Buletinul Grădinii Botanice Iaşi
Tomul 14, 2007

THE PROTECTED SPECIES INCLUDED IN ROMANIAN RED LIST FROM THE NATURAL PARK VÂNĂTORI-NEAMȚ

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Abstract: This article intends to present to you the protected plants from the Natural Park Vânători Neamț

Key words: Romanian Red List, protected species, species conservation

Introduction

This park is placed in north of Neamt County on the boundary with Suceava County, nearby some localities: Crăcăoani, Agapia, Vânători-Neamț, Tg. Neamț town and two resorts - Bălțăteşti and Oglinzi. From the geographical point of view, the park stretches over the eastern slope on Stânişoarei Mountains and Neamț Sub-Carpathian hills.The results of the investigation developed between the years 2004-2006, as well as the existing literature data in the field, on the floristic diversity of the Natural Park Vânători Neamț, put into evidence the presence of 982 chormophyte species (**Tab.1).**

Until now, from the studies performed, a number of 99 plants are protected, being included in Romanian Red Lists [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12].

Material and methods

The establishment of the protected plants was made on the basis of: *Red List of extinct endangered, vulnerable and rare higher plants of Romania flora* (Boşcaiu N., Coldea Gh., Horeanu Cl., 1994), *Rare vulnerable and endemic plants of Romania flora – The Red List* (Dihoru Gh., Dihoru Alexandrina, 1994), *The Red List of higher plants of Romania flora* (Oltean M., Negrean G., Popescu A., Roman N., Dihoru G., Sanda V., Mihăilescu S., 1994), *The threatened plants from Moldova* (Sârbu I., Oprea A., Lupu I., 2005) [13, 14, 15, 16].

Results and discussions

Until now, 99 species are included in Romanian Red List, such as: 6 endemic species, 72 rare species, 7 vulnerable species, one specie is endangered (*Hippocrepis comosa L.*), 3 disappeared species (*Potentilla thyrsiflora* Zimm*., Euphorbia brittingeri* Opis., *Thelypteris palustris* Schott) and 10 unthreatened species (**Tab. 1**) [13, 14, 15, 16, 17, 18].

The Natural Park Vânători Neamț has three natural reservations in which are protected plants such as: „The Silver Forest": *Genista tinctoria* L. ssp. *oligosperma* (Andrae) Borza, *Melampyrum pratense* L., *Listera ovata* (L.) R.Bv., „Copper Forest":

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Genista tinctoria L. ssp. *oligosperma* (Andrae) Borza, ,,The Oak Reservation Dumbrava": *Epipactis helleborine* (L.) Crantz, *Sisymbrium strictissimum* L. [17, 18]

One of the major objectives of Vânători Neamț Natural Park´s Administration is the keeping of biodiversity through the maintenance of the key species and ecosystems, as well as of the landscapes within the park. Starting to 2002, five monitoring protocols have been implemented in the field with the help of a team of volunteer biologists from different scientific institutions with which the park´s administration co-operates. These protocols are:

- Identification and mapping of species of tisa (*Taxus baccata*) - a species declared nature monument in Romania.
- Monitoring and mapping of breeding areas of the species of amphibians and lenctic habitats, focused mainly on the study of the species of *Triturus montandoni* - Carpathian endemism.
- Monitoring of oak sapling´s regeneration from Dumbrava Oak Reservation.
- Monitoring of storks which nest within the park – the storks being species that indicate ecosystems unaffected by the antropic impact.
- Monitoring of pastures within the park [18].

