

**THE CHOROLOGY OF *ARTEMISIA ALBA TURRA,*  
*A. LERCHIANA WEBER AND A. TSCHERNIEVIANA BESSER*  
(ASTERACEAE) IN ROMANIA**

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**Abstract**

The paper presents chorological data concerning *Artemisia alba Turra*, *Artemisia lerchiana Weber*, and *Artemisia tschernieviana Besser* (Asteraceae) in Romania. These species of *Artemisia* are considered rare in Romania. Chorological data regarding *Artemisia alba*, *A. lerchiana* and *A. tschernieviana* distributions are presented using bibliographical information, data from different Herbaria of Romania and original data collected from fieldwork. An original chorological map using GEOCOD coordinates is presented for the first time.

**Key words:** Asteraceae, *Artemisia* species, chorology, distribution map, GEOCOD coordinates, Romania.

**INTRODUCTION**

Genus *Artemisia* L. is one of the largest and most widespread types of the nearly 100 genera that make up the family Asteraceae. It is considered that the genus includes about 500 species worldwide, of which 15 species are annual or biennial. Several members of the genus can be found as endemic species, introduced by man or, as is the case in South America and South Africa, appear as invasive species. *Artemisia* species are perennial, rarely annual or biennial (Bremer, 1994; Vallès and McArthur, 2001).

In 'Flora Europaea' *Artemisia* genus contains 57 species, and the Illustrated Flora of Romania it is mentioned the presence of 16 species (Ciocârlan, 2009), five of which are considered rare. In Romania there are few studies on rare species of the genus *Artemisia* (Badea, 2011). Holobiuc and Blidu (2007) and Dihoru and Negrean (2003) realised a distribution maps of some rare species using Universal Transverse Mercator (UTM) system.

*Artemisia lerchiana* species was cited by Borza (1947) as being present in Dobrogea and Moldova. Concerning *A. tschernieviana* species (syn. *A. arenaria*) Borza (1947) cites the presence in Moldova and Dobrogea (FRE 2294) also mentioned that the dunes rare

marine species from the Black Sea, Constanta to Mamaia from Tannery (Prodan, 1925).

The main objective of the present study is to add new and original chorological points and to document the geographic distribution of the *A. alba*, *A. lerchiana*, *A. tschernieviana* species in Romania using GEOCOD system.

**MATERIALS AND METHODS**

The chorological distribution of the species using UTM coordinates is expressed in Figures 4, 5 and 6. Descriptions and details of distribution of *Artemisia* are based on collections from Herbaria: BUAG-Herbaria of U.S.A.M.V. Bucharest, BUC-Herbaria of University of Bucharest, BUCA-Herbaria of Institute of Biology Bucharest, CL-Herbaria of University "Babes-Bolyai", Cluj-Napoca, CRA-Herbaria of University of Craiova, I-Herbaria of University "Al. I. Cuza" Iasi (according codes with Index Herbariorum, N. H. Holmgren). The chorological map of *Artemisia alba*, *A. lerchiana*, *A. tschernieviana* is based on the cited sources above and new personal records obtained during research, or different databases / scientific publications where this species was referred. The chorological maps of *Artemisia alba*, *A. lerchiana* and *A. tschernieviana* included in this work were made by taking in account the

principles of the GEOCOD System (Oltean and Stefanut 2002), which ensures an exact localization of villages, communes and towns where this species was found.

## RESULTS AND DISCUSSIONS

*Artemisia alba* Turr [syn. *A. saxatilis* Waldst. & Kit., *A. biasolettiana* Vis., *A. lobelii* All., *A. incanescens* Jord., *A. camphorata* Vill., *A. suavis* Jord.]

It is a rare, submediterranean calcicole species (Figure 1).

**County ALBA:** FS 94 Coltesti, leg. Csuros et Pàll, det. Gergely, 19.10.1957 (CL 659804); FS 94 Coltesti, 'Piatra Cetatii', leg. et det. I. Gergely, 22.09.1961 (I 89274, 45278, 33162); Mountains Hasmas: Mt. Hasmasul Mic, Trascaului pe "Piatra Cetatii", "Piatra Urdasului", "Piatra Podmon", Mt. Bedeleu, "Piatra lui Paul cel Mare" (Oprea, 2005);

**County CARAS-SEVERIN:** EQ 58 Ciclova (Oprea 2005, Savulescu et all., 1964);

**County CONSTANTA:** PJ 05 Cotul Vaii, leg. et det. Gavril Negrean, 21.08.2002 (CL 656524);

**County CLUJ:** Rimetea, (Savulescu et all., 1964); FS 95 Buru, leg. Badea Monica, det. V. Ciocârlan, 11.10.2010 (BUAG 23955);

**County HARGHITA:** Mt. Haghimasu Mic (Savulescu et all., 1964);

**County SIBIU:** KL 68/78 Ocna Sibiului, (FS, Savulescu et all., 1964);

**County TULCEA:** 6 Martie, leg. et det. G.Negrean, 1.06.1984 (BUCA 549790);

**Artemisia lerchiana** Weber [syn. *A. incana* B. Keller, non Druce; *A. taurica* auct. roman., non Willd.]

It is a Xerophile, heliophile and calcicole plant widely spread in the Pontic-Aralo-Caspian area. The species can be found in Dobrogea ("Capul Dolosman-Jurilovca"). It has a preference for dry, rocky terrain with a gentle to medium slope and chernozem or kastanozem (Figure 2).

