INDICES OF THE VEGETABLE CARPET FROM THE SITE OF COMMUNITY IMPORTANCE VALEA DIN SÂNANDREI (ROSCI0402)

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Abstract: *The establishment of sites of community importance and special areas of protection has been added to the previous system of natural and national parks, reservations of various categories, monuments of nature; In most cases, the limits of Natura 2000 sites encompass the objectives already protected before 2007, the area entered under the jurisdiction of Natura 2000 being noticeably higher. This vast network is also made up of areas that have not entered under any protection regime before 2007 and is being expanded. Among these new sites is the site of community importance Valea din Sânandrei (ROSCI0402), located in the high plain area of Banat, in the north the city of Timisoara, in the form of the river Surduc Valley and two tributary streams valleys. The method of study of the flora of cormophyite and the method of study of vegetation are the methods used to identify the flora and the vegetable mat present in the site. The Flora of the site was studied by completing it in several periods during 2017 (starting March 27th) and 2018. Thus, we have made direct observations and determinations on the ground. I also made photographs as auxiliary for the activity of determination. I used the current determinators (Ciocârlan, 2009 and Sârbu et al., 2013). The periods during which phytosociological relevance were carried out were in April-May, until July-August, 2017 and 2018. Graphical analysis indicators of flora in terms of the structure of cormoflora on botanical families and life span, analysis of the spectrum of life forms and floristic elements, ecological spectrum on humidity, temperature and soil reaction. To date, the site falls into the category of those who do not have their own management plan. By this paper, we are trying to make a contribution to the knowledge of the cormophyite flora and the habitats of the site, which are not systematically investigated until that time. In the paper we also included the impacts observed, which can be a starting point in determining the management measures of this site.*

Key words: *flora, habitats, Valea din Sânandrei, ROSCI0402, conservation, Natura 2000*

INTRODUCTION

The site of community importance Valea din Sânandrei (ROSCI0402) is located in the high plain area of Banat, north of the city of Timisoara, in the form of the Surduc River Valley and it's two tributed valleys. With the coordinates of the central point 45.881855 N and 21.166158 E and an area of 47.80 ha (according to the standard form of the site), the site falls into the category of those who do not yet have their own management plan. In addition to the general characters, the site also presents other features such as areas with loess meadows, favourable for species characteristic of panonic steppe grassland habitats (http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ROSCI0402).

By this paper, based on field research undertaken from March 2017 to May 2018, we are contributing to the knowledge of the flora of cormophite and the habitats of the site, which are systematically unpaved to date. Previously, species of high sozologic importance were not reported in the site (only *Sonchus palustris*, which would provide the uniqueness of the site: the only important site in the Pannonian Bioregion in Romania that shelters this species (http://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=ROSCI0402)). In the paper we also included the impacts observed, which can be a starting point in determining the management measures of this site.

Fig.1. Laying down the site of community importance Valea din Sânandrei

MATERIAL AND METHOD

The Flora of the site was studied by completing it in several periods during 2017 (starting March 27th) and 2018. Thus, we have made direct observations and determinations on the ground. I also made photographs as auxiliary for the activity of determination. We used the current determinators [3] and [9]. The nomenclature considered in the work complies with *The Euro Med system.Plant_Base*.

The floristic conspect is alphabetically ordered, each species being presented with the following information: family, life form, floristic elements, values of U indices (resort humidity), T (average annual temperature of the resort) and R (soil reaction) and the importance of sozologic (conservative status according to the Red List of vascular plants in Europe: [1]). UTR values and other information are in accordance with [9].

The basis for habitat determination were the main tools used in our country: The European Interpretation Handbook (*EUR28*), the *romanian interpretation handbook* [8] and the *romanian habitat classification system* [6] and [7].

The interpretation of the habitats was based on the correspondence between the plant associations and the habitat types in the abovementioned works, but also taking into account the floristic observations and the resort. The map delimitation of habitats was made on satellite imagery (Google Earth) based on coordinates and observations taken in the field. Negative anthropogenic impacts were established by observations on the ground and coded according to the Natura 2000 system presented in Romania in the synchronous project. The Habitats conservation recommendations were formulated following the study of the various bibliographical sources, mainly those on the Natura 2000 portal (http://cdr.eionet.europa.eu/help/natura2000).

RESULTS AND DISCUSSIONS

In the study area we identified a total of 136 species. Most belong to the *Compositae* family (25 species), followed by the family *Poaceae* (17 species). There are 40 families in total and 17 families with one species are represented.

In the study area we identified a total of 136 species. Most belong to the *Compositae* family (25 species), followed by the family *Poaceae* (17 species). There are 40 families in total and 17 families with one species are represented.

