



## **Implications of Philately in Promoting the Protected Natural Areas (V) - Rodna Mountains National Park**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. Authors BVC and ALP designed the study, performed the literature searches and wrote the first draft of the manuscript. Authors MC and ANH managed the analyses of the study. All authors read and approved the final manuscript.*

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### **ABSTRACT**

As part of the natural heritage, our country (Romania) is a blessed place with many areas of unique beauty, with places where the spectacle of nature delights your eyes and take your breath with every step. Constantly promoting philatelic themes that use natural wealth and the beauty of our country as subjects, the administrative entity (with various names over time), nowadays Romfilatelia, responsible for issuing postage stamps performs a series of postage stamps in whose images are found rarities of flora and fauna, a miracle of nature. To show that protected natural areas have a

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special beauty, and to make them known to everyone and also to show the implications of thematic philately in the promotion of protected areas in the country and abroad, in this paper, we bring to the discussion the most significant philatelic peculiarities (stamps, first-day covers, illustrated and semi-illustrated postcard, maximum postcards, etc) related to the Rodna Mountains National Park.

*Keywords: Biodiversity; natural heritage; philatelic issues; endangered species.*

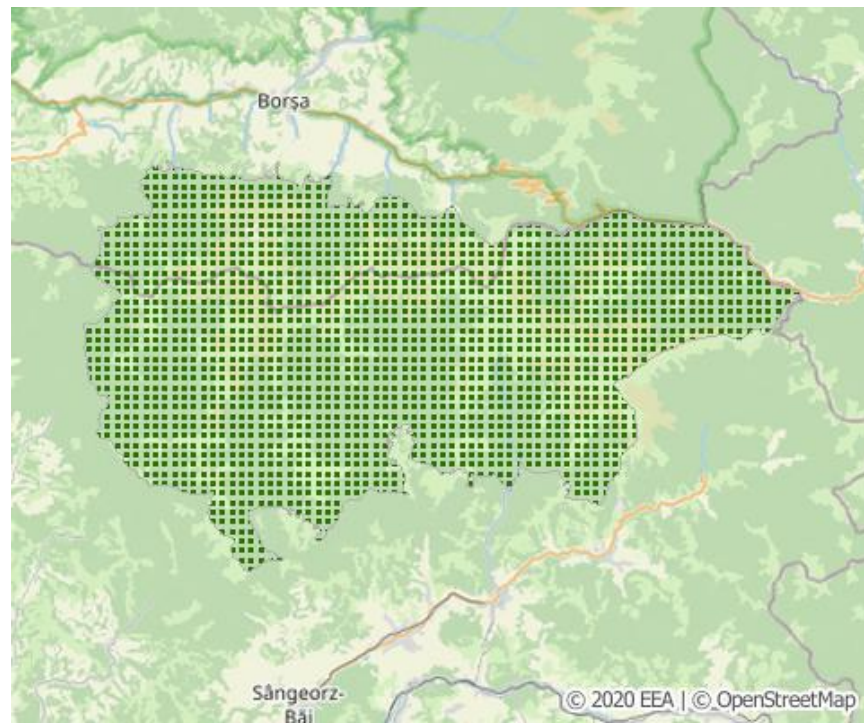
## 1. INTRODUCTION

Rodna Mountains National Park (abbreviated RMNP) is a protected area of national interest, which corresponds to the second category of IUCN, located in northern Romania, on the territories of Bistrița-Năsăud and Maramureș counties, in the central area of Rodna Mountains. The RMNP is also designated internationally as a Biosphere Reserve by the UNESCO Committee, under the "Man and the Biosphere" program [1,2].

The importance of this park is due both to the geology and geomorphology of the mountain range [3] and to the presence of numerous species of flora and fauna, endemics, and glacial relics (over 1100 species have been inventoried, and 67 glacial lakes) [4,5]. It was organized in 1990 when the Ministry of Waters, Forests and Environmental Protection issued Order no. 7 on

the establishment of 13 national parks, including the Rodna Mountains National Park [3]. This order caused some confusion because it refers only to forest areas in national parks, not to areas with alpine gaps.

