and invaluable references for flora identification and classification.

The Herbarium of Botanic Garden “D. Brandza”, University of Bucharest (BUC), established in 1882, holds around 520,000 specimens (Thiers 2023). Recent digitization initiatives have aimed to make this collection more accessible (Urziceanu et al. 2017, 2018), facilitating its use in a wide range of scientific fields, including taxonomy, biogeography, and environmental studies (Besnard et al. 2018). Part of these modernization efforts involve evaluating and verifying the specimens within each collection, correcting taxonomic errors, and organizing them within the herbarium's broader collection framework.

The *Artemisia* genus, part of the Asteraceae family, is one of the largest and most taxonomically challenging genera, with an estimated 400 to 600 species globally (Christenhusz et al. 2017, Soni et al. 2022). This genus includes taxa ranging from

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widely distributed to regionally endemic, offering broad ecological and research relevance. Many of the species have traditional medicinal uses due to their abundant chemical compounds (e.g., *Artemisia annua*, from which artemisinin is extracted to treat malaria, *A. abrotanum*, *A. afra*, *A. cina*, *A. tilesii*, *A. tridentata*, *A. vulgaris*) or are used for flavouring food and drinks (e.g. *A. dracunculus*, *A. absinthium*, *A. glacialis*, *A. umbelliformis*, *A. pontica*) (Sîrbu & Oprea 2011), for ornamental purposes (e.g. *A. arborescens*, *A. lactiflora*) (Mabberley 2008) and even in the stabilization of desert soils (Sîrbu & Oprea 2011).

In Romania, *Artemisia* comprises 16 native species and subspecies, with notable taxa such as *A. absinthium*, *A. austriaca*, and *A. vulgaris* common across the country, while others, like *A. eriantha* and *A. lercheana*, are rare and protected under national and European legislation (OUG 57/2007, DC 92/43/EEC) (Table 1). Two taxa are considered extinct, according to Sîrbu et al. (2013): *Artemisia campestris* subsp. *alpina* and *A. pedemontana* (Table 1). *Artemisia annua*, a frequent species in Romania, has an ambivalent status being considered by some authors as either a native species (Ciocârlan 2009, Sîrbu et al. 2013, POWO 2024) or alien (Anastasiu et al. 2019), possibly an archaeophyte (Sîrbu & Oprea 2011).

This paper presents the *Artemisia* collection within BUC's vascular plant holdings, aiming to make the collection scientifically valuable by establishing the correct taxonomic identity, standardizing nomenclature, and systematically organizing the specimens. Through this work, we advance both the accessibility and scientific integrity of the *Artemisia* collection, contributing to ongoing botanical documentation and conservation research.

Material and methods

This study on the *Artemisia* collection in the Herbarium of the Botanic Garden “D. Brandza”, University of Bucharest (BUC), emerged from a focused effort by our team to validate, document, and organize the *Artemisia* specimens within BUC, enhancing both scientific accuracy and accessibility of the collection.

To achieve this, we examined each specimen, transcribing essential information from herbarium sheet labels, including details such as collection location (Country, region, county, locality, specific toponyms), habitat type, altitude, collection date, collector's and determiner's names, and the specimen's inventory number (BUC code). For labels with incomplete or illegible information, we noted the missing or unclear data. In some instances, toponyms could not be linked to a specific county, and these details were also documented. Each specimen was categorized alphabetically by taxon, country, county, and locality, supporting efficient sorting and searchability.

Taxonomic verification was crucial, as certain scientific names on labels required updating to align with current nomenclature. Taxonomic specimen identifications were confirmed using the Plants of the World Online (POWO 2024), alongside key Romanian taxonomic references such as Ciocârlan (2009) and Sîrbu et al. (2013). Any outdated or synonymic names on specimens were noted, with adjustments recorded in the final documentation.

The Discussion section includes analyses of the most represented taxa, conservation statuses, distribution patterns, and collector information. This study contributes directly to the ongoing digitization and modernization of the BUC Herbarium, improving its research utility and accessibility for wider academic and public engagement.

Table 1. List of species and subspecies of the genus *Artemisia*, native to Romania

No	Taxon name according to POWO (2024)	Taxon name according to Sárbu et al. (2013)	General native distribution according to POWO (2024)	OUG 57/2007	RL status	RB status	IUCN status
1.	<i>Artemisia absinthium</i> L.	<i>Artemisia absinthium</i> L.	Europe, Central, North and South Russia, Caucasus, The Middle East, North Africa	-	-	-	LC
2.	<i>Artemisia alba</i> Turra	<i>Artemisia alba</i> Turra	Europe, Northwest Africa	-	R	-	LC
3.	<i>Artemisia annua</i> L.	<i>Artemisia annua</i> L.	North Africa and Eurasia	-	-	-	NE
4.	<i>Artemisia austriaca</i> Jacq.	<i>Artemisia austriaca</i> Jacq.	North-Eastern Eurasia	-	-	-	NE
5.	<i>Artemisia campestris</i> L. subsp. <i>alpina</i> (DC.) Arcang. Arcang.	<i>Artemisia campestris</i> L. subsp. <i>alpina</i> (DC.) Arcang.	France, Italy, Romania, Switzerland	-	Ex	-	LC
6.	<i>Artemisia campestris</i> L. subsp. <i>campestris</i>	<i>Artemisia campestris</i> L. subsp. <i>campestris</i>	Europe, Russia, Caucasus, Iran, China, Algeria	-	-	-	LC
7.	<i>Artemisia campestris</i> L. subsp. <i>lednicensis</i> (Spreng.) Greuter & Raab-Straube	<i>Artemisia campestris</i> L. subsp. <i>lednicensis</i> (Spreng.) Greuter et Raab-Straube	Czech Republic, Slovakia, Germany, Hungary, former Yugoslavia	-	-	-	LC
8.	<i>Artemisia dzevanovskiyi</i> Leonova	<i>Artemisia dzevanovskiyi</i> Leonova	Romania, Ukraine, Crimea	-	-	-	NE
9.	<i>Artemisia eriantha</i> Ten.	<i>Artemisia eriantha</i> Ten.	Europe	Annex 5A	-	-	LC
10.	<i>Artemisia lercheana</i> Weber ex Stechm.	<i>Artemisia lerchiana</i> Stechm.	SE Europe, East Russia, Kazakhstan	Annex 4B	E/R	CR	NE
11.	<i>Artemisia marschalliana</i> var. <i>marschalliana</i>	<i>Artemisia ischernieviana</i> Besser	East Europe, North and Central Russia, Kazakhstan, Türkiye, Caucasus, China, Mongolia	-	E/R	EN	NE
12.	<i>Artemisia pedemontana</i> Balb.	<i>Artemisia pedemontana</i> Balb.	Bulgaria, Italy	-	Ex	VU	NE

No	Taxon name according to POWO (2024)	Taxon name according to Sârbu et al. (2013)	General native distribution according to POWO (2024)	OUG 57/2007	RL status	RB status	IUCN status
13.	<i>Artemisia pontica</i> L.	<i>Artemisia pontica</i> L.	Central-East Europe, North-East Russia, North Asia	-	-	-	NE
14.	<i>Artemisia santonicum</i> L. subsp. <i>patens</i> (Neilr.) K.Perss.	<i>Artemisia santonicum</i> L. subsp. <i>patens</i> K. M. Perss.	Austria, Bulgaria, Czech Republic, Slovakia, Hungary, Romania, former Yugoslavia	-	R	-	LC
15.	<i>Artemisia santonicum</i> L. subsp. <i>santonicum</i>	<i>Artemisia santonicum</i> L. subsp. <i>santonicum</i>	South-East Europe and Russia, Türkiye, Iran, Kazakhstan	-	-	-	LC
16.	<i>Artemisia scoparia</i> Waldst. & Kit.	<i>Artemisia scoparia</i> Waldst. et Kit.	Eurasia	-	-	-	NE
17.	<i>Artemisia trautvetteriana</i> Besser	<i>Artemisia trautvetteriana</i> Besser	Romania, Ukraine, Crimea	-	-	-	NE
18.	<i>Artemisia vulgaris</i> L.	<i>Artemisia vulgaris</i> L.	Eurasia, Indochina, North Africa	-	-	-	LC

Abbreviations: OUG – National Law OUG 57/2007, with the indication of Annexes; RL – Red List, Ex – Extinct, E/R – Endangered and Rare, R – Rare (Oltean et al. 1994); RB – Red Book, CR – Critically endangered, EN – Endangered, VU – Vulnerable (Dihoru & Negrean 2009); The IUCN Red List of Threatened Species, LC – Least concern, NE – Not evaluated (IUCN 2024).

