

The Land Use within Nature 2000 Cusma Site

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Abstract. The high percentage of natural ecosystems within Natura 2000 Cusma Site, has determinate a high number of habitats and community interest species. A main activity of the European Ecological Network Natura 2000 is to conserve and protect the most representative species, together with the habitats they are living in. The right perpetuation of these species is correlated with the land use. Within Nature 2000 Cusma Site surface we can find arable land, forests, buildings, waters and swams. The most representative are the surfaces covered by forests, in other categories of land use detriment. Four game funds are found in Cusma site, three belonging to Bistrita Forest District (Cusma, Tihuta and Budac Game Funds). Most of the mountain areas within the site belong to the Colibita Game Fund and the hilly areas belong to Budac and Cusma Game Funds.

Keywords: game fund, administration, forests, arable land, meadows.

INTRODUCTION

One of the main reason for which Cusma Area was pronounced a Nature 2000 Site, is represented by the high percentage of surfaces covered by natural ecosystems. Therefore, a great number of community interest habitats and stable species are found here (Proorocu, Beldean and Oroian, 2007; Proorocu and all, 2008).

Considering the land use, Nature 2000 Cusma Site surface is divided in the next main categories: arable surface, forests, built surface and yards, waters and swamps. The arable surface includes lands that have an agricultural destination, belonging to individuals or parties and is classified in: arable land, natural grass lands, meadows and orchards (<http://www.ins.ro>). The forests contain lands covered by forest vegetation of trees and shrubberies that create a specific biological development environment with more than 0.25 ha surface.

RESULTS AND DISCUSSION

Almost the entire Cusma Site's area (99%) lies within the surface of 7 villages from Bistrita-Nasaud County (Bistrița-Bârgăului, Dumitrița, Josenii Bârgăului, Livezile, Prundu Bârgăului, Satu Nou-Cetate, Tiha Bârgăului Villages). The other 1% of the site belongs to Mures (Răstolița and Vatava Villages) and Suceava Counties (Poiana Stampei Village).

From these 76.700 ha belonging to the 7 villages from Bistrita-Nasaud County, 41.011 ha are covered by forests and 22.832 ha are represented by grass lands or meadows. Because of the high hilly and mountain area, only a little part is represented by arable lands (7.120 ha), buildings and infrastructure (1.719 ha) (Tab. 1).

Tab. 1

Categories of land use within the Cusma site villages (ha)

No.	Village	Arable Land	Meadows	Orchards	Forests	Waters	Built surface	Other categories
1	Bistrița	698	2327	123	14436	469	112	474
2	Cetate	1015	3051	420	1881	49	136	112
3	Dumitrița	793	3482	20	5645	133	107	116
4	Joseni	760	2361	438	991	96	62	849
5	Livezile	2038	4479	327	3506	139	95	354
6	Prundu	552	1736	176	1805	89	98	294
7	Tiha	1264	5396	46	12747	88	107	229
Total		7120	22832	1550	41011	1063	717	2428

Considering those 7 villages surface, 53.45% is represented by forests, 29.76% by grass lands and 9.28% by arable lands. The other categories of land use are low represented within the Cusma Site: 2.02% orchards, 1.39% waters, 0.93% built surfaces, 3.19% others (Fig. 1).

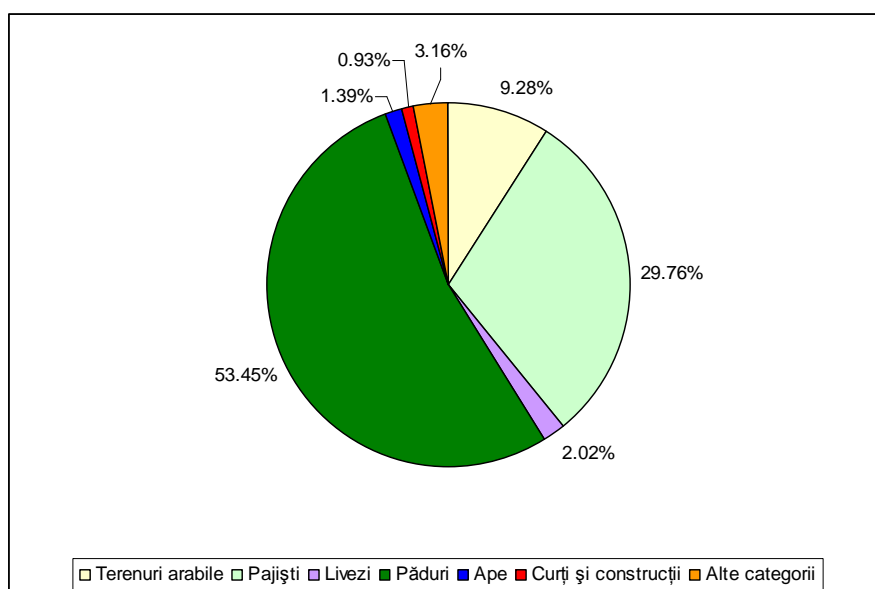


Fig. 1. Distribution of the categories of land use within the villages with surfaces belonging to the Cusma Site