The protected natural area extends in the eastern extremity of Maramureș county (on the administrative territories of Moisei and Săcel communes and Borșa) and the northeastern part of Bistrița-Năsăud county (on the territories of Maieru, Parva, Rebrîșoara, Rodna, Romuli communes, Șanț and Telciu and that of Sângeorz-Băi) [1,2]. The current area is established in 2002 by the Ministry of Water and Environmental Protection. Of the total area of 47,208 ha of PNMR, 3,300 ha was declared Biosphere Reserve. The national park overlaps both the site of Community importance (SCI) and the special avifauna protection area (SPA) - Rodna Mountains [1,6].



**Fig. 1. Reference area of Rodna Mountains National Park (Romania) [6]**

În Parcul Național Munții Rodnei se regăsesc mai multe arii naturale de un deosebit interes științific, geologic, peisagistic, floristic, faunistic și speologic, dintre care: Pietrosu Mare, Piatra Rea, Poiana cu narcise de pe Masivul Sacă, Peștera din Valea Cobășelului, Ineu - Lala, Peștera Izvorul Tăușoarelor, Izvorul Bătrâna, Izvoarele Mihăiesei, respectiv Peștera și izbul Izvorul Albastru al Izei - majoritatea legiferate odată cu constituirea parcului [7,8].

In the Rodna Mountains National Park there are several natural areas of special scientific, geological, landscape, floristic, faunal and speleological interest, of which: Pietrosu Mare, Piatra Rea, Daffodil meadow on the Sacă Massif, Valea Cobășelului Cave, Ineu - Lala, Tăușoarelor Cave, Bătrâna Spring, Mihăiesei Spring, respectively the Cave and the Blue Spring of Iza - most of them legislated once the park was established [7,8].

## 2. MATERIALS AND METHODS

The documentation for this paper started from the authors' concerns for ecological education and environmental protection [9,10], and not least because they love the idea of a harmoniously developed community with care for protected areas [11,12]. Having at hand a series of extremely relevant studies at the national level, both in terms of the management of protected areas [13-15] and the philatelic issues published in catalogs and journals [16,17], the authors decided to extrapolate the respective approaches on the existing ecosystem in the Rodna Mountains National Park (Romania). The subject of the study, in the form of a philatelic circuit of Rodna Mountains National Park, is based on the sites that host philatelic content such as Allnumis, Colnect, Delcampe, eBay, Jurnalul filatelic, Okazii, PicClick, Romfilatelia, Stamp World, which come in addition to discussion forums and online meetings (more than 12 such discussions) with other collectors and passionate philatelists.

## 3. RESULTS AND DISCUSSIONS

### 3.1 Rodna Mountains National Park from an Ecological Perspective

The Rodna Mountains present a natural area with a high floristic and faunal diversity, expressed both at the level of species and the

level of terrestrial ecosystems. The natural area has several types of habitats [1,2,18] - alpine and boreal scrub, shrubs with sub-arctic species, boreal and alpine meadows on a siliceous substrate, alpine and subalpine calcareous meadows, mountain meadows, Dacian beech forests, edge grasslands with high grasses from the plains to the mountains and the alps, transitional peat bogs and oscillating peat bogs, siliceous rubble from the mountain floor, calcareous and calcareous rubble from the mountain to the alpine floor, herbaceous and woody vegetation along the mountain rivers, active peat bogs, caves where public access is forbidden, rocky slopes - which house a diverse range of flora and fauna specific to the Carpathian chain.

