NATURAL AND AESTETIC VALUES OF VEGETATION IN MANOR PARKS AS POTENTIAL FOR TOURISTIC ON TRANSBOUDERY AREAS

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- plant species
- nature values
- touristic aspect

Abstract:
The paper was focused on natural and aesthetic values of selected manor parks in Poland.
The research include indoor and field research. It was done phytosociological releves and analysis of plant species. Plant species were grouped to phytosociological classes according to Matuszkiewicz [2012]. It was analysis plant species in tree, shrub and herb layers and distinguished alien and native plant species. The conclusion is that vegetation is disturbanced in manor parks. Natural, seminatural and synantropical plant species were occurred there. The high natural and aesthetic values of vegetation of parks have got influence for touristic aspect in these objects.

INTRODUCTION

Manor parks are characterized by high historical and natural values. among tourists. Historic parks, despite a considerable number of in our country approx. 15,000 buildings [MAJDECKI [1995]] not all are good 'condition'. These objects were previously inaccessible to the villagers, and later became the property of the society. Many of adverse events, ie. The outbreak of World War II, changing owners, unfavorable political situation had a significant impact on the current state of preservation of these objects [FIJAŁKOWSKI AND KSENIAK 1982].

The aim of the research was analysis of natural and aesthetics values of selected manor parks located on south-east part of Poland.

METHODOLOGY

The study is included field and indoor researches. It was analysis of plant species in 5 manor parks as Wielkie Oczy, Krowica Sama, Medyka, Kalnków, Wyszatyce and Nowe Sioło.The whole objects were established in XVIII/XIX c. It was done 40 phytosociological records [surface - 400 m2] in study areas using BRAUN-BLANQUET method [1951]. It was analysis plant species in tree, shrub and tree layers. It was prepare list of plant species with their classification to phytosociological classes according to Matuszkiewicz [2012]. Division of plants by life-forms according to Raunkiaer [1934]. Phanerophytes - plants with renewable buds located on the shoots more than 25 cm above the ground level, geophytes – a perennial plant, that resprouts by means of buds on underground bulbs or corms. hemicryptophytes - plants with buds and shoots located directly above the ground, geophytes – plants with buds within the soil, often with storing organs, chamaephytes - plants with buds above the ground and therophytes - annual plants that survive hostile time – drought or low temperatures in form of seeds. It was also distinguished alien and native plant species. The next stage of work was analysis of aesthetic values of vegetation in studied parks.

RESULTS AND DISCUSSION

Vegetation as one of the most important components in manor parks. Plant species belong to six phytosocoplogical classes and companion species. The highest percentage cover of plant species are represented by *Querco-Fagetea* class [47%] and companion species [20%]. The secound group as represented by *Artemisietea vulgaris* [16,6%] and *Molinio-Arrhenatheretea* classes. The others plant species belong to *Vaccinio-Piceetea* [3,3%], *Epilobietea angustifolii* [1,5%] and *Stellarietea mediae* [1,6%]. (Fig. 1)

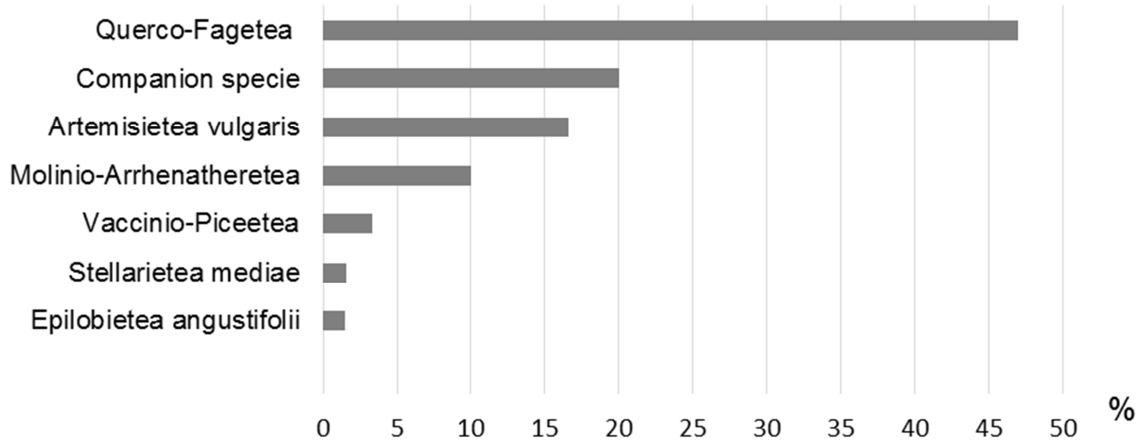

Figure 1. Percentage cover of plant species in phytosociological classes.