Results

The following *Artemisia* specimens were identified in BUC collection:

1. *Artemisia abrotanum* L.

Romania:

- **Bucharest:** collector & determiner: Monica Badea [BUC400.620]
- **Ifov County:** Tâncăbești; 5 August 1962; collector: V. Diaconescu [BUC275.243, BUC275.242]

2. *Artemisia absinthium* L.

Moldova Republic:

- **Lăpușna District:** In ruderal habitats near Chișinău, altitude approx. 70 m, loess soil; 20 August 1937; collector & determiner: G. Bujorean [BUC247.082, BUC181.511]

Romania:

- **Argeș, Dragoslavele:** 9 August 2009; collector & determiner: Monica Badea [BUC399.635]
- **Bucharest:** Uncultivated areas; forest soil; collector: P. Enculesu [BUC376.100]
- **Dâmbovița, Gorgota:** Near fences, altitude 350 m; 12 July 1980 [BUC268.600]
- **Dolj, Bucovăț:** Roadside; 17 July 1971; collector & determiner: Petre Năzdrăvan (initially identified as *Artemisia austriaca*, later revised as *Artemisia absinthium*) [BUC342.931]
- **Dolj, Cornu:** In ruderal habitats, altitude approx. 150 m; 14 July 1972; collectors & determiners: D. and Mariana Cîrțu, I. Teodorescu [BUC282.880]
- **Galați County:** Near Tuluc at Galați; 22 July 1952; no collector specified; determiner: Prof. Al. Borza [BUC376.099]
- **Giurgiu, Comana:** 1 June 2015; determiner: Magdalena Andreica [BUC402.624]
- **Giurgiu, Găujani:** 30 May 2015; determiner: Magdalena Andreica [BUC402.626]
- **Giurgiu, Răsuceni:** 28 May 2015; determiner: Magdalena Andreica [BUC402.625]
- **Raiiești (location uncertain):** Pasture; determiner: Ecaterina Becheru [BUC363.022, BUC363.027]
- **Satu Mare, Acâș:** Near the railway, altitude approx. 138 m; 18 July 2012; collector: G. Negrean [BUC401.622]
- **Satu Mare, Necopoi:** In bushes, altitude 160 m; 4 September (year unspecified); determiner: V. Târnavăanu [BUC360.791, BUC360.792]

3. *Artemisia annua* L.

Romania:

- **Banatus, Severin District:** In ruderal habitats near the Orșova train station, altitude approx. 50 m; 19 September 1941; collectors: Al. Borza and Al. Buia [BUC181.518, BUC247.083]
- **Tulcea, Mihai Bravu:** 18 September 2010; collector: Monica Badea; determiner: Vasile Ciocârlan [BUC399.638]
- **Bucharest, Șos. Kiseleff:** Through yards and near fences; 14 September 1941; collector: I. Morariu [BUC340.154]
- **Bucharest:** Gardens; altitude 80 m; 20 September 1919; collector: P. Enculescu [BUC302.691, BUC302.692]

- **Buzău:** Ruderal places, altitude approx. 101 m; 19 July 2013; collector: Eliza Oprea; determiners: Gabriela Pascale and Ioana Marinas [BUC400.631]
- **Fundeni:** Near the lake shore; collector: Th. Iordan [BUC271.986, BUC271.987]
- **Tulcea, Mihai Bravu:** 1 June 2015; determiner: Magdalena Andreica [BUC402.622]
- **Moldavia, Iași District:** In Ghica Vodă Park, altitude approx. 80 m; 26 October 1969; collector & determiner: A. Kovacs [BUC283.754, BUC283.755]
- **Muntenia, Ilfov District:** In ruderal habitats near the Dâmbovița River (location “Moara Ciurel”), Bucharest, altitude approx. 80 m; 13 September 1941; collector & determiner: I. Morariu [BUC346.795, BUC181.519, BUC247.084]
- **Giurgiu, Remuș:** 24 May 2015; determiner: Magdalena Andreica [BUC402.623]
- **Cluj, Turda:** 11 September 2010; collector & determiner: Monica Badea [BUC400.623]

4. *Artemisia arenaria* DC. f. *bujoreani* Borza f.n.

Moldova Republic:

- **Cetatea Albă District:** In sandy habitats near the Black Sea (Pontus Euxinus), close to the village of Budachi, at the mouth of the Tyra River, altitude approx. 3 m; 5 August 1939; collector: G. Bujorean [BUC181.513, BUC247.086]

5. *Artemisia austriaca* Jacq.

Algeria:

- **Glacisurile Atlasilor Litoral:** Marly-calcareous soils, altitude approx. 750 m; 20 April (year unspecified); collector & determiner: Șipoș Florica [BUC266.710]

Romania:

- **Bacău, Ciumașu:** Along the roadside; 22 September 1908; collector: P. Enculescu [BUC274.183, BUC274.184, BUC274.185, BUC274.186]
- **Brăila:** July 1974; collector: I. Botnariuc [BUC282.426]
- **Brăila:** Roadside; July 1994; collectors: S. Ghiță; determiner: S. Lițescu [BUC371.685]
- **Brăila, Lacul Ianca:** 11 September 1952; collector: Gh. Turcu [BUC274.149, BUC274.150]
- **Brăila, Martinești – Gulianca:** 24 August 1949; collector & determiner: Ioan Șerbănescu [BUC274.147, BUC274.148]
- **Bucharest:** 6 September 2010; collector & determiner: Monica Badea [BUC399.634]
- **Bucharest:** Botanic Garden, Flora of Dobrogea; 11 November 1962; collector: A. Dănescu [BUC363.146, BUC363.147]
- **Bucharest:** Dry places along the roadside; 3 August 1903; collector: P. Enculescu [BUC274.163, BUC274.164, BUC274.165, BUC274.168]
- **Bucharest:** Pantelimon; Steppe; 2 August 1954; collector & determiner: Al. Borza [BUC311.808]
- **Bucharest:** Podul Budești; Grazing land; 16 June 1954; collector & determiner: Al. Borza [BUC311.806, BUC311.807]
- **Buzău, Nucu (?):** Grazing land; 8 August 1947; determiner: Ioan Șerbănescu [BUC274.181, BUC274.182]