Analyzing the situation above, the forest surfaces are the best represented (64.54%), to the detriment of the other categories of land use: meadows (26.59%), arable land (2.43%), orchards (2.98%), waters (1.05%), built surfaces (2.45%) (Tab. 2, Fig. 2).

Tab.2

Categories of land use within Nature 2000 Cusma Site (ha)

Arable lands	Meadows	Orchards	Waters	Forests	Built Surface	Total
1091,5	11924,2	1336	469	28946,6	1085,7	44853

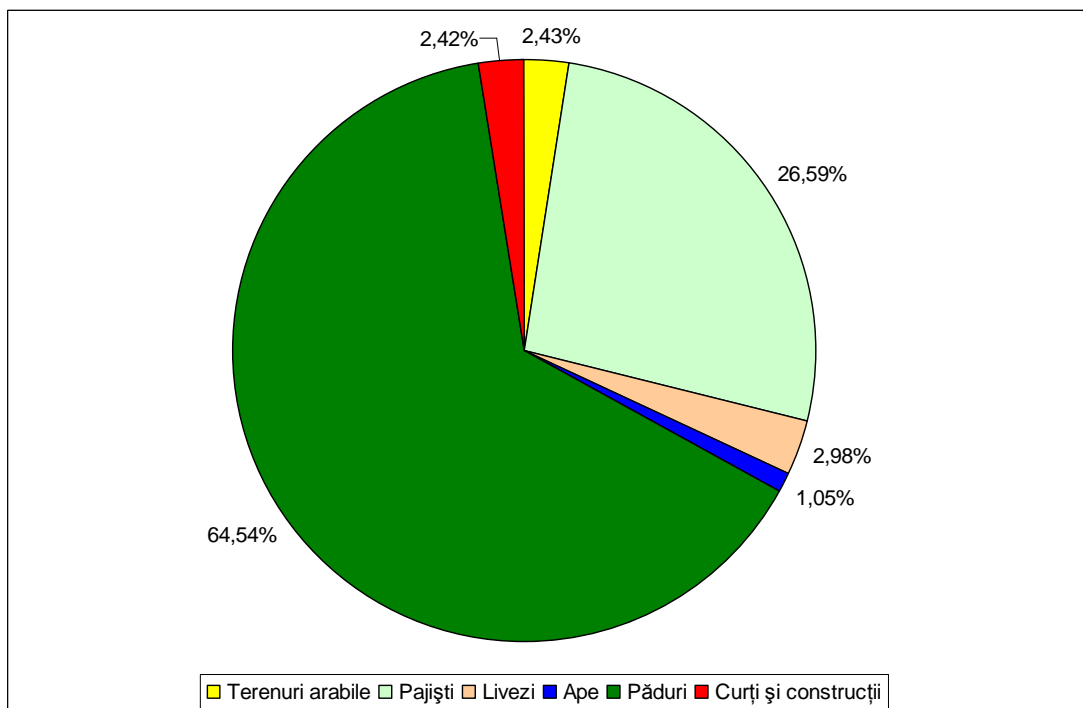


Fig. 3. Distribution of the categories of land use within Nature 2000 Cusma Site

The built surface distribution, represented by yards and buildings, is limited within the water meadows and the arable lands are situated nearby. The hilly areas from the North-West, West and South-West of the site, are covered by orchards and the rest of the territory is represented by forests and natural grass lands (Fig. 3).