The flora of the national park consists of plant species distributed in layers, following the geological structure, soil, and climate characteristics, respectively the geomorphological structure or altitude [1,2,18]. Conifers with arboreal species of fir (*Abies alba*), spruce (*Picea abies*), larch (*Larix decidua*), lime (*Pinus cembra*), yew (*Taxus baccata*). Hardwood species with oak (*Quercus petraea*), oak (*Quercus robur*), beech (*Fagus sylvatica*), hornbeam (*Carpinus betulus*), maple (*Acer pseudoplatanus*), linden (*Tilia cordata*), ash (*Fraxinus excelsior*), wild chestnut (*Aesculus hippocastanum*), elm (*Ulmus glabra*), juvenile (*Acer campestre*), birch (*Betula pendula*), black alder (*Alnus glutinosa*), white willow (*Salix alba*) and willow (*Salix caprea*). At the level of herbs, there is a diverse range of plants (some very rare and protected by law, others endemic) with species of mountain peony (*Rhododendron kotshyi*), cornflower (*Leontopodium alpinum*), angelica (*Angelica archangelica*), narcissus (*Narcissus stellaris*), mountain bulb (*Trollius europaeus*), variegated tulip (*Fritillaria meleagris*), arnica (*Arnica montana*) and Rodna Mountains lily (*Lychnis nivalis*) [2,18].

The park's fauna is diverse and well represented by several species - over 1100 species of flora and fauna indexed throughout the park (some protected by law and on the IUCN red list) of mammals, birds, fish, reptiles, and amphibians. Protected animals refer to species of black goat or chamois (*Rupicapra rupicapra*), marmot (*Marmota marmota*), Carpathian bear (*Ursus arctos*), river otter (*Lutra lutra*), lynx (*Lynx lynx*), wild cat (*Felis silvestris*), stone marten (*Martes foina*), weasel (*Mustela nivalis*), fox (*Vulpes vulpes*), deer (*Capreolus capreolus*), wild boar

(*Sus scrofa*), squirrel (*Sciurus vulgaris*), ground mouse (*Microtus agrestis*), field mouse (*Microtus arvalis*), mole (*Talpa europaea*), mouse-eared bat (*Myotis blythii*) and common bat (*Myotis myotis*) [1,2,18].

There are several avifauna species (migratory or in transit) listed in Annex Ia to European Council Directive 147/EC of 30 November 2009 on the conservation of wild birds, including the golden eagle (*Aquila chrysaetos*), the black stork (*Ciconia nigra*), white-backed woodpecker (*Dendrocopos leucotos*), black woodpecker (*Dryocopus martius*), woodpecker (*Picoides tridactylus*), ciuvica (*Glaucidium passerinum*), red locust (*Lanius collurio*), and sea urchin (*Strix uralensis*). They live in the company of the little eagle (*Hieratus penatus*), the dwarf tufted (*Otus scops*), the owl (*Bubo bubo*), the white stork (*Ciconia ciconia*), the gray heron (*Ardea cinerea*), and the birch rooster (*Lyrurus tetrix*) [1,2,19].

The category of reptiles and amphibians includes the field lizard (*Lacerta agilis*), the lizard (*Lacerta viridis*), the hazel snake (*Coronella austriaca*), the blind snake (*Anguis fragilis*), the weasel (*Natrix natrix*), the viper (*Vipera berus*), ivory-yellow-bellied newt (*Bombina variegata*), crested newt (*Triturus cristatus*), mountain newt (*Triturus alpestris*), common newt (*Triturus vulgaris*), red forest frog (*Rana dalmatina*) and mountain frog (*Rana temporaria*), and fire salamander (*Salamandra salamandra*) [1,2]. Some amphibian and reptile species are indexed according to the tables in the Appendix section [20].

### 3.2 Rodna Mountains National Park from a Carto-philatelic Perspective

From a postal-philatelic point of view, the research undertaken on the main e-commerce sites with philatelic content led us to identify the pieces reproduced in Fig. 2a [21], Fig. 2b [22-25], Fig. 2c [26-31], Fig. 2d [32], Fig. 2e [33,34], Fig. 2f [35] and Fig. 2g [36-39].

In order to support the efforts to protect the environment that must be preserved for future generations, Romfilatelia introduced into circulation, on March 28, 2009, the stamp issue entitled "Flora from protected areas - Rodna Mountains" [16,40-43]. Stamp collectors and not only had the opportunity to discover illustrated species of flora such as the Edelweiss, Alpine Aster, Large Pink, Pigeon's Gizzard, Bell flowers and Martagon Lily (Fig. 3) [41,43].