- **Buzău, Putreda, Grebănu:** 1 September 1948; collector & determiner: Ioan Șerbănescu [BUC274.201, BUC274.202, BUC274.203]
- **Buzău, Râmnicu Sărat:** Dealul... (indecipherable); 30 September 1948; collector & determiner: Ioan Șerbănescu [BUC274.833, BUC274.835]
- **Buzău, Râmnicu Sărat:** Movila Flocoasa; 20 September 1948; collector & determiner: Ioan Șerbănescu [BUC274.832]
- **Buzău, Râmnicu Sărat:** Roata forest; Meadow; 18 September 1948; collector & determiner: Ioan Șerbănescu [BUC274.195]
- **Buzău, Râmnicu Sărat:** Vernescu Forest; 25 September 1948; determiner: Ioan Șerbănescu [BUC274.154, BUC274.155]
- **Constanța, Mangalia:** Sandy dunes, altitude approx. 4-5 m; 4 August 1912; collector: P. Enculescu [BUC274.152, BUC274.153]
- **Constanța, Techirghiol Movilă:** 30 August 1928; collector: P. Enculescu [BUC274.160, BUC274.161, BUC274.162, BUC274.167, BUC274.169]
- **Dâmbovița, Corbii Mari:** 30 September 2009; collector: Monica Badea; determiner: Vasile Ciocârlan [BUC399.637]
- **Galați, Cuca:** Grazing land; 19 August 1952; determiner: Prof. Al. Borza [BUC274.204]
- **Galați, Cuca:** Steppe; 19 July 1952; determiner: Prof. Al. Borza [BUC274.192]
- **Galați, Filești:** Steppe; 21 July 1952; determiner: Prof. Al. Borza [BUC274.179, BUC274.180]
- **Galați, Fârtănești:** Steppe; 18 August 1952; determiner: Prof. Al. Borza [BUC274.205, BUC274.206, BUC274.207, BUC274.208]
- **Galați:** Gârboavele Forest; 22 July 1952; collector & determiner: Prof. Al. Borza [BUC274.150]
- **Galați, Independența:** Siret River floodplain; 6 September 1952; determiner: Prof. Al. Borza [BUC274.187, BUC274.188]
- **Galați, Jorăști, Zărnești forest:** 13 September 1952; determiner: Prof. Al. Borza [BUC274.178]
- **Galați, Onciu:** Grazing land; 10 August 1952; determiner: Prof. Al. Borza [BUC274.197, BUC274.198, BUC274.199, BUC274.200]
- **Galați, Târgu Bujor:** Valea Covurluiului; 15 September 1952; determiner: Prof. Al. Borza [BUC274.176, BUC274.177]
- **Galați, Tulucești:** Steppe; 5 August 1952; determiner: Prof. Al. Borza [BUC274.156, BUC274.189, BUC274.190, BUC274.191]
- **Giurgiu, Comana:** Călniște forest; Meadow; 6 May 1954; collector & determiner: Al. Borza [BUC344.175, BUC344.176, BUC344.177, BUC344.178]
- **Giurgiu, Comana:** 1 January 2015; determiner: Magdalena Andreica [BUC402.620]
- **Gorj, Valea Gilortului:** In forests near Ceplea, altitude approx. 245 m; 21 September 1966; collector & determiner: Zaharia C. Ilie [BUC175.587]
- **Iași, Deleni:** 4 September 1953; determiner: Prof. Al. Borza [BUC274.175]
- **Ialomița:** Călugăreasca forest; 23 September 1951; determiner: Ioan Șerbănescu [BUC274.170, BUC274.171, BUC274.172, BUC274.173, BUC274.174, BUC344.252, BUC344.253, BUC344.254]

- **Ialomîța, Drăgoești – Măritița:** Slightly dry slope; 24 September 1951; collector & determiner: Gh. Turcu [BUC274.145]
- **Ialomîța, Frumușica:** Valea Pârlita; 21 September 1951; determiner: Ioan Șerbănescu [BUC274.158, BUC274.159]
- **Ialomîța, Hagieni:** Steppe; 21 August 1909; collector: P. Enculescu [BUC274.166]
- **Ilfov, Cozieni:** Pustnicu forest; Meadow; 14 July 1954; collector & determiner: Al. Borza [BUC267.238]
- **Ilfov:** Lunca Sabarului; (date unspecified); collector & determiner: Ioana Radu [BUC342.845, BUC342.846]
- **Ilfov, Glod - Miloșești:** Steppe; 2 September 1954; collector & determiner: Al. Borza [BUC283.337, BUC283.340]
- **Ilfov, Miloșești:** La Heleșteu – grazing land; 2 September 1954; collector & determiner: Al. Borza [BUC283.338, BUC283.339, BUC283.340]
- **Ilfov, V. Drăgoești:** 17 September 1951; collector & determiner: Ioan Șerbănescu [BUC274.828, BUC274.829]
- **Ilfov, Vidra District:** 6 May 1954; determiner: Al. Borza [BUC344.176, BUC344.177, BUC344.178]
- **Muntenia, Ilfov District:** In dry grassy areas near Bucharest, close to Băneasa, altitude approx. 85 m; 3 September 1942; collector & determiner: I. Morariu [BUC181.514, BUC248.087]
- **Muntenia, Ilfov District:** In dry grassy areas near Bucharest, close to Băneasa, altitude approx. 85 m; 3 September 1942; collector & determiner: I. Morariu [BUC319.661, BUC247.087, BUC263.424]
- **Măcin Mountains:** June 1974; collector: I. Botnariuc [BUC282.431]
- **Suceava, Sălăgeni:** Prut River floodplain: Along roadsides; 3 September 1917; collector: P. Enculescu [BUC274.144]
- **Tulcea, Agighiol:** Technological platform of wind turbine CC03; 21 August 2018; collector: Paulina Anastasiu [BUC408.637]
- **Tulcea, Niculițel:** Steppe; 27 August 1952; determiner: Prof. Al. Borza [BUC274.193, BUC274.194]
- **Tulcea, Niculițel:** Valea Cîric; 28 July 1952; collector & determiner: Al. Borza [BUC274.157, BUC274.196]
- **Vrancea, Șușita, Satul Nou, Putna:** 13 September 1950; collector & determiner: Ioan Șerbănescu [BUC274.146]

6. *Artemisia campestris* L.

Czech Republic:

- **Central-Southern Moravia, Brno:** In grassy areas on the southwestern slope of Hady Hill (elevation 423 m), above the suburb of Brno-Malomerice, loess soil on a limestone substrate, altitude approx. 320 m; 8 October 1974; collector: J. Vicherek [BUC247.662, BUC247.663, BUC247.664]
- **Southeastern Moravia, Breclav District:** In substeppe grassy areas on the southern slope of Kamenny vrch Hill (elevation 344 m), approx. 1.5 km southwest of the village of Kurdejo, near the town of Hustopece, altitude approx. 320 m; 25 September 1975; collectors: S. Blecha & J. Vicherek [BUC247.660, BUC247.660]

Romania:

- **Alba, Blaj:** Dealul Crucii; In steppic hills, clay and dacite tuff soil, altitude approx. 320 m; 18 September 1920; collector: Al. Borza [BUC247.088, BUC247.089, BUC309.333]
- **Alba, Lancrăm:** In sandy areas near the Secaş River; 15 August 1950; collector: Al. Borza [BUC376.790, BUC376.791]
- **Constanța, Băneasa NW:** supra Lacum Yortmac; In grassy areas, 44°06'53.06"N, 27°08'26.17"E, altitude approx. 87 m; 3 May 2012; collector: G. Negrean [BUC402.597]
- **Constanța, Hârșova:** On the loess cliffs of the Danube; loess soil; 22 August 1912; collector: P. Enculescu [BUC376.073]
- **Constanța, Negureni:** Valea Negurenilor; Near the riverbank, 44°07'43.58"N, 27°45'12.13"E, altitude approx. 45 m; 28 April 2013; collector: G. Negrean [BUC402.742]
- **Dolj, Desa (Calafat District):** 14 July 1949; collector & determiner: I. Șerbănescu [BUC376.077]
- **Dolj, Dăbuleni:** Gura Jiului; Sand dunes, no altitude specified; 10 November 1953; collector: Ioan Șerbănescu [BUC376.080]
- **Galați, Mândrești:** Pârlești Forest; 24 August 1952; determiner: Al. Borza [BUC376.097]
- **Giurgiu, Comana Forest (Vidra District, Bucharest Region):** 5 May 1954; determiner: Al. Borza [BUC344.173]
- **Ialomița, Valea Pârlita, Frumușica:** 21 September 1951; collector & determiner: Ioan Șerbănescu [BUC376.083]
- **Mehedinți, Vrata:** Sand dunes; 15 July 1950; collector: I. Șerbănescu [BUC302.684, BUC302.685, BUC302.686]
- **Neamț, Cozla Hill near Piatra Neamț:** In dry slopes of the hill; 12 September 1922; collector & determiner: G.P. Grințescu [BUC247.089]
- **Neamț, Piatra Neamț:** Dealul Pietricica; Rocky slopes on Stejeriș; 9 September 1957; collector: I. Morariu [BUC340.188]
- **Sălaj, Moigrad-Porolissum E, Măgura Moigrad:** At the quarry, 47°11'29.14"N, 23°09'16.46"E, altitude approx. 438 m; 18 September 2013; collectors: G. Negrean & P. Szatmari [BUC402.754]
- **Sălaj, Recea S:** Dealul Pustiu; 47°11'03.37"N, 22°57'05.99"E, altitude approx. 342 m; 11 May 2013; collector: G. Negrean [BUC402.738]
- **Sălaj, Tămașa:** Steep slopes, 46°57'01.91"N, 23°10'30.91"E, altitude approx. 395 m; 20 May 2014; collector: G. Negrean [BUC403.012]
- **Sibiu, Gușterița:** 19 August 1950; collector: M. Gușuleac [BUC319.663]
- **Tecuci, Hanu Conachi:** Sand dunes; 18 August 1950; determiner: I. Șerbănescu [BUC302.687]
- **Tulcea:** Grindul Letea; Sand, marine dunes; 8 September 1912; collector: P. Enculescu [BUC376.074]
- **Vrancea, Pădurea Neagră (Focșani District):** Gravelly soil; 15 September 1950; collector: Ioan Șerbănescu [BUC376.078, BUC376.079]