Accordnig to Raunkiaer [1934] classification it was analysis of plant species and grouped them to proper life-forms. It was recognized geophytes [percentage cover – 16,4%] like *Anemone nemerosa, Anemone ranunculoides Corydalis cava, Ficaria verna, Gagea lutea ,Galeobdolon luteum, Oxalis acetosella, Oxalis fontana.* Most plant species belong to hemicryptophytes [perentage cover - 47.3%] and phanerophytes [percentage cover – 32,7%]. Hemicryptophytes was represented by *Aegopodium podagrarią Anemone ranunculoides Circaea lutetiana Glechoma hederacea, Taraxacum officinale.* Phanerophytes were dominated in tree and shrub layers for example *Carpinus betulus, Acer platanoides, Robinia pseudoacacia Corylus avellana, Euonymus verrucosa.* It was very low percentage cover by therophytes as *Impatiens noli-tangere* and *Lapsana communis*[3.6%] (Fig. 2).

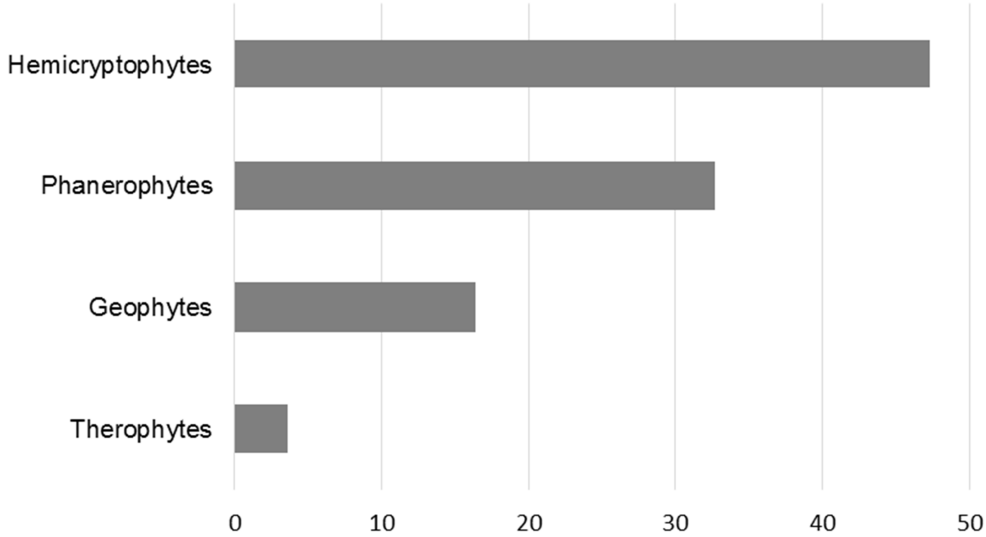

Figure 2. Percentage of plant species classificated to life-forms according to Raunkiaer [1934].

Manor parks were established in oak-hornbeam forest habitats, but now it was observed highest percentage cover by alien plant species than native ones Fig. 3. During the past, the owners planted alien species from different countries, because of create great tree species collection.