The conspect of flora is and contains the following: 1. *Achillea pannonica* (*Compositae*), H., Pont-pan-balc., $U_4T_6R_7$; 2. *Agrimonia eupatoria* (*Rosaceae*), H., Euras., $U_4T_xR_x$; 3. *Agrostis stolonifera* (*Poaceae*), H., Circ., $U_6T_xR_x$, LC; 4. *Alisma plantago-aquatica* (*Alismataceae*), Hd., Cric., $U_{10}T_6R_x$, LC; 5. *Alopecurus pratensis* (*Poaceae*), H., Euras., $U_6T_xR_7$, LC; 6. *Althaea officinalis* (*Malvaceae*) H., Euras. Cont., $U_7T_6R_7$; 7. *Ambrosia artemisiifolia* (*Compositae*), T., Buriana de carantina, $U_4T_6R_7$; 8. *Anthriscus cerefolium* (*Apiaceae*), T., Euras., $U_3T_7R_x$; 9. *Arctium lappa* (*Compositae*), Ht., Euras., $U_5T_xR_7$; 10. *Aristolochia clematitis* (*Aristolochiaceae*), H., Euras., $U_6T_6R_6$; 11. *Artemisia annua* (*Compositae*), T., Euras. Cont., $U_4T_6R_7$; 12. *Artemisia vulgaris* (*Compositae*), H., Circ., $U_6T_xR_x$; 13. *Asclepia syriaca* (*Aslepiadaceae*), T., Adv., (Am. De N), $U_xT_xR_x$; 14. *Astragalus glycyphillos* (*Fabaceae*), H., Euras.-submed., $U_4T_6R_7$; 15. *Bidens tripartitus* (*Compositae*), T., Euras., $U_{10}T_xR_x$; 16. *Bromus arvensis* (*Poaceae*), T-Ht., Euras., $U_6T_xR_x$; 17. *Bromus inermis* (Poacea*e*), H., Cont. euras., $U_4T_xR_7$; 18. *Calamagrostis epigejos* (*Poaceae*), G., Euras., $U_xT_xR_x$; 19. *Calystegia sepium* (*Convolvulaceae*), G(H)., Euras., $U_6T_6R_7$; 20. *Capsella bursa pastoris* (*Cruciferae*),T-Ht., Eutr.-mezotr., $U_xT_xR_x$; 21. *Carduus acanthoides* (*Compositae*), Ht., Eur., $U_3T_xR_x$; 22. *Carex riparia* (*Cyperaceae*), G(HH)., Euras., $U_9T_6R_7$, LC; 23. *Carex vulpina* (*Cyperaceae*), H., Euras., $U_9T_xR_x$; 24. *Centaurea spinulosa* (*Compositae*), H., Centr. și Sud-Est Eur., $U_3T_6R_7$; 25. *Chenopodium album* (*Chenopodiaceae*), T., Cosm., $U_4T_xR_x$; 26. *Cichorium intybus* (*Compositae*), H., Euras., $U_4T_xR_x$, LC; 27. *Cirsium arvense* (*Compositae*), Ht., Euras., $U_8T_5R_5$; 28. *Cirsium canum* (*Compositae*), G., Euras. Cont., $U_8T_6R_7$; 29. *Cirsium palustre* (*Compositae*), Ht., Euras., $U_8T_5R_5$; 30. *Cirsium vulgare* (*Compositae*), Ht., Euras., $U_5T_xR_x$; 31. *Colchicum autumnale* (*Colchicaceae*), G., Centr. Eur., $U_6T_5R_5$; 32. *Conium maculatum* (*Apiaceae*), T-Ht., Euras., $U_6T_6R_x$; 33. *Convolvulus arvensis* (*Convolvulaceae*), G(H)., Cosm., $U_4T_xR_x$; 34. *Conyza canadensis* (*Compositae*), T., Adv. (Am. De N), $U_3T_xR_x$; 35. *Cruciata laevipes* (*Rubiaceae*), H., Euras., $U_6T_5R_7$; 