7. *Artemisia campestris* subsp. *glutinosa* (J.Gay ex Besser) Batt. (as *Artemisia glutinosa* J.Gay ex Besser)

Libya:

- **Tripolitania, Kabila Forgian, Sirke:** Altitude 50 ft; 6 February 1961; Shrub. Comm. H.G. Keith [BUC170.543]

8. *Artemisia campestris* L. f. *lednicensis* Roch

Romania:

- **Galați, Liești:** Flying sand at Hanul Conachi; 24 July 1952; collector: Prof. Al. Borza; revised by: Prodan [BUC376.098]
- **Galați, Rozor Sintești-Crețești:** Pasture; 25 May 1954; collector & determiner: Al. Borza [BUC264.028]

9. *Artemisia campestris* L. var. *lednicensis* (Roch.) Lav.

Romania:

- **Vaslui, Miclești:** On the dry slopes of Plopi Hill near the village of Miclești, altitude approx. 200 m; 13 August 1970; collector & determiner: C. Dobrescu [BUC283.756]

10. *Artemisia caerulescens* subsp. *gallica* (Willd.) (as *Artemisia gallica* Willd.)

Spain:

- **Menorca, Ciudadela, near Santandria:** 29 August 1957; collector: Dr. Höpflinger [BUC319.664, BUC319.665]

11. *Artemisia dracunculus* L.

Romania:

- **Bucharest:** 13 August 2009; collector & determiner: Monica Badea [BUC400.621]
- **Maramureș, Măgherauș:** 27 September 1954; collector: Ioan Șerbănescu [BUC376.101]

12. *Artemisia herba-alba* Asso

Algeria:

- **High Plateaus:** Marly-calcareous soils, altitude approx. 950 m; 25 November 1972; collector & determiner: Șipoș Florica [BUC266.709]

13. *Artemisia pontica* L.

Bulgaria:

- **Dobrogea, Yaila:** Near the Black Sea coast, in grassy areas, altitude approx. 12 m; 19 July 2008; collector: G. Negrean [BUC402.630]

Czech Republic:

- **Moravia, Strážnice:** On the slopes of Zerotin Hill, near the edges of vineyards, altitude approx. 250 m; 14 August 1948; collector: J.J. Edlicka [BUC346.785, BUC346.786, BUC346.787]

Romania:

- **Alba, Blaj:** Steppic hills near forests, clay soil, altitude approx. 440 m; 19 September 1920; collector: Al. Borza [BUC309.337, BUC309.338, BUC309.339, BUC247.092, BUC247.093]
- **Alba, Sebeș:** Steppic areas above "Râpa Roșie"; 5 September 1950; collector: Al. Borza [BUC376.789]
- **Buzău, Crângul Meilor, Râmnicu Sărat:** 16 September 1948; determiner: Ioan Șerbănescu [BUC265.805, BUC265.806]
- **Buzău, Colintiru (?):** 18 August 1947; determiner: Ioan Șerbănescu [BUC265.785, BUC265.786]
- **Caraș-Severin, Moldova Veche:** In sandy and grassy areas on Ostrov Island, altitude approx. 90 m; 24 September 1968; collectors & determiners: I. Morariu, P. Ularu, and M. Danciu [BUC320.685, BUC320.688, BUC320.687].
- **Dolj, Craiova, Ghercești:** In dry pastures, altitude approx. 150 m; 11 September 1970; collectors: M. Păun, Gh. Popescu [BUC320.686, BUC320.684, BUC371.587]
- **Dolj, Via Mare:** 18 August 1948; determiner: Ioan Șerbănescu [BUC265.783, BUC265.784].
- **Giurgiu, Comana, Lunca Neajlovului:** In salty areas, 44°11'47.30"N, 26°09'08.13"E, altitude approx. 46 m; 2 September 2013; collector: G. Negrean [BUC401.619]
- **Giurgiu, Grădiștea, Lunca Argeșului:** Lightly salted soils; 10 September 1938; collector: P. Enculescu [BUC265.787, BUC265.788, BUC265.789, BUC265.790, BUC265.791, BUC265.792]
- **Galați, Tulucești:** Steppe area; 5 August 1952; determiner: Prof. Al. Borza [BUC265.803, BUC265.804]
- **Galați, Tg. Bujor:** Near the Pietroasa forest; 15 September 1952; determiner: Prof. Al. Borza [BUC265.807, BUC265.808, BUC265.809]
- **Ialomița, Movila Vacilor:** 1 July 1972; collector: Ioniță Marin [BUC284.158]
- **Ialomița, Slobozia:** 4 October 2009; collector: Monica Badea; determiner: Vasile Ciocârlan [BUC400.624]
- **Ialomița:** Pădurea Brăți; 22 September 1951; determiner: Ioan Șerbănescu [BUC265.800, BUC265.799, BUC265.802, BUC265.801]
- **Mehedinți:** Pădurea Broscari; 17 August 1950; determiner: Ioan Șerbănescu [BUC265.793, BUC265.794, BUC265.795, BUC265.796]
- **Prahova, Gorâni, Odăile Commune:** 13 August 1947; determiner: Ioan Șerbănescu [BUC265.797, BUC265.798]
- **Prahova, Valea Lapoș:** In grassy areas, 45°08'13.31"N, 26°16'57.60"E, altitude approx. 332 m; 26 July 2014; collector: G. Negrean [BUC402.629]
- **Satu Mare, Moftinul Mic NW:** In grassy areas, 47°41'49.70"N, 22°36'46.24"E, altitude approx. 113 m; 18 July 2012; collector: G. Negrean [BUC401.561]
- **Timiș, Banloc:** Cultivated areas; 21 April 1948; collector: Al. Borza [BUC171.440]

14. *Artemisia santonicum* L. subsp. *santonicum***România:**

- **Bihor, Salonta:** Grazing land; 15 May 1962; determiner: Ioan Șerbănescu [BUC263.422, BUC263.423].