The fang flower or Edelweiss (*Leontopodium alpinum*), a true wonder of nature, declared a monument of nature and protected by law, is illustrated on the stamp with a face value of 0.30 lei. It is a perennial plant, with a straight stem, without branches, 5-20 cm high in Romania, but in other countries, it can be taller than 50-80 cm. The Edelweiss grows in the alpine area, but sometimes we also find it in subalpine regions. It is clad at the top with hairy leaves, some larger, some smaller, taking the shape of a star. The plant is covered with velvety and silver hairs, which gives it tenderness and beauty.

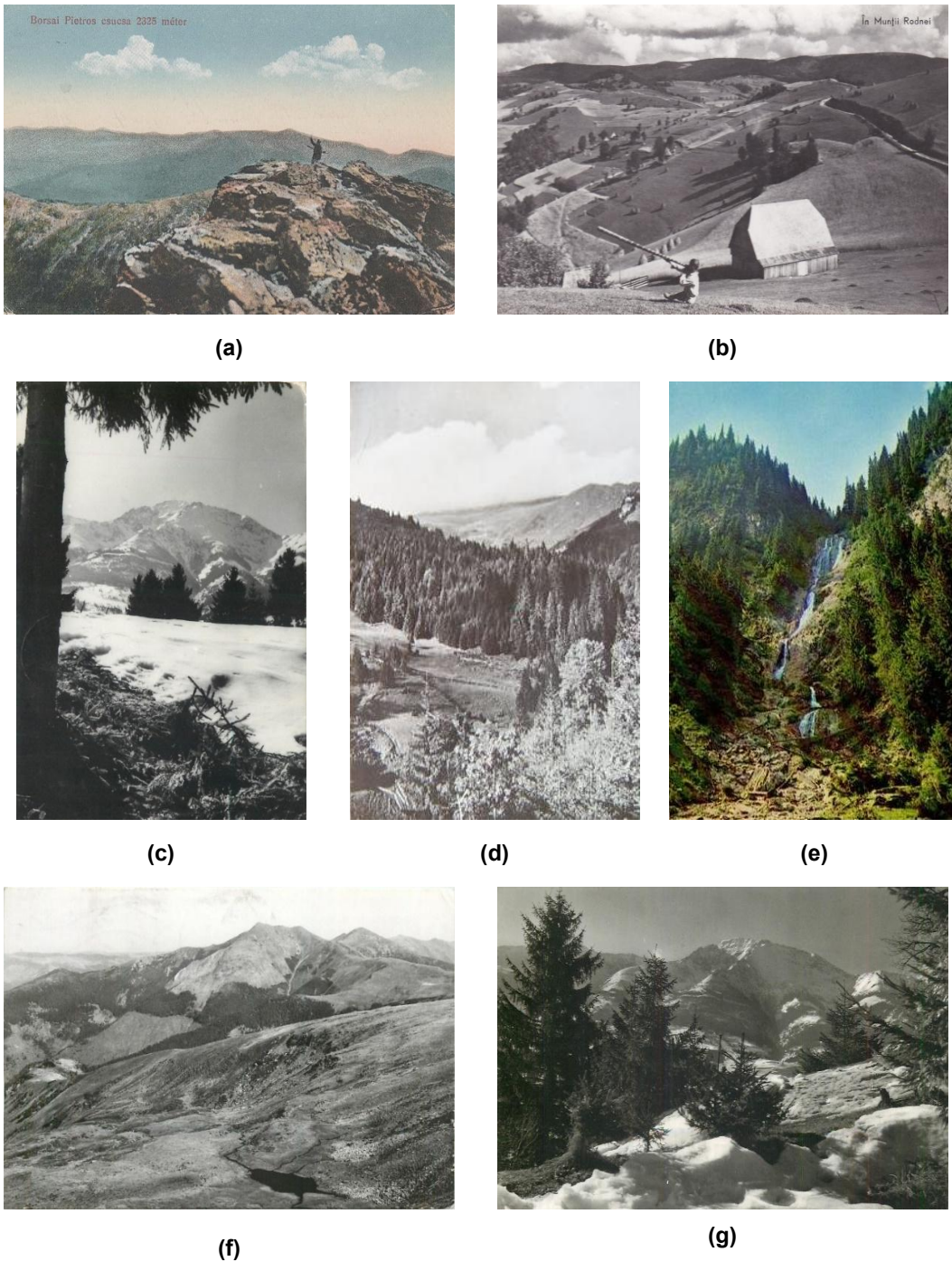
The Alpine Aster (*Aster alpinus*) is illustrated on the stamp with a face value of 0.60 lei. The alpine star is a short plant, characteristic of the subalpine and alpine area, which grows on a rocky substrate, in sunny places, and has a height of 10-15 cm. Its flowers are 5 cm in diameter, and its color is pink and yellow in the center.

