Advanced Engineering Days

aed.mersin.edu.tr

Geobotanical and comparative data on vegetation in selected areas of central Albania, Elbasan region

Selma Myslihaka[1]

[1] *Faculty of Natural Sciences, University "A. Xhuvani", Elbasan, Albania,* selma.myslihaka@yahoo.com

Cite this study: Myslihaka, S. (2023). Geobotanical and comparative data on vegetation in selected areas of central Albania, Elbasan region. Advanced Engineering Days, 6, 204-206

Keywords
Conservation
Vegetation
Floristic element
Biological forms
Habitats

Abstract

At the current circumstances phytocenosis – agroecosystems and geobotanical approaches has been more difficult to avoid the transformation associated with the growth of global anthropogenic pressure. Concurrently, anthropogenic factors affect all parts of ecosystems, causing changes in the living component of nature. The study of the real state of ecosystems, their changes and stability under the load of anthropogenic factors is impossible without a comprehensive, in-depth study of them. In this contribution are presented vegetation data of the region of Elbasan, central Albania following comparative features from the systematic spectrum, biological forms and floristic element. It is worth to mention that survey area and associated vegetation is of particular interest due to its location and influences by the multifaceted Mediterranean-Atlantic climate with the continental one which enables this region to have rich biodiversity values and particular floristic composition. This survey is dedicated the region of Elbasan and covers three areas: Byshek, Xibraka-Shkumbini Valley and Elbasan. Based on geographical location and field expeditions there are identified and compared well-developed plant species, which are spontaneously growing, as well as plants that are rare and grow in limited areas in different climates and microclimates. Following the identified plant lists, systematic spectra and the percentage occupied by each family are constructed. The floristic diversity of this region is of scientific, economic and medical importance as the collection of plants provides a significant amount of raw materials for export, the pharmaceutical and chemical industries, making a valuable contribution to the country. Compliance with the requirements of environmental management, environmental protection and optimization of management of landscapes is becoming one of the main conditions for increasing ecosystems and associated species and habitats conservation.

Introduction

The city of Elbasan is characterized by 35 species of plants. The vegetation is mainly rich in Mediterranean deciduous shrubs [1] such as: Erica arborea L., Myrtus communis L., Arbutus unedo L., Juniperus oxycedrus L., Rosa canina L., Olea europea L. Also present are the plant associations of the families Leguminosae, Graminaceae, Labiatae etc.. Shelcan is a village in the Municipality of Shushica in the district of Elbasan in Albania. This village is located in the north of the city of Elbasan. Dominated by plants of the families: Rosaceae, Poaceae, Asteraceae, Fabaceae. The Shkumbin River originates in the Valamara Mountain [2]. Given the consistency of the relief and climatic conditions is characterized by 90 species. Plants of the families Rosaceae, Poaceae, Labiatae, Fabaceae, Urticaceae, etc. predominate. Letan is a village in Bradashesh Commune in Elbasan District. It lies southwest of Elbasan. Dominated by plants of the families: Leguminosae, Poaceae, Rosaceae, Plataginaceae.

Materials and methods

The study was conducted working according to a methodology divided into three phases: (i) Preparatory phase (preparatory work); (ii) Fieldwork phase (outdoor data collection); (iii) Laboratory work phase (data processing in the laboratory) [3, 4].

This study was divided into several stages: (i) Conducting field surveys; (ii) Estimation of quantity and coverage of species and (iii) Determination of species found in the territory taken for analysis.