**County IASI:** NN 34 Tiganasi (Chifu et all., 1987);

**County TULCEA:** PK 35 Baia, 3.07.1978, G. Negrean (BUCA); PK 46 Jurilovca (Capul Dolosman), 31.10.1999, leg. et det. V. Ciocârlan (BUAG 23191); leg. Badea Monica, det. Vasile Ciocârlan, 4.10.2009 (BUAG

23959); G. Negrean, 2.07.1978 (HGN); Jurilovca, 27.06. 1983, G. Negrean (BUCM 77235);

**Artemisia tschernieviana** Besser [syn. *A. arenaria* DC.; *A. campestris* subsp. *inodora* Nyman.]

It is a rare, continental, heliophile, psamophylous plant. The western limit for her growth area is Romanian part of Dobrogea (Figure 3).

**County CONSTANTA:** PJ 28 Agigea, leg. C. Burduja et det. I. Sârbu, 5.08.1967, (I 43001, 43002); Capul Midia, leg. Badea Monica, det. Vasile Ciocârlan, 6.07.2011 (BUC 157623; I 137117); PJ 28/29 Constanta, leg. C. Petrescu et det. C. Dobrescu, 31.07.1915 (I. 24249, 1467); PJ 37/38 Eforie, leg. et det. C. Burduja, 27.07.1948 (I. 61355; 61356); PJ 37/38 Eforie, leg. et det. I. Sârbu, 19.10.1971 (I. 36912; 36193; 38340); PJ 37/38 Eforie, leg. C. Zahariadi, det. A. Popescu, 30.08.1960, (BUCA 129286); PJ 39 Mamaia, leg. et det. C. Burduja, (I 61357, 61358, 1467); PJ 39 Mamaia, leg. Grintescu, 11.08.1910, det. Beldie Alex., 1964, (BUCA 88643); PJ 39 Mamaia, leg. M.Tiesen, 11.08.1926 (CL 429167); PJ 39 Mamaia, leg. Al. Borza, 5.08.1923 (CL 501119, 501146); PK 20 Navodari, leg. Popescu, 18.05.1972 (BUCA 129079); PJ 27 Techirghiol, leg. et det. G. P. Grintescu, 17.09.1925 (I 45271, 33158, BUCA 18848, 30326, 41826, 30380, 30379, 30378, 11278; CL 618230; CRA, 1467); Corbu, (Fagaras, 2008);

**County SUCEAVA:** MN 37 Moara Carp, reserve Frumoasa, leg. M. Paun, M. Olaru, Gh. Popescu, (CRA);

**County TULCEA:** NL 92 Grindul, leg. Popescu, 24.07.1968 (BUCA 133359; BUCA 133539), PL91 Letea (Buia, 1963), QL 00/10 Sulina (Buia, 1963) Sf. Gheorghe, Ciocârlan, 1994;

## CONCLUSIONS

This study contains data from different Herbaria from Romania (BUC, BUCA, BUAG, CL, CRA, I) in which we made the revision of *Artemisia* L. (Asteraceae) genus and made photos of the herbaria sheets with *Artemisia alba*, *A. lerchiana*, *A. tscherneviana*.

The chorology maps of *Artemisia alba*, *A. lerchiana*, and *A. tschernieviana* species were developed for the first time using GEOCOD coordinates. New and original localities were added compared with bibliographical references or data sheets specimens from Herbaria.

Were placed in Herbaria specimens of rare *Artemisia* species (*Artemisia alba* and *A.*

*lerchiana* in BUAG-Herbaria of USAMV Bucharest, *Artemisia tschernieviana* in BUC-Herbaria of University of Bucharest, I-Herbaria of University "Al.I.Cuza" Iasi).

These chorological maps add new data in our monographic study of *Artemisia* L. (Asteraceae) genus in Romania.



Figure 1. Morphological aspect of *Artemisia alba* Turra (orig. 1a)



Figure 2. Morphological aspect of *Artemisia lerchiana* Weber (orig.)



Figure 3. Morphological aspect of *Artemisia tschernieviana* Besser (orig.)