- **Bihor County**, on the road from Salonta to Marțihaz: Semi-salty soil; 2 August 1950; collector: Ion Pop [BUC176.405] (identified as *Artemisia maritima* L.)
 - **Brașov, SE of Predeal, Sărari**: Salty areas near Predeal-Sărari, Teleajen District, Ploiești Region; 18 August 1961; determiner: Ioan Șerbănescu [BUC263.420] (identified as *Artemisia maritima* L.)
 - **Buzău, Berca**: Near the Vulcanii Noroioși, 45°21'00.20"N, 26°42'28.21"E, altitude approx. 272 m; 16 July 2013; collector: G. Negrean (GN 20.311) [BUC401.621]
 - **Giurgiu, Comana N, Lunca Neajlovului**: In salty areas, 44°11'47.30"N, 26°09'08.13"E, altitude approx. 46 m; 2 September 2013; collector: G. Negrean (GN 20.344) [BUC401.620]
 - **Ialomîța, Adâncata**: Rodeanu Lake; 20 September 1959; collector & determiner: N. Roman [BUC263.414, BUC263.415, BUC263.416, BUC263.417] (identified as *Artemisia maritima* L.)
 - **Ialomîța, Silișteea, Cotorca**: Salty soils known as "Cotorceanca" altitude approx. 75 m; 26 September 1923; collector: G. P. Grințescu [BUC181.517, BUC346.774, BUC346.775, BUC346.776] (identified as *Artemisia salina* subsp. *monogyna*)
 - **Olt, Balș**: In the valley of the Olteț river, between Balș and Comănești, altitude approx. 120 m; 17 September 1963; collector: M. Păun [BUC316.175]
 - **Prahova, Mizil, Călugăreni**: saline areas with muddy springs called "Pâcle"; 18 September 1959; determiner: Gh. Turcu [BUC263.413, BUC263.418, BUC263.419] (sub *Artemisia maritima* L.)
 - **Prahova, Slănic**: Salty areas; 1 October 2009; collector: Monica Badea; determiner: Vasile Ciocârlan [BUC399.628]
 - **Prahova, Valea Turburea**: Salty areas; 18 July 1961; determiner: Ioan Șerbănescu [BUC263.421] (identified as *Artemisia maritima* L.)
 - **Prahova, Slănic**: Salty areas in Slănic; 28 August 1977; determiner: Vasilica Rusea [BUC321.122]
 - **Cluj, Cluj**: In dry grasslands on steep slopes known as "Șanțu Turcului," near Cluj, altitude approx. 400 m; 11 October 1920; collector: M. Peterfi [BUC181.516, BUC346.782, BUC346.783, BUC346.784] (identified as *Artemisia salina* subsp. *monogyna*)
 - **Cluj, Cojocna**: In saline clay soils, altitude approx. 350 m; 11 October 1920; collectors: Al. Borza & M. Peterfi [BUC309.340, BUC309.341, BUC309.342] (identified as *Artemisia santonicum* var. *monogyna*)
 - **Dolj, Bratovoiești**: Salty areas at the edge of Bratovoiești Forest, near the village of Bratovoiești, altitude approx. 65 m; 3 September 1970; collectors: M. Păun, Gh. Popescu, Liana Georgescu, Gh. Fulga [BUC371.618, BUC371.619, BUC319.666, BUC319.667, BUC319.668] (identified as *Artemisia maritima* L.)
 - **Ifov, Reg. București, Rai. Vidra**: Salty areas near Mitoșești Lake; 2 September 1954; determiner: Al. Borza [BUC344.170, BUC344.171, BUC344.172] (identified as *Artemisia maritima* L.)
 - **Valea Trestichii, Canal**: 17 August 1972; collector: Ioniță Marin [BUC284.206] (identified as *Artemisia salina* subsp. *monogyna*)
- France:**
- **Arles**: Salt flats near Saintes-Maries in the Camargue; 7 September 1957; collector: Dr. Höpflinger [BUC319.669] (identified as *Artemisia maritima* L.)

15. *Artemisia scoparia* Waldst. & Kit.**Romania**

- **Alba, Blaj:** Clayey and humus-rich soil in ruderal areas near vineyards; altitude approx. 300 m; 18 September 1920; collector: Al. Borza [BUC247.094, BUC247.095, BUC309.343, BUC309.344]
- **Brăila, Rușețu:** Very common in steppes; 28 August 1906; collector: P. Enculescu [BUC302.694]
- **Dolj, Ciuperceii Noi:** 15 July 1949; collector & determiner: Ioan Șerbănescu [BUC302.681, BUC302.682]
- **Galați, Barboși:** Near the train station; 8 September 1952; determiner: Al. Borza [BUC274.209, BUC274.210]
- **Gorj, Capu Dealului:** At the confluence of the Gilort and Jiu rivers; 18 July 1951; determiner: Al. Borza [BUC302.675, BUC302.676]
- **Gorj, Miericeaua, Crușet Commune:** Sandy areas; 13 August 1948; collector & determiner: Ioan Șerbănescu [BUC302.680]
- **Gorj, Strehaia:** Motru Valley; 4 August 1951; determiner: Al. Borza [BUC302.677, BUC302.678]
- **Gorj, Turceni:** Ceglii Valley; 30 July 1951; determiner: Al. Borza [BUC302.679]
- **Ialomița, Fierbinți:** Sandy areas near the Ialomița River; 18 September 1951; determiner: Gh. Turcu [BUC302.671, BUC302.672, BUC302.673]
- **Ifov, near the Hereasca Forest:** Along the Ialomița River, sandy soil; no altitude recorded; 5 October 1948; collector: I. Morariu [BUC340.176]
- **Ifov, Crivaț:** Riparian forest, Nicolae Island; 5 August 1954; determiner: Al. Borza [BUC267.239]
- **Ifov, Căscioare:** Tufele Grecului Forest; 2 September 1938; collector: P. Enculescu [BUC302.674]
- **Ifov, Hotarele:** Riparian forest; 4 August 1954; determiner: Al. Borza [BUC267.240, BUC267.241]
- **Olt, Balș:** In the valley of the Olteț Stream, between Balș town and Comănești village; altitude approx. 120 m; 17 September 1963; collector: M. Păun [BUC176.492, BUC316.175]
- **Tulcea, Mahmudia:** 16 September 2010; collector: Monica Badea; determiner: Vasile Ciocârlan [BUC400.622]

16. *Artemisia tournefortiana* Rchb.**Czech Republic:**

- **Central-southern Moravia, Brno:** In ruderal areas near Vinohradská Street in the suburb of Brno-Černovice, approx. 220 m; 7 October 1974; collector: F. Grüll [BUC247.665]

17. *Artemisia eriantha* Ten.**Romania**

- **Brașov,** Bucegi Mountains, Omu, Valea Cerbului: July 1983; collector & determiner: G. Nedelcu, M. Busuioc [BUC336.236; BUC336.237; BUC336.238] (as *A. petrosa*)

- **Braşov**, Bucegi Mountains, Ialomiţa Valley: Grassland, 1700 m; 20 August 1987; collector & determiner: Buculei Paulina [BUC375.380] (as *A. petrosa*)
- **Braşov**, Bucegi Mountains, Caraiman: 4 August 1941; collector & determiner: I. T. Tarnavschi [BUC342.363, BUC342.364] (as *A. petrosa*)
- **Sibiu**, Făgăraş Mountains, Bâlea Cirque: 27 September 1956; determiner: A. Paucă [BUC275.240, BUC275.241] (as *A. baumgartenii*)
- **Sibiu**, Făgăraş Mountains, above Bâlea Lake: Schist soil, altitude approx. 2100 m; 19 August 1912; collector: C. Gürtler [BUC247.091, BUC304.336] (as *A. petrosa* (Baumg.) Jan. subsp. *carpatica*)

18. *Artemisia vulgaris* L.