The Large Pink (*Dianthus superbus*) is illustrated on the stamp with a face value of 1.00 lei. The mountain carnations form bushes, have thin stems, up to 30 cm high, and have a few flowers with a diameter of 1.5-2.5 cm at the top. The leaves are narrow, arranged in pairs; those at the base of the stem are numerous and thin. The mountain carnation blooms in June-July and we meet it in grassy and rocky places, sometimes even on bare rocks.

The Pigeon's Gizzard of the Rodna Mountains (*Silene nivalis*) is illustrated on the stamp with a face value of 1.20 lei. It is the most famous flower, an endemic species that represents the emblem of the Rodna Mountains National Park, this being the only distribution area.

The Bell flowers (*Campanula persicifolia*) are illustrated on the stamp with a face value of 2.40 lei. They are a perennial species, with a height of 30-70 cm. It blooms between June and July and we find it at the edge of the forests, but also on the mountain paths to which it gives a brightly colored decoration.

The Martagon Lily (*Lilium martagon*) is illustrated on the stamp with a face value of 3.10 lei. This is one of the oldest flowers grown by man, even older than the rose. Originally from Europe, it reaches 100 cm in height and has purple flowers. The petals are twisted outwards, displaying a special beauty.



**Fig. 2. Landscape postcards from the Rodna Mountains National Park area**

The issue of postage stamps is supplemented by the set of two first-day covers, those officially issued (see Fig. 4a-b) [40,44,45], as well as in a particular variant (see Fig. 4c-d) [46] and the set of six maximum postcards (see Fig. 5) [47-52], and the block of 6 stamps in the philatelic album.

It is made in a limited edition of 245 copies and is equipped with the special issue block (containing six lacy stamps with illustrated cuff), as well as the envelopes with the words "first day of issue" with the stamp "first day" clearly applied with folio.



Fig. 3. Stamps of the "Flora from protected areas - Rodna Mountains" issue, March 28, 2009, Bucharest