36. *Cucubalus baccifer* (*Caryophyllaceae*), H., Euras., $U_8T_6R_7$; 37. *Dactylis glomerata* (*Poaceae*), H., Euras., $U_4T_xR_x$; 38. *Daucus carota* (*Apiaceae*), Ht., Euras., $U_4T_xR_x$, LC; 39. *Dipsacus laciniatus* (*Dipsacaceae*), Ht., Euras. Cont., $U_6T_7R_7$; 40. *Echinochloa crus-galli* (*Poaceae*), T, Cosm., $U_5T_xR_x$; 41. *Eleocharis palustris* (*Cyperaceae*), G(HH)., Cosm., $U_{10}T_xR_x$, LC; 42. *Elymus repens* (*Poaceae*), G., Circ. Comuna, $U_5T_xR_x$; 43. *Epilobium hirsutum* (*Onagraceae*), H., Euras., $U_8T_5R_x$; 44. *Equisetum arvense* (*Equisetaceae*), G., Cosm., $U_6T_6R_x$, LC; 45. *Erigeron annuus* (*Compositae*), T., Adv., $U_3T_xR_x$; 46. *Eupatorium cannabinum* (*Compositae*), H., Euras., $U_6T_xR_x$; 47. *Euphorbia amygdaloides* (*Euphorbiaceae*), Ch., Centr.-Eur./subalt.-submedit., $U_5T_5R_x$; 48. *Euphoribia cyparissias* (*Euphorbiaceae*,) H., Euras., $U_3T_xR_x$; 49. *Falcaria sioides* (*Apiaceae*), T., Euras., $U_3T_xR_x$; 50. *Festuca arundinacea* (*Poaceae*), H., Eur. Centr., $U_7T_xR_7$; 51. *Festuca gigantea* (*Poaceae*), H., Euras., $U_7T_5R_6$; 52. *Festuca pratensis* (*Poaceae*), H., Euras., $U_6T_xR_x$; 53. *Fragaria vesca* (*Rosaceae*), H., Euras., $U_5T_xR_x$, LC; 54. *Galinsoga parviflora* (*Compositae*), T., Adv. (Am. De S), $U_5T_xR_x$; 55. *Galium aparine* (*Rubiaceae*), T., Circ., $U_6T_xR_x$; 56. *Galium mollugo* (*Rubiaceae*), H., Euras., $U_5T_xR_x$; 57. *Galium palustre* (*Rubiaceae*), H., Circ., $U_9T_xR_x$; 58. *Galium verum* (*Rubiaceae*), H., Euras., $U_4T_5R_7$; 59. *Glechoma hederacea* (*Lamiaceae*), H., Euras., $U_6T_6R_x$; 60. *Glyceria maxima* (*Poaceae*), H., Circ., $U_{10}T_6R_7$, LC; 61. *Hypericum perforatum* (*Clusiaceae*), H., Euras., $U_4T_xR_x$; 62. *Inula helenium* (*Compositae*), H., Eur. De Sud-Est/Asia Centr.-Vest, $U_5T_6R_7$; 63. *Inula salicina* (*Compositae*), H., Euras., $U_xT_6R_7$; 64. *Iris pseudacorus* (*Iridaceae*), G., Eur., $U_{10}T_xR_x$, LC; 65. *Juncus effusus* (*Juncaceae*), H., Cosm., $U_7T_xR_x$, LC; 66. *Juncus inflexus*, (*Juncaceae*) H., Euras., $U_7T_xR_x$; 67. *Lactuca serriola* (*Compositae*), T-Ht., Euras., $U_4T_6R_x$, LC; 68. *Lamium purpureum* (*Lamiaceae*), T., Eur., $U_5T_6R_x$; 69. *Lathyrus tuberosus* (*Fabaceae*), H., Euras., $U_4T_6R_7$, LC; 70. *Lemna minor* (*Lemnaceae*), Hd., Cosm., $U_{11}T_xR_x$, LC; 71. *Linaria vulgaris* (*Plantaginaceae*), H., Euras., $U_3T_xR_x$; 72. *Lotus corniculatus* (*Fabaceae*), H., Euras., $U_4T_xR_x$,