Romania:

- **Bacău, Măgura**: In ruderal areas within *Ivaetum xanthiifoliae* association; altitude approx. 300 m; 22 August 1970; collector & determiner: N. Barabaş, D. Mititelu [BUC346.789]
- **Bacău, Măgura**: In ruderal areas within *Ivaetum xanthiifoliae* association; altitude approx. 300 m; 22 August 1970; collector & determiner: N. Barabaş, D. Mititelu [BUC261.029]
- **Bihor, Lugoşu de Jos**: Meadow on the southern slope; 380 m; 13 July 1969; collector & determiner: Marcela Neacşu [BUC249.800]
- **Braşov, Stupini, Țara Bârsei**: 7 August 1956; collector: I. Morariu [BUC264.227]
- **Cluj, Cluj District, near the Someş Valley**: Ruderal areas near Cluj town; altitude approx. 350 m; 9 August 1937; collector: G. Bujorean [BUC247.096]
- **Cluj, Cluj District, near the Someş Valley**: Ruderal areas near Cluj town; altitude approx. 350 m; 9 August 1937; collector: G. Bujorean [BUC181.510]
- **Dâmbovița, Corbii Mari**: 6 August 2009; collector: Badea Monica; determiner: Vasile Ciocârlan [BUC399.636]
- **Dâmbovița, Gorgota**: Near fences; 350 m; 15 August 1980; collector: Georgescu Marian [BUC268.601]
- **Giurgiu, Bălănoaia**: 16 May 2015; determiner: Andreica Magdalena [BUC402.619]
- **Giurgiu, Giurgiu**: 23 May 2015; determiner: Andreica Magdalena [BUC402.618]
- **Giurgiu, Malu**: 23 May 2015; determiner: Andreica Magdalena [BUC402.617]
- **Prahova, Slănic**: Salty areas; collector & determiner: Rusea Vasilica [BUC321.070]
- **Satu Mare, Necopoi**: Bushy areas; altitude 160 m; 4 September; collector: Târnoveanu Viorica [BUC266.902]
- **Timiș, Berini**: Along roadsides and crop fields; 100 m; 20 May 1978; collector & determiner: Györgyjakab Maria [BUC375.897]

Russia:

- **Karelia Isthmus, Muolaa, Perkjärvi**: Fennoscandia orientalis, Isthmus Karelicus; Near the railroad; 22 July 1936; collector: Sulo Cantell [BUC171.249]

Nepal:

- **Karkigaun**: Altitude 1150 m, on open slope; collector: O. Bojor & D.P. Joszi; determiner: I. Sharm (partially indecipherable) [BUC285.476] Note: Marked as a “Centennial Donation” on the label from the Department of Medicinal Plants, Kathmandu, Nepal (Fig. 1).

18. *Artemisia* × *jaeggiana* F.O.Wolf

Switzerland

- Valais, near Granges on the way to Lens: On gypsum rocks; 3 August 1890; collector: F.O. Wolf [BUC175.345].

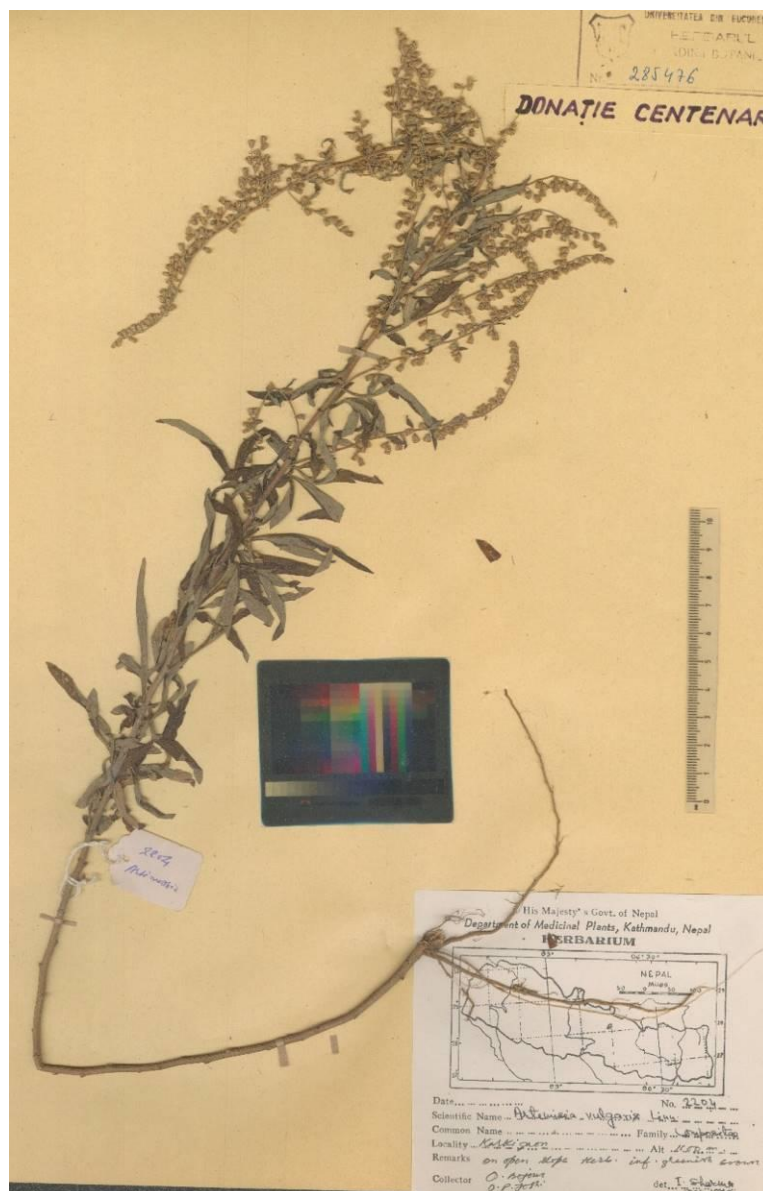


Fig. 1. Herbarium specimen of *Artemisia vulgaris*, collected in Nepal and donated to Botanic Garden “D. Brandza” for the centennial anniversary.

Discussion

The *Artemisia* collection in the BUC herbarium highlights significant variation in representation across different taxa (Table 2). The most abundantly represented taxon is *Artemisia austriaca* Jacq., with an impressive 107 specimens, indicating its wide distribution or significant collection interest. Other well-represented taxa include *Artemisia pontica* L. with 49 specimens, *Artemisia santonicum* L. subsp. *santonicum* with 38 specimens, and *Artemisia campestris* L. with 31 specimens. These taxa seem to have been collected extensively, possibly due to their ecological importance or abundance in certain regions.

Table 2. Identified *Artemisia* taxa and corresponding number of specimens in the BUC collection

No.	Taxa	Number of specimens
1	<i>Artemisia abrotanum</i> L.	3
2	<i>Artemisia absinthium</i> L.	16
3	<i>Artemisia annua</i> L.	16
4	<i>Artemisia arenaria</i> DC. f. <i>bujoreani</i> Borza f.n.	2
5	<i>Artemisia austriaca</i> Jacq.	107
6	<i>Artemisia campestris</i> L.	31
7	<i>Artemisia campestris</i> subsp. <i>glutinosa</i> (J.Gay ex Besser) Batt.	1
8	<i>Artemisia campestris</i> L. f. <i>lednicensis</i> Roch	2
9	<i>Artemisia campestris</i> L. var. <i>lednicensis</i> (Roch.) Lav.	1
10	<i>Artemisia caerulescens</i> subsp. <i>gallica</i> (Willd.)	2
11	<i>Artemisia dracunculus</i> L.	2
12	<i>Artemisia herba-alba</i> Asso	1
13	<i>Artemisia pontica</i> L.	49
14	<i>Artemisia santonicum</i> L. subsp. <i>santonicum</i>	38
15	<i>Artemisia scoparia</i> Waldst. & Kit.	26
16	<i>Artemisia tournefortiana</i> Rchb.	1
17	<i>Artemisia eriantha</i> Ten.	10
18	<i>Artemisia vulgaris</i> L.	15
19	<i>Artemisia</i> × <i>jaeggiana</i> F.O.Wolf	1
Total of specimens		324

On the other hand, several taxa are underrepresented in the collection, with only one or two specimens each. These include *Artemisia campestris* subsp. *glutinosa* (J.Gay ex Besser) Batt., *Artemisia campestris* L. var. *lednicensis* (Roch.) Lav., *Artemisia tournefortiana* Rchb., *Artemisia herba-alba* Asso, and *Artemisia* × *jaeggiana* F.O.Wolf, all of which have only one specimen. This limited representation suggests either their rarity, more specialized habitat, or lower collection focus in the studied region.