Tab. 1 Plants registered in various Romanian Red Lists

The Red List	Oltean M., Negrean G. & al. 1994	Boşcaiu N., Coldea Gh., Horeanu Cl., 1994	Dihoru Gh., Dihoru Alexandrina, 1994	In this article
1. Abies alba Miller	B E	-	-	-nt
2. Aconitum moldavicum Hacq. (*A. hostenum* Schur)	-	-	-	R Ed
3. Adenophora liliifolia (L.) A. DC.	-	-	V	V
4. Agrimonia repens L.	R	-	-	R
5. Alchemilla crinita Busev	R	-	-	R
6. Allium schoenoprasum ssp. *sibiricum* (L.) Hartman	R	-	-	R
7. Anacamptis pyramidalis L. (L.C.M. Richard)	V/R	-	-	V
8. Arnica montana L.	V	-	-	V
9. Asperula taurina ssp. *leucanthera* (G.Beck) Hayek	R	-	-	R
10. Athyrium distentifolium Tausch.	-	-	R	R
11. Carex depauperata Curt. ex.With	R	-	R	R
12. Carex disticha Huds.	R	-	-	R
13. Carex secalina Wahlenb.	R	-	R	R
14. Carex strigosa Huds.	R	R	R	R
15. Centaurea solstitialis L.	-	-	-	R
16. Centaurea melanocalathia Borbás *(C. phrygia* ssp. *melanocalathia* (Borbás) Dostál)	-	-	-	R Ed

17. Cephalanthera damasonium Miller (Druce)	-nt	-	-	-nt
18. Cephalanthera longifolia (L.) Fritsch	-nt	-	-	-nt
19. Cephalanthera rubra L. (L.C.M. Richard)	R	-	-	R
20. Cerasus mahaleb (L.) Miller	R	-	-	R
21. Chamerion dodonaei (Vill.) Holub	-	-	-	R
22. Cirsium decussatum Janka	B R	-	-	R
23. Cirsium grecescui Rony	R	-	R	R
24. Cnidium dubium (Schkuhr) Thell	R	-	R	R
25. Centaurea carpatica (Porcius) Porcius ssp. *raraurensis* (Prodan) Ciocârlan	A R	-	-	R
26. Cystopteris sudetica A.Br. et Milde	R	-	R	R
27. Dactylorhiza cordigera ssp. *cordigera* Fries (Soó)	R	-	-	R
28. Dactylorhiza maculata (L.) Soó	R	-	-	R
29. Dactylorhiza sambucina (L.) Soó	R	-	-	R
30. Dianthus campestris Bieb. ssp. *campestris*	R	R	V	R
31. Dianthus collinus Waldst et Kit. ssp. *glabriusculus* (Kit.) Thaisz	R	-	I	R
32. Dianthus superbus L.	R	-	-	R
33. Dryopteris cristata (L.) A. Gray	R	-	R	R
34. Epipactis atrorubens (Hoffm.) Besser	R	-	-	R
35. Epipactis helleborine (L.) Crantz	R	-	-	R
36. Epipogum aphyllum (Schmidt) Sw	R	V	R	R
37. Epipogium purpurata Sm.				R
38. Euphorbia brittingeri Opis.		-	I	Ex
39. Fragaria moschata Weston	K	-	-	-nt
40. Galium rotundifolium L.	-	-	R	R
41. Genista tinctoria L. ssp. *oligosperma* Andrae	-	-	-nt (Ed)	R Ed
42. Gentiana pneumonanthe L.	-	V	-	-nt
43. Gladiolus imbricatus L.	-	-	R	-nt
44. Gymnadenia conopsea ssp. *conopsea* (L.) R. Bv.	R	-	-	R
45. Gymnadenia odoratissima L. (L.C.M. Richard)	R	-	-	R
46. Helleborus odorus W. et K.	Ex	-	V	R
47. Hepatica transsilvanica Fuss	A nt	-	-nt Ed	R Ed