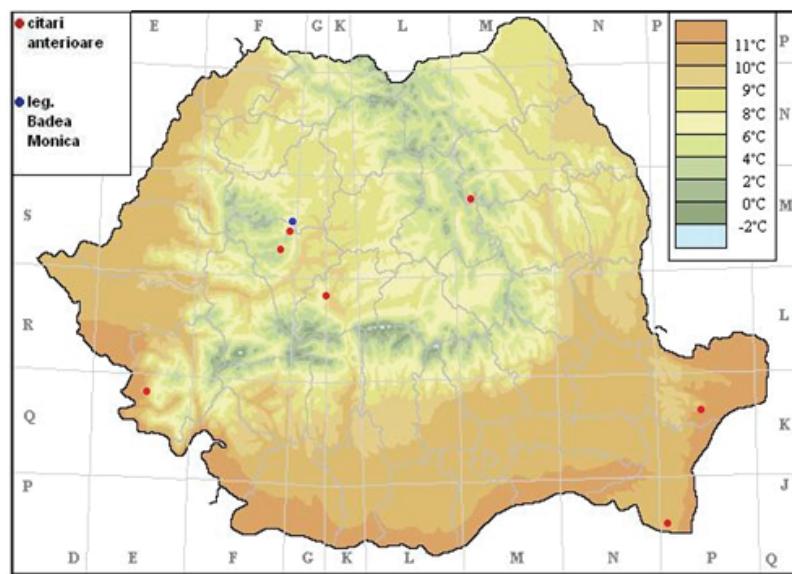


Figure 4. Chorology of *Artemisia alba* Turra in Romania (orig.)

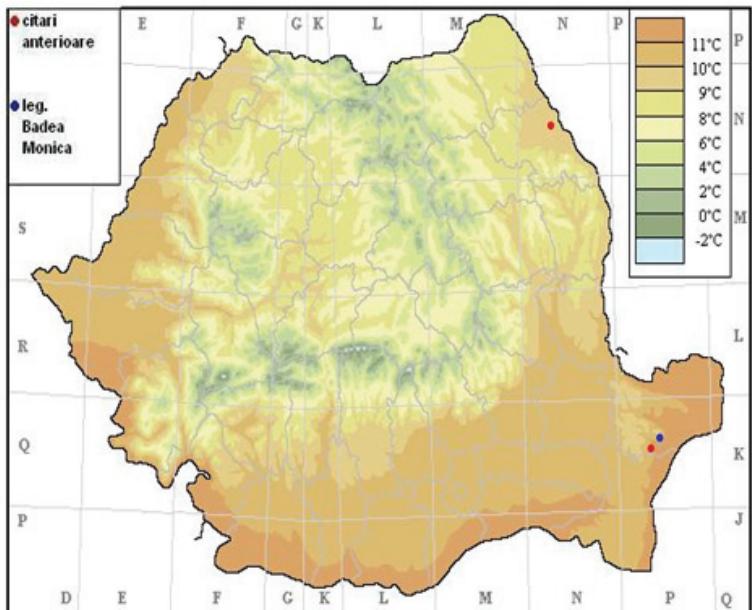


Figure 5. Chorology of *Artemisia lerchiana* Weber in Romania (orig.)

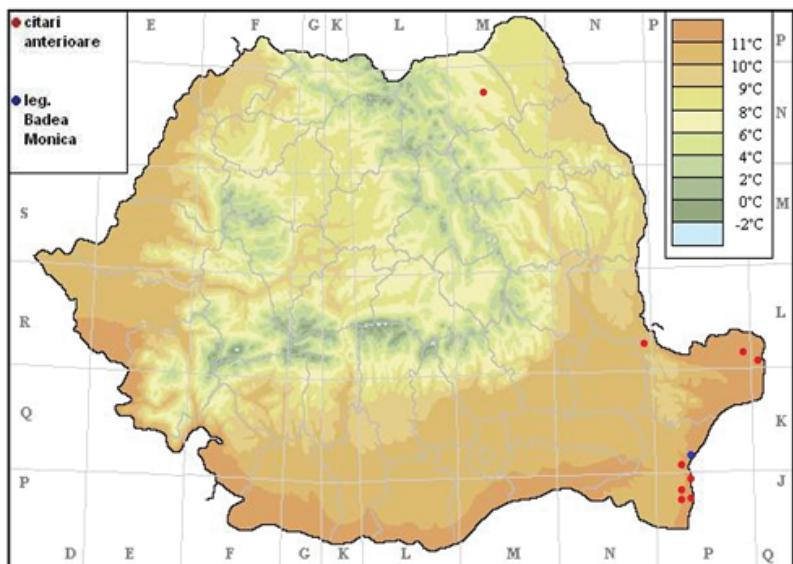


Figure 6. Chorology of *Artemisia tshernieviana* Besser in Romania (orig.)

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