LC; 73. *Lycopus europaeus* (*Lamiaceae*), H., Euras., $U_9T_6R_x$, LC; 74. *Lycopus exaltatus* (*Lamiaceae*), H., Euras. Cont., $U_9T_6R_7$, LC; 75. *Lysimachia nummularia* (*Primulaceae*), Ch., Euras. Am. De N., $U_6T_6R_x$, LC; 76. *Lysimachia vulgaris* (*Primulaceae*), H., Euras., $U_8T_xR_x$, LC; 77. *Lythrum salicaria* (*Lythraceae*), H., Circ., $U_8T_xR_x$, LC; 78. *Medicago sativa* (*Fabaceae*), H., Eur. De Est, Asia Centr., $U_4T_6R_7$, LC; 79. *Melilotus officinalis* (*Fabaceae*), Ht., Euras., $U_7T_6R_7$, LC; 80. *Mentha aquatica* (*Lamiaceae*), H., Eur., $U_9T_6R_7$, LC; 81. *Mentha arvensis* (*Lamiaceae*), H(G)., Circ., $U_8T_xR_x$; 82. *Mentha longifolia* (*Lamiaceae*), H., Euras., $U_8T_xR_x$; 83. *Morus alba* (*Moraceae*), Ph., China, $U_xT_xR_x$; 84. *Myosotis scorpioides* (*Boraginaceae*), H., Euras., $U_8T_xR_x$, LC; 85. *Oenanthe banatica* (*Apiaceae*), H., Pont.-pan.-balc., $U_9T_6R_7$; 86. *Pastinaca sativa* (*Apiaceae*), Ht., Eutr., $U_4T_6R_7$; 87. *Phragmites australis* (*Poaceae*), G(HH)., Cosm., $U_{10}T_xR_7$, LC; 88. *Plantago major* (*Plantaginaceae*), H., Euras., $U_5T_xR_x$; 89. *Poa trivialis* (*Poaceae*), H., Euras., $U_7T_xR_x$; 90. *Polygonum aviculare* (*Polygonaceae*), T., Cosm., $U_xT_xR_x$; 91. *Polygonum hydropiper* (*Polygonaceae*), T., Circ., $U_8T_6R_x$; 92. *Polygonum persicaria* (*Polygonaceae*), T., Cosm., $U_5T_6R_7$; 93. *Prunus cerasifera* (*Rosaceae*), Ph., Pont.-balc., $U_xT_xR_x$, DD; 94. *Prunus cerasifera subsp. Pissardii* (*Rosaceae*), Ph., Pont.-balc., $U_xT_xR_x$; 95. *Prunus spinosa* (*Rosaceae*), Ph., Eur., $U_xT_6R_x$, LC; 96. *Pulicaria vulgaris* (*Compositae*), T., Euras., $U_8T_6R_7$; 97. *Pulmonaria officinalis* (*Boraginaceae*), H., Eur., $U_6T_4R_5$; 98. *Ranunculus ficaria* (*Ranunculeae*), H., Centr. Eur., $U_6T_5R_5$; 99. *Ranunculus repens* (*Ranunculeae*), H., Euras., Afr. (Adv. In Am. De N), $U_7T_xR_x$, LC; 100. *Ranunculus sardous* (*Ranunculeae*), T., Euras.-nord afr., $U_8T_7R_7$; 101. *Ranunculus sceleratus* (*Ranunculeae*), T., Circ., $U_{10}T_xR_7$, LC; 102. *Rorippa amphibia* (*Brassicaceae*), H., Euras., $U_{10}T_6R_7$, LC; 103. *Rorippa austriaca* (*Brassicaceae*), H., Euras., $U_{10}T_6R_7$, LC; 104. *Rosa canina* (*Rosaceae*), Ph., Eur., $U_4T_xR_x$; 105. *Rubus caesius* (*Rosaceae*), Ph., Eur., $U_7T_6R_7$; 106. *Rumex crispus* (*Polygonaceae*), H., Euras., $U_6T_xR_x$; 107. *Salix alba* (*Salicaceae*), Ph., Euras., $U_7T_6R_x$; 108. *Salix caprea* (*Salicaceae*), Ph., Euras., $U_6T_xR_x$; 109. *Salvia nemorosa* (*Lamiaceae*), H., Pont.-medit.-centr.eur., $U_4T_xR_x$; 110. *Sambucus ebulus* (*Viburnaceae*), H., Euras., $U_5T_6R_7$; 111. *Sambucus nigra* (*Viburnaceae*), Ph., Eur., $U_5T_xR_x$; 112. *Setaria pumila* (*Poaceae*), T., Cosm., $U_4T_6R_7$; 113. *Setaria viridis* (*Poaceae*), T., Cosm., $U_4T_6R_7$; 114. *Sinapis arvensis* (*Brassicaceae*), T., Euras., $U_xT_6R_x$, LC; 115. *Solanum dulcamara* (*Solanaceae*), Ch., Euras., $U_9T_xR_x$; 116. *Solanum nigrum* (*Solanaceae*), T., Cosm., $U_5T_6R_7$; 117. *Sonchus palustris* (*Compositae*), G., Eur., $U_9T_7R_7$; 118. *Sorghum halepense* (*Poaceae*), G., Medit., $U_4T_7R_x$; 119. *Stelaria media* (*Caryophyllaceae*), T-Ht., Centr. Eur., $U_6T_5R_5$; 120. *Symphytum officinale* (*Boraginaceae*), H., Euras., $U_8T_xR_x$; 121. *Tanacetum vulgar*e (*Compositae*), H., Euras., $U_4T_xR_x$; 122. *Taraxacum officinale* (*Compositae*), H., Euras., $U_5T_xR_x$; 123. *Trifolium pratense* (*Fabaceae*), H., Euras., $U_xT_xR_x$, LC; 124. *Typha latifolia* (*Typhaceae*), G(HH)., Cosm., $U_{10}T_6R_x$, LC; 125. *Urtica dioica* (*Urticaceae*), H., Cosm., $U_6T_xR_x$, LC; 126. *Verbascum blattaria* (*Scrophulariaceae*), Ht., Euras., $U_3T_6R_7$; 127. *Verbascum nigrum* (*Scrophulariaceae*), H., Euras., $U_5T_xR_x$; 128. *Verbascum phlomoides* (*Scrophulariaceae*), Ht., Eur., Centr. și Sud-Est, $U_4T_6R_7$; 129. *Verbena officinalis* (*Verbenaceae*), H., Cosm., $U_4T_xR_x$; 130. *Veronica anagallis-aquatica* (*Plantaginaceae*), H, Circ., $U_9T_xR_x$, LC; 131. *Veronica hederifolia* (*Plantaginaceae*), T., Euras., $U_5T_6R_7$; 132. *Veronica persica* (*Plantaginaceae*), T., Asia de Sud-Vest, $U_5T_xR_7$; 133. *Vicia tetrasperma* (*Fabaceae*), T., Euras., $U_5T_6R_7$; 134. *Viola odorata* (*Violaceae*), H., Alt.-medit., $U_5T_6R_x$; 135. *Viola tricolor* (*Violaceae*), T-H., Euras., $U_5T_xR_x$; 136. *Xanthium italicum* (*Compositae*), T., Am. De N si S (Adv. In Eur. De Sud), $U_6T_7R_x$;