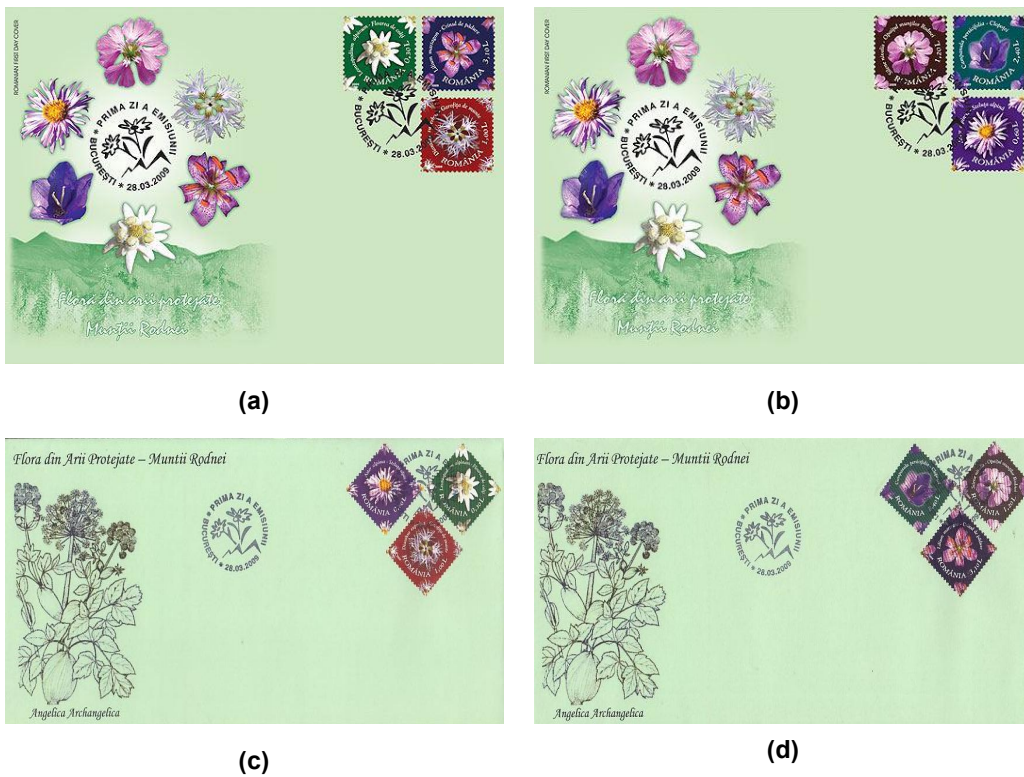


Fig. 4. FDCs of the "Flora from protected areas - Rodna Mountains" issue, March 28, 2009, Bucharest

Regarding the technical characteristics of the show "Flora from protected areas - Rodna Mountains", they have been summarized in Table 1, and refer to both stamps and block and packages [16,17,42,43]. Also, the configuration of the good printing page was indexed, being

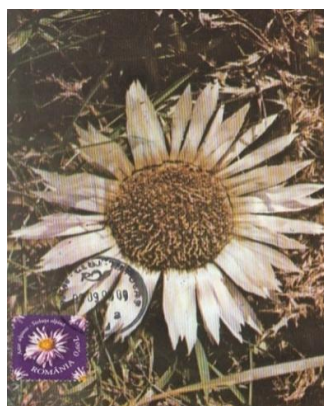
made specific references to the number of parts issued, the layout, and the printing system itself. Compared to other philatelic issues regarding protected areas, it can be mentioned that this issue is rich as copies, as well as pieces circulated.

**Table 1. Technical characteristics for the stamps of the "Flora from protected areas - Rodna Mountains" issue, March 28, 2009, Bucharest**

Technical characteristics	Values and other observations
Date of issue	28.03.2009
Number of values	6
Stamp/Block/Minisheet size	24×24 mm/- mm/- mm
Page composition	In sheet of 50 stamps, minisheet of 8 stamps + 1 label with illustrated border and block of imperforated stamps
Printing system	Offset, in 4 colours on chromo-gummed paper - UK origin
Run printing	2,006,640 stamps
Designer	Mihai Vămășescu
FDC	470 sets (2 covers) equipped with the postage stamps, numbered and cancelled with the „first-day” postmark
Listing	1830(set), 1830a (perforated souvenir sheet), and 1830b (philatelic album)



(a) *Leontopodium alpinum*



(b) *Aster alpinus*



(c) *Dianthus superbus*



(d) *Silene nivalis*



(e) *Campanula persicifolia*



(f) *Lilium martagon*

**Fig. 5. The maxicards of the "Flora from protected areas - Rodna Mountains" issue**

And because we brought into discussion the circulations of the issue, it is worth mentioning that they were among the most unexpected. Some interesting examples, from our point of view, have been reproduced in Fig. 6 [53-58] and Fig. 7 [59-62].

What we found interesting is that the parts identified in the e-commerce platforms,

especially Delcampe and PicClick, are mostly circulated primarily "by plane/air mail" (Fig. 6), or some even circulated on the relationship with foreign countries, to countries such as Spain, Bulgaria, Estonia and Denmark (see Fig. 7). The pieces in question, as expected, required additional stamps for postage, from completely different philatelic issues in use at the time.