Two herbarium specimens labelled as *Artemisia canariensis* and *A. atlantica* have been revised as *Helichrysum litoreum* [BUC266.707] and, respectively, *Phagnalon saxatile* [BUC266.710].

According to the conservation status indicated in the national Red Lists or Red Book, no taxa from the collection are currently included in these documents. However, we can note that four taxa are listed in the IUCN Global Red List with varying

conservation statuses: *Artemisia absinthium* – LC (Khela 2012), *Artemisia campestris* – LC (Bilz 2012), *Artemisia santonicum* subsp. *santonicum* – LC (Khela 2012), *Artemisia vulgaris* – LC (Khela 2012).

The *Artemisia* taxa in the BUC collection show a wide geographic range, with specimens collected from Europe, Africa, and Asia. Most of the specimens come from Europe, particularly from Romania, but there are also notable collections from Moldova Republic, Bulgaria, Czech Republic, France, Spain, and Switzerland. For instance, *Artemisia absinthium* L. is represented by specimens from both Romania and Moldova Republic, while *Artemisia campestris* L. has specimens from Romania and the Czech Republic. Additionally, *Artemisia caeruleascens* subsp. *gallica* originates from Spain, and *Artemisia* × *jaeggiana* F.O.Wolf is represented by a single specimen from Switzerland.

From Africa, the collection includes *Artemisia herba-alba* Asso, with a specimen from Algeria, and *Artemisia campestris* subsp. *glutinosa*, collected in *Libya*. The only specimen from Asia comes from Nepal, represented by *Artemisia vulgaris* L., highlighting the broad geographic adaptability of the genus across different climatic zones.

Within Romania, the *Artemisia* taxa show significant distribution across various regions, with the majority of specimens originating from Muntenia, Dobrogea, and Transylvania.

Bucharest and Ilfov County have the highest number of collected specimens, including multiple taxa such as *Artemisia abrotanum* and *Artemisia absinthium*.

In Dolj County, species like *Artemisia absinthium* and *Artemisia pontica* are well-represented, collected from locations such as Bucovăț and Ghercești.

Galați County also stands out, with several collections of *Artemisia austriaca* and *Artemisia pontica*, particularly from areas like Gârboavele Forest and Tulucești.

Buzău County contributes significantly to the collection, with specimens of *Artemisia austriaca*, *Artemisia pontica*, and *Artemisia santonicum* subsp. *santonicum* collected from localities such as Râmnicu Sărat and the Crângul Meilor etc.

In Transylvania, *Artemisia campestris* and *Artemisia vulgaris* are commonly found, with specimens from Blaj in Alba County and Cluj-Napoca in Cluj County.

Overall, Muntenia (particularly Bucharest, Ilfov, and Dolj), Dobrogea (such as Tulcea and Constanța), and Transylvania are the regions with the most frequently collected specimens, reflecting their diverse habitats from steppe regions to forested and ruderal environments.

The oldest specimen in the *Artemisia* collection at the BUC Herbarium is *Artemisia* × *jaeggiana*, collected by F.O. Wolf in 1890 from Switzerland. This specimen is the earliest record in the collection, providing historical insight into the genus outside Romania. Within Romania, the earliest collected specimen is *Artemisia austriaca*, collected in 1903 from Bucharest by P. Enculescu. Other early specimens include *Artemisia scoparia* collected from Rușețu, Brăila, in 1906 by the same collector, and *Artemisia absinthium* from Basarabia (present-day Moldova Republic), collected by G. Bujorean in 1937.

The most recent specimens in the collection date to 2018, exemplified by *Artemisia austriaca* collected by Paulina Anastasiu from Agighiol, Tulcea County. Other recent additions include *Artemisia pontica* collected in 2015 by Monica Badea in Ialomița County and *Artemisia absinthium* from Giurgiu County by Magdalena Andreica. These collections highlight the continuous botanical interest and recent research efforts to document Romania's flora.

The *Artemisia* collection at the BUC herbarium reflects the dedicated work of numerous botanists across different time periods, each contributing valuable specimens from diverse regions. Here is an overview of the key collectors, arranged chronologically:

F.O. Wolf – The oldest specimen in the collection, *Artemisia* × *jaeggiana* F.O. Wolf, was collected by Wolf in Switzerland in 1890, marking the beginning of the herbarium's historical record of the *Artemisia* genus.

P. Enculescu – one of the earliest and most significant Romanian collectors, he collected specimens such as *Artemisia austriaca* in Bucharest in 1903 and *Artemisia scoparia* in Brăila in 1906. His early collections laid a strong foundation for the herbarium, particularly in southern Romania.

Al. Borza – Active from the 1920s to the 1950s, Borza was a highly influential Romanian botanist, responsible for a wide variety of *Artemisia* specimens, including *Artemisia pontica* and *Artemisia santonicum* subsp. *santonicum*. He collected extensively in counties such as Alba, Buzău, and Galați, focusing on both saline and steppe habitats, which are important ecosystems for *Artemisia* species.

I. Morariu – Morariu's collections span from the late 1930s to the mid-1950s, with specimens collected from Bucharest, Țara Bârsei in Brașov, and Cluj. His notable contributions include *Artemisia vulgaris* and *Artemisia scoparia*, reflecting his interest in ruderal and cultivated areas across central and southern Romania.

Ioan Șerbănescu – One of the most prolific collectors, Șerbănescu contributed extensively from the 1940s through the 1970s. His collections cover a wide range of regions, including Dolj, Galați, Ialomița, and Buzău. He was instrumental in documenting *Artemisia* species such as *Artemisia austriaca*, *Artemisia santonicum* subsp. *santonicum*, and *Artemisia campestris* from diverse habitats, particularly saline and steppe environments.

I. T. Târnăveanu – collected mainly during the 1960s and 1970s, focusing on northern Romania, particularly Satu Mare and Cluj County. His specimens include *Artemisia absinthium* and *Artemisia vulgaris* from bushy and ruderal habitats, adding valuable geographical diversity to the collection.

G. Bujoreanu – collected *Artemisia absinthium* from Basarabia (now part of Moldova Republic) in 1937, representing an important addition from outside Romania.

G. Negrean – In recent years, Negrean has been an active collector, adding specimens like *Artemisia pontica* from Satu Mare and Tulcea in 2012 and 2013, respectively. His work continues to expand the herbarium's geographic and ecological scope.

Monica Badea – One of the most active contemporary collectors, Badea has added numerous specimens, including *Artemisia abrotanum*, *Artemisia absinthium*, and *Artemisia pontica*. Her primary areas of collection include Bucharest, Ilfov, Giurgiu, and Ialomița.

Magdalena Andreica – Andreica's collections focus on southern Romania, particularly Giurgiu and Ialomița counties, with specimens of *Artemisia absinthium* and *Artemisia pontica* collected in recent years.

Paulina Anastasiu – The most recent collector in the herbarium, Anastasiu collected *Artemisia austriaca* from Agighiol, Tulcea County, in 2018, demonstrating ongoing research in Romania's eastern regions.

The three most prolific collectors in the BUC herbarium's *Artemisia* collection are Ioan Șerbănescu, Al. Borza, and Monica Badea. Șerbănescu contributed around 80

specimens, focusing on saline and steppe habitats in Dolj, Galați, and Ialomița. Borza added approximately 60 specimens, primarily from Alba, Buzău, and Galați, with an emphasis on steppe ecosystems. Badea provided around 50 specimens from Bucharest, Ilfov, and Giurgiu, documenting *Artemisia* in urban and peri-urban landscapes.

Conclusions

The *Artemisia* collection at the BUC Herbarium, spanning specimens collected as early as 1890, serves as a valuable historical archive of Romania's botanical diversity. Through this work, we systematically assessed, digitized, and organized 324 specimens, covering 19 taxa with broad geographic and ecological representations. Notably, taxa such as *Artemisia austriaca* and *Artemisia pontica* are well represented, reflecting their adaptability and regional prevalence.