From the point of view of the life and habitat (Fig.3.), flora is dominated by the perennial herbaceous species (81 species) followed by the annual and biennial ones, together cumulating 33 species. In the site there are 4 species of trees (*Prunus cerasifera*, *Prunus spinosa*, *Salix alba*, *Salix caprea*), and 3 species of shrubs (*Rosa canina*, *Rubus caesius*, *Sambucus nigra*).

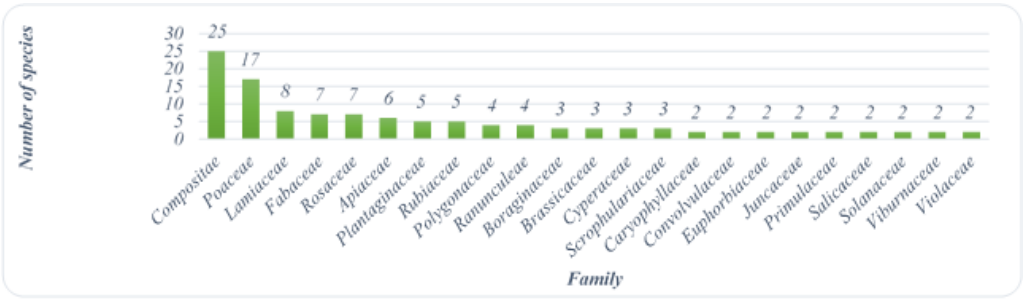

Fig.3. The structure of the cormoflora in the Valea Sânandrei site on botanical families

From the analysis of the spectrum of life forms (Fig.4.) It is found that the highest number of species is owned by hemicriptophytes – 60 species (*Mentha aquatica*, *Lotus corniculatus*, *Carex vulpina*, *Alopecurus pratensis* etc.). This bioform is followed by Terophitis – 26 species (*Lamium purpureum*, *Ranunculus sardous*, *Setaria viridis* etc.), hemiterophits – 11 species (*Cirsium arvense*, *Arctium lappa*, *Pastinaca sativa* etc.), fanerphits – 8 species (*Prunus cerasifera*, *Salix alba*, *Salix caprea* etc.), geophytes – 7 species (*Cirsium canum*, *Colchicum autumnal*, *Sonchus palustris* etc.) and several other life forms represented by a small number of species.