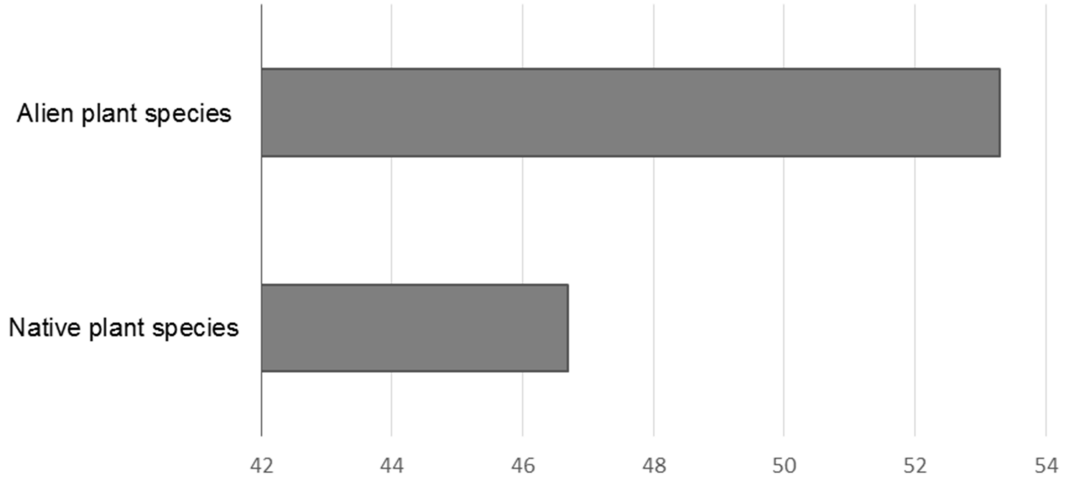

Figure 3. Percentage cover of native and alien plant species.

The native plant species are represented by plants typical for oak-hornbeam habitat for example *Carpinus betulus, Anemone nemerosa, Ficaria verna, Gagea lutea.* Alien plan species were mostly typical for seminantural and synantropical vegetation. It was recognized plant species which belong mostly to *Molinio-Arrhenatheretea, Artemisietea vulgaris, Stellarietea mediae, Epilobietea angustifolii* and forest vegetation represented by *Vaccinio-Piceetea* class.

The aesthetics values of manor parks are very connected with dynamic of existing vegetation. These manor parks were established on oak-hornbeam forest habitats. The results is that vegetation is very attractiveness in all period of the year. Geophytes with beautiful blooming flowers are started growing in early spring time, when trees are still without leaves. During this time white, yellow, purple color of flowers are dominated in herb layer. Hemicryptophytes are growing in summer and autumn time. They are also characterized by diversified form of plants and color. Moreover many of alien tree species which are on studied objects are very decorative, too.

Currently oak-hornbeam forests occupy small areas in our country. Therefore, the nature and aesthetic values of these objects are not only of local but also for the whole country. It was observed many valuable plant species which are called ancient species in urban forest, forests an also in manor parks [SUPUKA, FERIANCOVÁ 2008, FORNAL-PIENIAK, WYSOCKI CZ. [2009C], JAFARI, ZARRE, ALAVIPANAH, 2013, SUPUKA J. AND ALL. 2013., FORNAL-PIENIAK, LIIRA, KERTU ET AL. 2012, LÕHMUS AND LIIRA 2013, OLLIK, ZARAŚ-JANUSZKIEWICZ, ŻARSKA, 2014]. Most of these species have been classified as ancient forest species in Europe [Peterken and Game, 1984].

Vegetation of studied parks are diversified, It was observed typical plant species for oak-hornbeam forest, but also larger group of plant species which are characterized for areas with human impacts. Most are parks are characterized by medium anthropogenic vegetation [50% of the objects] in Sandomierska Basin, too. They distinguished as objects of vegetation very transformed as a result of many years of human activity. It found a high rate of conversion of vegetation [20% of the objects], medium [50% of the objects] and low [30% of the objects] in the others manor parks in Sandomierska Basin. [FORNAL-PIENIAK, 2011, FORNAL-PIENIAK B., WYSOCKI CZ., 2009]. These objects are also a collection of alien species,

because the owners of mansions and parks also planted species habitat inconsistent with dry ground. In this respect, manor parks act as "mini arboretums" [FORNAL-PIENIAK2013, FORNAL-PIENIAK, OLLIK 2013].

SUMMARY

1. All manor parks are valuable because of its natural values.
2. Aesthetic values of parks are mostly connected with diversified plant species in each piriod of year.

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