(a) *Silene nivalis*



(b) *Silene nivalis*



(c) *Campanula persicifolia*



(d) *Silene nivalis*



(e) *Campanula persicifolia*



(f) *Aster alpinus*

Fig. 6. Circulations of the "Flora from protected areas - Rodna Mountains" issue





(a) *Leontopodium alpinum*



(b) *Silene nivalis*



(c) *Aster alpinus*



(d) *Campanula persicifolia*

Fig. 7. Other circulations of the "Flora from protected areas - Rodna Mountains" issue

#### 4. CONCLUSION

In the paper, we bring to the fore the area of Rodna Mountains National Park both from an ecological point of view - by presenting the species of flora and fauna in the form of a short inventory, and philatelic point of view - by analyzing, describing and disseminating the main pieces identified in within philatelic content e-commerce sites. We were impressed by the way in which over time the Romanian postal administration decided to promote protected natural areas, the pieces identified being of a rare beauty, especially those made in 2009.

We were also deeply impressed by the truly unique circulations of the pieces from the "Flora from Protected Areas - Rodna Mountains" issue, although they are not spectacular in number. However, the implications of thematic philately in the promotion of flora are noticeable (through the prism of the circulated pieces), most species being either unique or endangered and protected by law. Also, through this paper, we set out to highlight the idea of organizing pro-nature

exhibitions, in which to highlight a number of species (among the most vulnerable in the park) and presented them to take reminder of tourists or those who come in contact with the park area. Such material, as well as this material, can inspire and help control the activities that take place in the park, closely following the discouragement of 'tourism in boots', practically discouraging those who do not care about nature.

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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## APPENDIX

Table 1. The amphibian species from Rodna Mountains National Park

Nr.	Gen	Specie	Autor
1	<i>Salamandra</i>	<i>salamandra</i>	Linnaeus, 1758
2	<i>Triturus</i>	<i>alpestris</i>	Laurenti, 1768
3	<i>Triturus</i>	<i>montandoni</i>	Boulenger, 1880
4	<i>Triturus</i>	<i>vulgaris vulgaris</i>	Linnaeus, 1758
5	<i>Triturus</i>	<i>cristatus</i>	Laurenti, 1768
6	<i>Bombina</i>	<i>variegata</i>	Linnaeus, 1758
7	<i>Bufo</i>	<i>viridis</i>	Laurentus, 1768
8	<i>Bufo</i>	<i>bufo</i>	Linnaeus, 1759
9	<i>Rana</i>	<i>temporaria</i>	Linnaeus, 1758
10	<i>Rana</i>	<i>dalmatina</i>	Bonnaparte, 1839
11	<i>Rana</i>	<i>ridibunda</i>	Pallas 1771
12	<i>Hyla</i>	<i>arborea</i>	Linnaeus, 1758
13	<i>Rana</i>	<i>esculenta</i>	Linnaeus, 1758
14	<i>Rana</i>	<i>lessonae</i>	Camerano, 1878
15	<i>Pelobates</i>	<i>fuscus</i>	Laurenti, 1768

Table 2. The reptile species from Rodna Mountains National Park

Nr.	Gen	Specie	Autor
1	<i>Lacerta</i>	<i>agilis</i>	Linnaeus, 1758
2	<i>Zootoca</i>	<i>vivipara</i>	Von Jacquin, 1787
3	<i>Natrix</i>	<i>natrix</i>	Linnaeus, 1758
4	<i>Vipera</i>	<i>berus</i>	Linnaeus, 1758
5	<i>Elaphe</i>	<i>longissima</i>	Laurenti, 1768
6	<i>Anguis</i>	<i>fragilis</i>	Linnaeus, 1758
7	<i>Podarcis</i>	<i>muratis</i>	Laurenti, 1768
8	<i>Lacerta</i>	<i>viridis</i>	Linnaeus, 1758
9	<i>Coronella</i>	<i>austriaca</i>	Laurenti, 1768
10	<i>Natrix</i>	<i>tessellata</i>	Laurenti, 1768

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