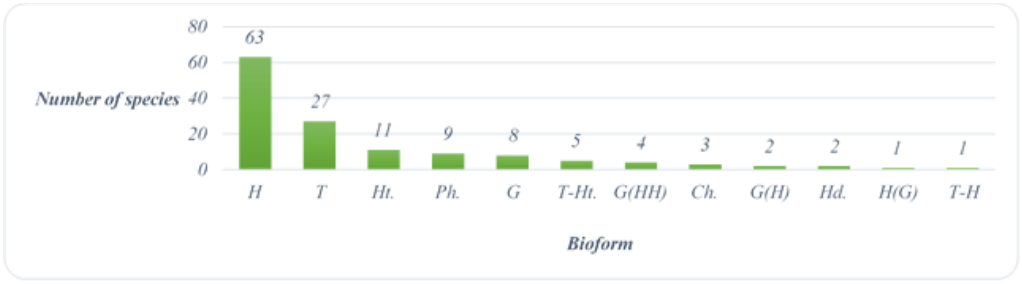

Fig.4. Spectrum of Bioforms prepared for the cormoflora of Valea din Sânandrei

In respect of the structure on floristic elements (Fig.5.), it is found that the most numerous species in the area studied belong to the category of Eurasian species (*Inula salicina*, *Lotus corniculatus*, *Sambucus canarina*, etc.); They are followed numerically by the cosmopolitan species (*Lemna minor*, *Urtica dioica*, *Solanum nigrum* etc.). The other elements are in descending numerical order as follows: Circumpolar, European, Continental Eurasian, Central European, Ponto-Balkan, Adventive.

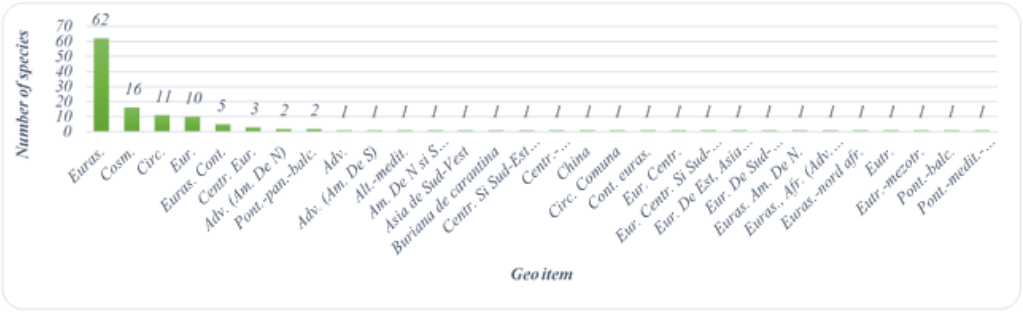

Fig.5. Spectrum of floristic elements of the Cormoflora of Valea din Sânandrei

The sozological importance of flora is apparent in the light of the 37 species listed in the Red List of vascular plants for Europe [1]. Of the species of sozologic importance the vast majority (36 of 37, *Alisma plantago-aquatica*, *Iris pseudodacorus*, *Medicago sativa*, *Trifolium pratense*, *Lathyrus tuberosus* etc.) fall under the category of least targeted (Least Concern).

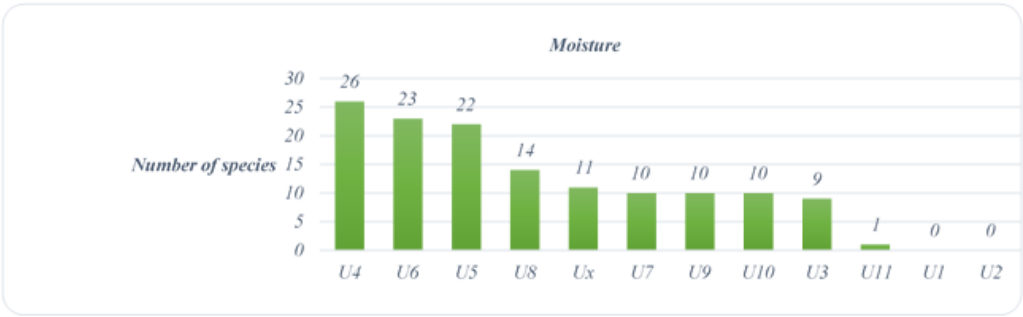

Fig.6. Ecological spectrum for the humidity of the resort prepared for the cormoflora of Valea din Sânandrei

The spectrum for moisture (Fig.6.) reflects the presence of two large categories of species: some mezophilous, cantonated on the slopes of the valley in particular, and one of the hydrophilic species that occupies the microreleful in which water is present at least a large part of the year; Relatively few species (7 species) are eurihidre.