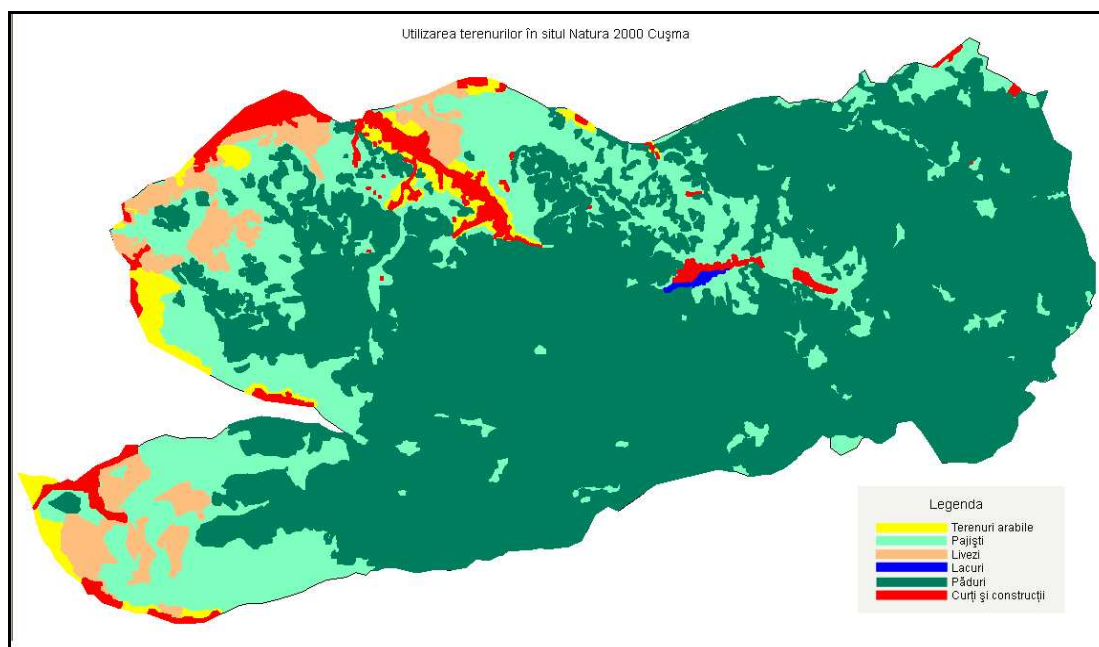


Fig. 3. Categories of land use within Cusma Site

For a good administration of Cusma Site, beside knowing the way the land is used, it is also necessary to identify the land repartition over the game funds and to establish a good collaboration with the competent authorities from the area, that represent the essential elements within local community life.

Within Cusma Site, four game funds are found, three belonging to Bistrita Forest District and one belonging to Bistrita-Tihuta Asociation (Tab. 3)

Tab. 3.

Game Funds administration within Cusma Site

Game fund administrator	Game Fund				
	No.	Name	Total surface (ha)	The surface within Cusma Site	
				Ha	% from the total game fund surface
Bistrita Forest District	24	Cuşma	13293	7371	55,45
	25	Tihuţa	14074	6263	44,50
	27	Budac	13282	9974	75,09
Bistrita-Tihuta Asociation	26	Colibiţa	22043	21028	95,40

Of all 4 game funds that have been identified, 26 Colibita Game Fund is the most remarkable, because it has a 22.000 ha surface, 95% included in the Cusma Site. Although Bistrita-Tihuta Asociation administrates only one game fund and Bistrita Forest District the other three, the site's surface is almost equal divided between these two authorities (Fig. 4).