Although no taxa from this collection are listed on Romania's national Red List, eight are recognized within the IUCN Global Red List, indicating varying conservation needs globally. This work also rectified taxonomic inconsistencies, aligning specimen identifications with current nomenclatural standards from POWO and regional flora references.

The contributions of numerous collectors, including foundational figures in Romanian botany, add rich historical context to the collection. This effort not only enhances the accessibility and relevance of these specimens but also highlights the BUC Herbarium's role in preserving and making available data crucial for conservation, taxonomy, and ecological studies. Continued curation and digitization efforts will ensure the collection remains a dynamic resource for future research and biodiversity conservation initiatives.

References

- Anastasiu, P. (Coord.), Sîrbu, C., Urziceanu, M., Camen-Comănescu, P., Oprea, A., Nagodă, E., Gavrilidis, A.-A., Miu, I., Memedemin, D., Sîrbu, I. & Manta, N. (2019). *Ghid de inventariere și cartare a distribuției speciilor de plante alogene invazive și potențial invazive din România*. București: Ministerul Mediului, Apelor și Pădurilor & Universitatea din București.
- Besnard, G., Gaudeul, M., Lavergne, S., Muller, S., Rouhan, G., Sukhorukov, A. P., Vanderpoorten, A., Jabbour, F. (2018). Herbarium-based science in the twenty-first century. *Botany Letters*, 165(3–4), 323–327.
- Christenhusz, M.J.M., Fay, M.F., Chase, M.W. (2017). *Plants of the World. An illustrated encyclopaedia of vascular plants*. Royal Botanic Gardens, Kew: Kew Publishing.
- Ciocârlan, V. (2009). *Flora Ilustrată a României. Pteridophyta et Spermatophyta*. București: Edit. Ceres.
- Council Directive 92/43/EEC. (1992). Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. *Official Journal L*, 206, 7-50.
- Dihoru, G. & Negrean, G. (2009). *Cartea Roșie a plantelor vasculare din România*. București: Edit. Academiei Române.
- IUCN (2024). *The IUCN Red List of Threatened Species*. Version 2024-1. <https://www.iucnredlist.org>. Accessed on 26 October 2024.
- Khela, S. 2012. *Artemisia absinthium (Europe assessment)*. *The IUCN Red List of Threatened Species 2012*: e.T202932A2758093. Accessed on 02 November 2024.

- Khela, S. 2012. *Artemisia vulgaris* (Europe assessment). *The IUCN Red List of Threatened Species* 2012: e.T202936A2758117. Accessed on 02 November 2024.
- Khela, S. 2013. *Artemisia santonicum* (Europe assessment). *The IUCN Red List of Threatened Species* 2013: e.T202934A2758105. Accessed on 02 November 2024.
- Lončarević N., Liu U., Stefanaki A., Carapeto A., Ensslin A., Meade C, Metzling D, Peci D, Fantinato E, Colling G, Pankova H, Akmane I, Tsvetkov I.N., Sibik J, Szitár K., Van Meerbeek K., Daco L, Boudagher M., Klisz M., Walczak M., Evju M., Lužnik M., Kiehn M., Sarginci M., Aksoy N., Koçer N., Barazani O., Anastasiu P., Stroh P., Vit P., Vergeer P., Puchałka R., Kahale R., Godefroid S., Lanfranco S., Parpan T., Kull T., Rašomavičius V., Fišer Ž. & Glasnović P., 2024. Database of European vascular plants red lists as a contribution to more coherent plant conservation. *Scientific Data*. 11: 1138, <https://doi.org/10.1038/s41597-024-03963-0>
- Mabberley, D.J. 2008. *Mabberley's Plant-book: a portable dictionary of plants, their classification and uses*. Cambridge: Cambridge University Press.
- Mátis, A., Malkócs, T., Kuhn, T., Laczkó, L., Moysiyanenko, I., Szabó, A., Bădărău, A.S. & Sramkó, G. (2023). Hiding in plain sight: Integrative analyses uncover a cryptic *Salvia* species in Europe. *Taxon*, 72(1), 78-97.
- Oltean, M., Negrean, G., Popescu, A., Roman, N., Dihoru, G., Sanda, V. & Mihăilescu, S. 1994. Lista roșie a plantelor superioare din România. In: M. Oltean (coord.), *Studii, sinteze, documentații de ecologie, Acad. Română, Institutul de Biologie*, 1, 1–52.
- OGU (2007). Emergency Ordinance no. 57 of June 20, 2007 on the regime of protected natural areas, conservation of natural habitats, wild flora and fauna. Romanian Government.
- POWO (2024). Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Published on the Internet; <http://www.plantsoftheworldonline.org/> Retrieved 26 October 2024.
- Sârbu, I, Ștefan, N., Oprea, A. (2013). *Plante vasculare din România. Determinator ilustrat de teren*. Ed. Victor B. Victor, București.
- Sîrbu, C. & Oprea, A. (2017). Notes on the genus *Oenothera*, section *Oenothera*, subsection *Oenothera* in Romania. *Acta Horti Botanici Bucurestiensis*, 44, 33-56.
- Sîrbu, C. & Oprea, A. (2011). *Flora adventivă din România*. Iași: Edit. Universității “Alexandru Ioan Cuza”.
- Soni, R., Shankar, G., Mukhopadhyay, P., & Gupta, V. (2022). A concise review on *Artemisia annua* L.: A major source of diverse medicinal compounds. *Industrial Crops and Products*, 184, 115072.
- Thiers, B.M. (2023). *The World's Herbaria 2022: A Summary Report Based on Data from Index Herbariorum*. *Index Herbariorum*. New York Botanical Garden's Virtual Herbarium. <http://sweetgum.nybg.org/science/ih/>
- Urziceanu, M., Anastasiu, P. & Crăciun, I. (2017). Brown Algae Collection of the Herbarium of the Botanic Garden “D. Brandza”, University of Bucharest. *Acta Horti Bot. Bucurest.*, 44, 111–146.
- Urziceanu, M., Nagodă, E., Iordache, C., Crăciun, I. & Anastasiu, P. (2018). The Red Algae Collection of the Botanic Garden “D. Brandza” Herbarium, University of Bucharest. *Acta Horti Bot. Bucurest.*, 45, 65–195.

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2. Borza, A. (1966). Cercetări asupra florei și vegetației din Câmpia Română (i). *Contrib. Bot. Cluj*, /1966/(2), 141-162.
3. Buttler, K.P. (1969). Chromosomanzahlen und Taxonomische bemerkungen zu einigen Rumanischen Angiospermen. *Rev. Roumaine Biol., Bot.*, 14(5), 275-282.

- **For books**

1. Brandza, D. (1879 – 1883). *Prodromul Florei Române sau enumerațiunea plantelor până astă-di cunoscute în Moldova și Valachia*. București: Tipogr. Academiei Române.
2. Beldie, A. (1967). *Flora și vegetația munților Bucegi*. București: Edit. Acad. Române.

- **For serials**

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- **For chapter in serials**

1. Beldie, A. (1955). *Leontice*. In T. Săvulescu (Ed.). *Flora României*. Vol. 3. (p. 33). București: Edit. Academiei Române.

2. Borza, A. (1931). Die Vegetation und Flora Rumänien. In A. Borza (Ed.). *Guide de la Sixième Excursion Phytogéographique Internationale Roumanie* (pp. 1-55). Cluj: Institutul de literatură și Tipografie Minerva S.A.

- **For chapter in occasional volumes**

1. Boșcaiu, N. (1976). Semnificația documentară a florei dobrogene și necesitatea conservării sale. In Anonymous, *Ocrotirea Naturii Dobrogene* (pp. 121-132). Cluj-Napoca.

- **For proceedings from a conference**

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- **For a thesis**

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- **For a web page**

The Plant List 2010. *Version 1*. Retrieved October 25, 2012, from: <http://www.theplantlist.org/>

Kuo, M. (May 2007). *MushroomExpert.Com*. Retrieved 15 May, 2013, from http://www.mushroomexpert.com/peziza_badioconfusa.html

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