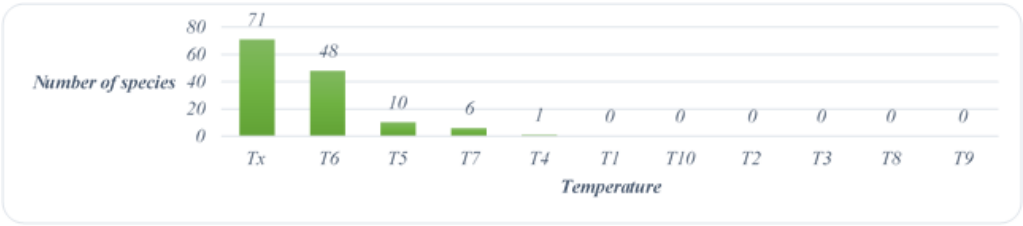

Fig.7. Ecological spectrum for the resort temperature of cormoflora identified in the site of community importance Valea din Sânandrei (Tx values – T10 according to [9])

From the point of view of the indicator value of the species (Fig.7.), the area studied is one with mezoterme species, but slightly more than half of the species are euriterme (65 species).

In the flora of the site we found the predominant presence of eurionic species (83 species) followed by the R7 index (neutrophils 45 species), the other categories being insignificant represented (Fig.8).

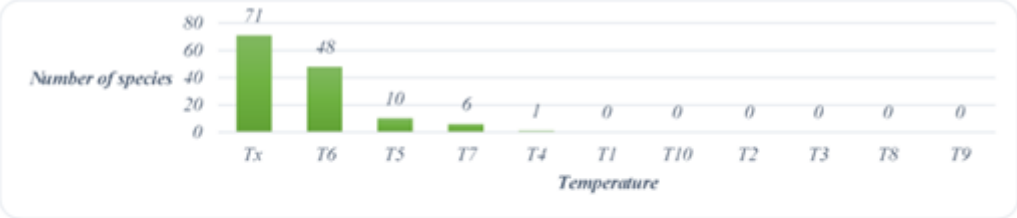

Fig.7. Ecological spectrum for the resort temperature of cormoflora identified in the site of community importance Valea din Sânandrei (Tx values – T10 according to [9])

In the site we have also identified populations of invasive species, most with small actual. The main invasive species are as follows: *Ambrosia artemisiifolia*, *Ambrosia annuua*, *Asclepia syriaca*, *Conyza canadensis*, *Galinsoga parviflora*, *Morus alba*, *Prunus cerasifera*, *Sorghum halepense*, *Veronica persica*.

Sonchus palustris - high-waist plant of 1-3 m or even over, with tuberiform rhizome, thick with a length of up to 5 cm, with numerous bulky roots. Exhibits a stiff, thick, straight, muchied, finely striated stem with large leaves in the side beneath the antels does not exhibit leaves and moderately branted. Stems with a length of approx. 25 cm, deep penated fidate, elongated oval, acute, at a corded hem, on the face of dark green, on the pale yellow. Umbelated antela, often surfaces. Invowork has a length of 15-16 mm, with nested folio, narrow lanceolate. The shade of yellow is present in the flowers that are longer than the invowork. They prefer moist soils to swamps, river banks, trestles, edge of the bushes.

CHARACTERISATION OF THE MAIN HABITATS

R5309 Danubian communities with Phragmites australis and Schoenoplectus lacustris

Habitat type defined in the literature [6] as the correspondent of the *CORINE type: 53.11 Common Reed* (*Phragmites australis*) bed and *PALEARCTIC type HABITATS: 53.113 Giant Phragmites beds*. This type corresponds to the *Scirpo Plant Association W. Koch 1926*. The vegetable carpet has a monotone appearance, the Reed being virtually the only enlightening species; More specimens or reduced populations of *Typha angustifolia*, *T. latifolia*. Other important species: *Phalaris arundinacea*, *Oenanthe aquatica*, *Lemna minor*, *Spirodela polyrhiza*, *Stachys palustris*, *Iris pseudodacorus*, *Ranunculus lingua*, *Eleocharis palustris*, *Carex riparia*.

The preservative value of the habitat is reduced, but the habitat is important for birds, as a place of nesting. In the site, the stuffing stands are encountered along the small portions in the western half, the largest surfaces being in the eastern half. According to our assessment the habitat occupies the area of cca.14.5 ha.

R4407 Danubian forests of Salix alba with Rubus caesius

This habitat groups the vegetation of the deposits consisting primarily of *Salix species*. It corresponds to the habitat Nature 2000 92A0 galleries of *Salix alba* and *Populus alba*. The habitat is frequently in all the rivers of the plains of the plain and high plain area of Romania,

with the tree layer composed of the willow trees (*Salix alba, S. fragilis* and *Populus alba, Populus nigra*), which can also add sporadig various other species such as *Fraxinus excelsior, Ulmus sp.*. Of the shrubs you can meet: *Cornus sanguinea*, *Viburnum opulus*, etc. The herbaceous layer is uneven as a rule, composed of *Agrostis stolonifera, Lysimachia nummularia, Lycopus europaeus* and (characteristic) *Rubus caesius*.