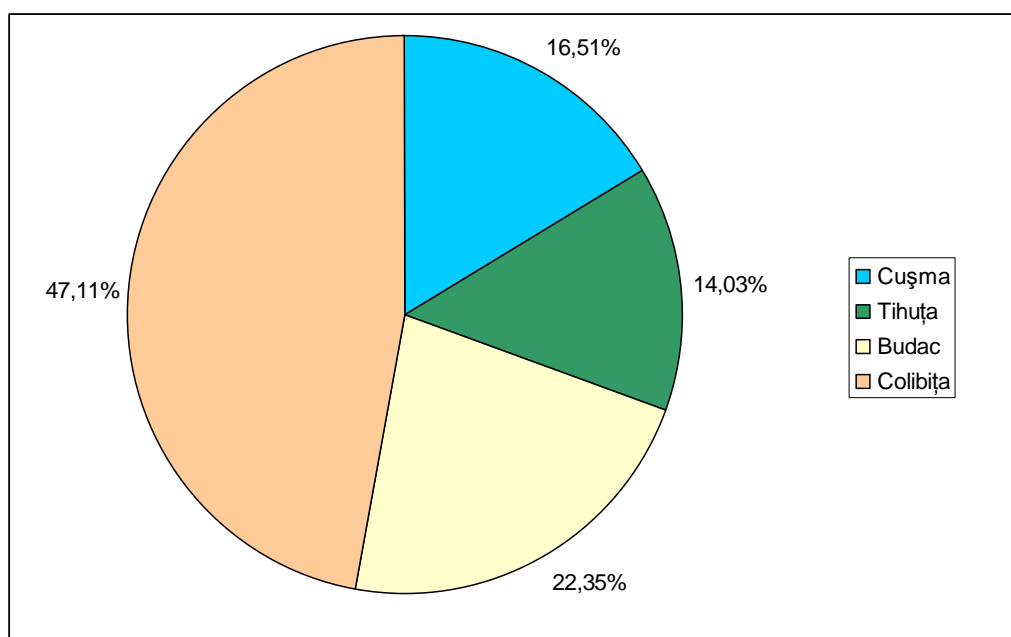


Fig. 4 Cusma Site's game fund procentual repartition

About the surface distribution over game funds, we can see that most of the mountain areas within the site belong to Colibita and Tihuta Game Funds and the hilly areas belong to Budac and Cusma Game Funds (Fig. 5).

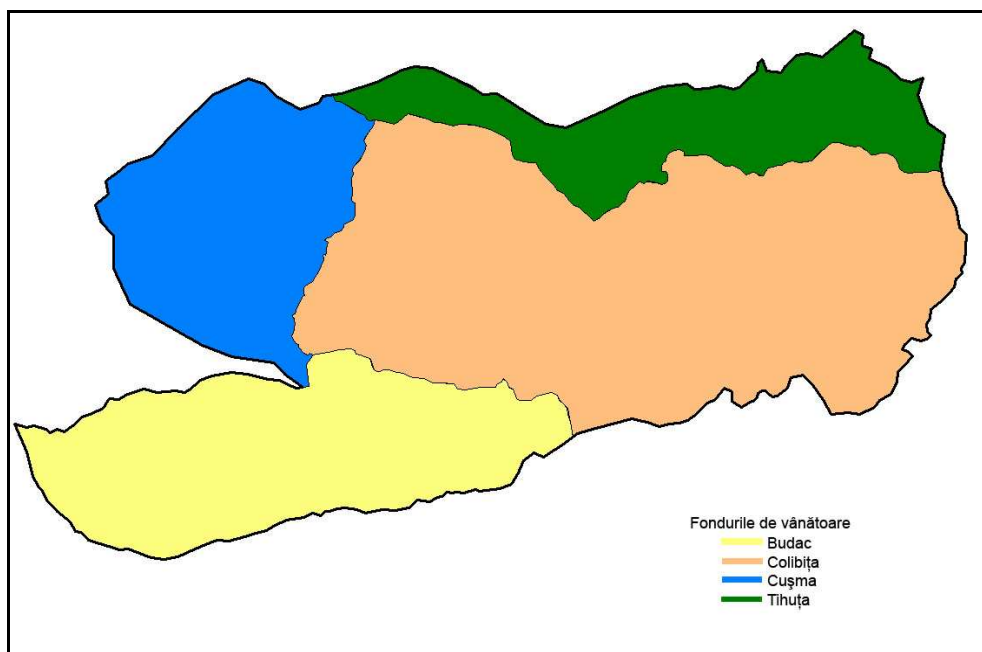


Fig. 5 Game fund within Cusma Site

CONCLUSIONS

- Most of Cusma Site (99%) belongs to Bistrita-Nasaud County and only 1% of its territory is in Mures and Suceava Counties. All the 7 villages from Bistrita-Nasaud County have a 76.700 ha surface: 41.011 ha (53,45%) forests, 22.832 ha (29,76%) meadows, 7.120 ha (9,28%) arable land and 5.737 ha built surfaces, waters or orches.
- Comparing to the general situation from the area, the site's 44.835 ha are best represented by the surfaces covered by forests (28.946 ha that represents 64.54%), in other categories of land use detriment: meadows (26,59%), arable land (2,43%), orches (2,98%), waters (1,05%), yards and buildings (2,45%).
- The hilly areas from North-West, West and South-West are covered by orches, arable land, yards and buildings are found in the valleys and the rest of the territory is covered by forests and natural meadows.
- Of all 4 game fund that have been identified, three belong to Bistrita Forest District (Cusma, Tihuța and Budac game funds) and one to Bistrita Forest District. 26 Colibița Game Fund is the most remarkable, because it has a 22.000 ha surface, 95% included in the Cusma Site, so the site's surface is almost equal divided between this two authorities.
- The mountain area is administrated by Bistrita-Tihuța Asociation, and the hilly area by Bistrita Forest District.

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