48. Hieracium virosum Pall.	-	-	R	R
49. Hippocrepis comosa L.	-	R	V	E Ed
50. Hyoscyamus niger L.	-	R	-	-nt
51. Juncus acutiflorus Ehrh. ex Hoffm.	-	-	-	R
52. Larix decidua ssp. *decidua* (Domin) Siman	b R	R	-	R
53. Legousia speculum-veneris (L.) Chaix	R	-	-	R
54. Leucanthemum waldesteinii (Schultz Bip.) Pouzar	B R	-	-	R
55. Listera ovata (L.) R. Bv.	-	-	-	R
56. Luzula forsteri (Sm.) DC.	R	-	-	R
57. Luzula luzulina (Vill.) Dalla Torre & Sarnth	R	-	R	R
58. Lychnis viscaria L. ssp. *atropurpurea* (Griseb.) Chater	R	-	R	R
59. Melampyrum nemorosum L.	-	-	R (K)	-nt
60. Melampyrum pratense L.	-	-	-	R
61. Mercurialis annua L.	-	-	R	R
62. Mercurialis ovata Steinb. et Hoppe	R	-	-	R
63. Microstylis monophyllos (L.) Lindley	R	-	-	R
64. Monotropa hypopitys L.	R	-	-	R
65. Neottia nidus-avis L. (L.C.M. Richard)	R	-	-	R
66. Orchys coriophora L. ssp. *coriophora* (Pollini) K. Richter	R	-	-	R
67. Orchys coriophora L. ssp. *fragrans* (Pollini) K. Richter	-	-	-	R
68. Orchys morio L. ssp. *morio*	R	-	-	R
69. Pedicularis exaltata Besser	R	-	-	R
70. Pedicularis sceptrum-carolinum L.	R	V	V	V
71. Petasites paradoxus (Retz.) Baumg.	K	-	-	R
72. Phleum bertolonii DC. (*H. nodosum* auct.non L.)	-	-	-	R
73. Pinus sylvestris L.	R	-	-	R
74. Platanthera bifolia L. (L.C.M. Richard)	R	-	-	R
75. Polemonium caeruleum L.	R	E	R	R
76. Potamogeton compressus L.	R	R	R	R
77. Potamogeton obtusifolius Mert. et Koch	-	-	-	V
78. Potentilla neumaniana Rchb.	R	-	R	R

79. Potentilla thyrsiflora Zimmeter	Ex	-	-	Ex
80. Ranunculus carpaticus Herb.	b R	-	-	R Ed
81. Ranunculus circinatus Sibth.	R	R	-	R
82. Ribes spicatum Robson	R	I	R	R
83. Rubus colemannii Bloxam. ssp. *colemannii*	R	-	-	R
84. Rumex obtusifolius L. ssp. *subalpinus* (Schur) Čelak	-	-	-	R
85. Salix bicolor Ehrh.	R	R	-	R
86. Scabiosa lucida Vill. ssp. *barbata* E.I. Nyárády	A R	-	-	R
87. Scabiosa columbaria L. ssp. *pseudobanatica* (Schur) Jáv. et Csapody	A R	-	-	R
88. Scandix pecten-veneris L. ssp. *pecten-veneris*	R	-	-	R
89. Scorzonera humilis L.	R	-	R	R
90. Serratula lycopifolia Vill.	V/R	-	-	V
91. Symphytum cordatum Waldst. et Kit.	-	-	-	R Ed
92. Sisymbrium officinale (L.) Scop.	-	-	E	-nt
93. Sisymbrium strictisimmum L.	-	-	E	-nt
94. Taxus baccata L.	V/R	V	R	V
95. Tetragonolobus maritimus (L.) Roth	-	-	-	R
96. Thelypteris palustris Schott	B E	-	-	Ex
97. Traunsteinera globosa (L.) Rchb.	R	-	-	R
98. Trolius europaeus L. ssp. *europaeus*	R	-	V	R
99. Valeriana dioica L.	R	-	-	R

Conclusions

From the studies performed until now was identified 982 chormophyte species, and a number of 99 plants are protected: 6 endemic plants, 72 rare plants, 7 vulnerable plants, one species is endangered (*Hippocrepis comosa*), 3 disappeared plants (*Euphorbia brittingeri, Potentilla thyrsiflora, Thelypteris palustris*) and 10 unthreatened species.

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