It is appreciated [6] that the conservative value of the habitat is high, as it is important as habitat for birds and various mammals and invertebrates. In the Valea din Sânandrei, this habitat is represented by small *Salix alba* streams associated with *Salix caprea*. In the past it is very likely that the wiles occupied larger surfaces, and their cutting as we could see continues today. We estimate the area occupied by this habitat in the site at cca.5 ha.

R5305 Danubian communities with Typha angustifolia and T. latifolia

The narrow rush and wide-rush stands constitute a habitat encountered in the resorts with stand-alone or smooth-running shallow water (cca.50 cm). The vegetable carpet is composed of these enlightening species, sometimes together with which there are still large herbaceous species of *Schoenoplectus lacustris, Glyceria maxima, Butomus umbellatus*, as well as various submerged or natant species (*Lemna minor, Myriophyllum gleatum, Ceratophyllum demersum*). In portions where the water level is very low, in some years without water, various species of palustre are stated.

The preservative value of the habitat is considered low because it does not contain species of high sozologic value. We have framed in this habitat the squares of the site, which on the whole occupies small surfaces (1-2 = ha).

R5310 Daco-Danubian communities with Carex elata, C. rostrata, C. riparias and C. acutiformis

Habitat that groups the vegetation of high highs on the banks of the rivers and lakes in the plain and Hill area. The fitocenoses of this kind are dense, edified mostly of *Carex* species, alongside which individuals or clumps of *Lythrum salicaria, Epilobium hirsutum, Lycopus europaeus, Senecio paludosa* are occurring.

The preservative value of the habitat is considered by [6] moderate; The vegetal communities of this type are important, however, in the fixation of the banks and constitute habitat for the species of invertebrates, aquatic mammals, birds, etc.

The habitat is present in the Valea din Sânandrei site on quite large surfaces, which can be called the major riverbed of the river Surduc. Cumulated, the habitat occupies an area of approx. 24-25 ha. This is the habitat in which *Sonchus palustris* meets.

Fig.9. Negative anthropogenic pressures on the site.

The current negative anthropogenic pressures on the site (Fig.9.), which have been identified (by Nature 2000 codes-http://cdr.eionet.europa.eu/help/natura2000) following analyses carried out on the ground, in the site of community importance Valea din Sânandrei are presented as follows:

A07 – use of chemicals
A08 – fertilisation
B02.02 – forestry clearance
F03.01 – hunting
J01 – fire
I01 – invasive non-native species (*Asclepias syriaca*, *Prunus cerasifera*, etc.)

The site represents a refuge for some animals such as deer, foxes, wild boar, rabbits, etc. By hunting activities in the site, we risk further removing the few animals that are shelting here. It was found that invasive species are present on the site, such as the above but do not occupy extensive surfaces in such a way as to have a significant impact on the site.As a result of the movements carried out over time, burned surfaces were identified, as a result of the fires being affected vegetation and the diversity of the site.

CONCLUSIONS AND RECOMMENDATIONS

1. In the studied area we identified 137 species of cormophytic, belonging to 40 botanical families.
2. Excluding anthropic surfaces, in the site we identified the following habitats (R5309 Danubian communities with *Phragmite Saustralis* and *Schoenoplectus lacustris*, R4407-forests of *Salix alba* with *Rubus caesius*, R5305 – Danubian communities with *Typha angustifolia* and *T. latifolia*, R5310 Daco-Danubian communities with *Carex elata*, *C. rostrata*, *C. riparias* and *C. acutiformis*).
3. We have not identified large species of sozologic importance, but only 36 species falling within the category LC.
4. The population of *Sonchus palustris* was estimated at 1760 individuals.
5. Relatively small populations of invasive species are present in the site: *Ambrosia artemisiifolia* (ambrozie), *Artemisia annuua* (năfurică), *Asclepia syriaca* (asclepia), *Conyza canadensis* (bătrâniș), *Galinsoga parviflora* (busuioacă), *Morus alba* (dud alb), *Prunus cerasifera* (corcoduș), *Sorghum halepense* (costrei), *Veronica persica* (șopârliță).
6. The communities and habitats in the site are under negative impacts such as: the use of fertilisers and other chemicals, deforestation, hunting actions, the presence of invasive species (*Asclepia syriaca*, *Prunus Cerasifera*, *Robinia pseudoacacia*), arson. Of these, agricultural activities are the most important.
7. As the main management measure, it is recommended to limit the quantities of fertilisers (especially nitrogen) used on parcels in the immediate vicinity of the site.

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