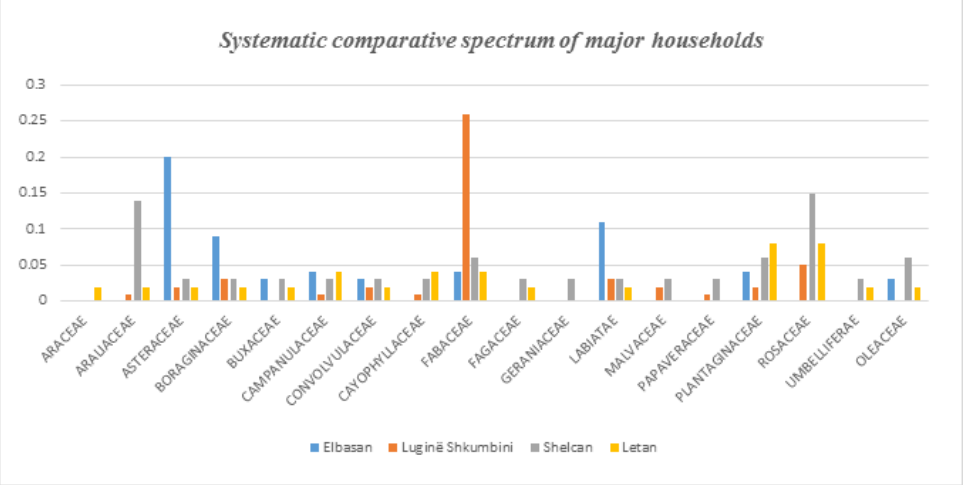

Figure 1. Comparative graph of systematic spectra

Results and discussions

Our study relied on the main habitat of forest flora and Mediterranean shrubs in these four vegetation areas. This habitat represents a variety of species in the floristic composition [5, 6]. The physiognomy of the Mediterranean forest is almost approximately the same throughout the territory. Other elements are Mediterranean and sub-Mediterranean shrubs such as Paliurus aculeatus, thana (*Cornus mass*), blackberry (*Rubus ulmifolius*) and a number of lianas such as: hard mulberry (*Smilax aspera)*, Heartburn (*Hedera helix*), larch (*Vitis silvestris*). The flora of forest herbaceous plants is the same, rare (Naqellari P. 2000) and most of its species belong to the ecological species xeroph. In addition to the phanerogamic flora, we also have low cryptogamous vegetation such as: lichen (*Lichene*) on trunks and stones; briophytes (*Briophyta*) in soil, hardwoods or rocks, hardwoods or stones; ferns (*Pteridophyta*); mushrooms (*Mycophyta*) etc.

Referring to the data of the comparative Figure 1, we notice that the vegetation is similar and that most of the families of these three areas are presented in approximate values.

Floristic flora spectra by areas under study.

In the region of Elbasan the dominant floristic elements are: Euro-Mediterranean, Central-European, Paleotempered, Eurasian.

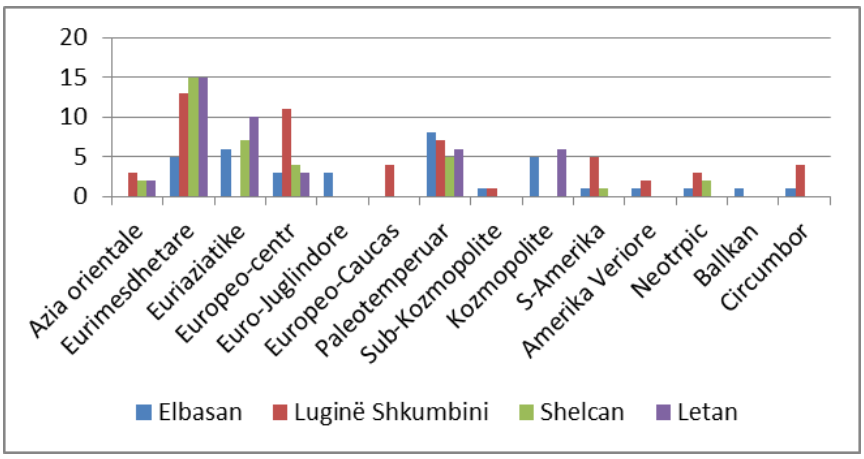

Figure 2. Comparative graph of floristic spectrum

Based on the graphic data of the comparative floristic spectrum (Figure 2) we find that the vegetation is similar to the Mediterranean character, while according to the comparative Figure 3, the biological forms of the vegetation of these areas are generally similar mainly of the Hemicryptophyte type.

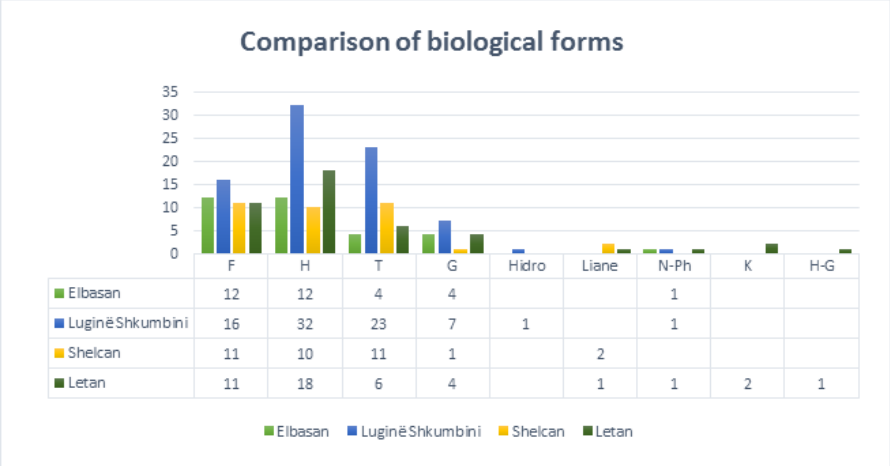

Figure 3. Comparative graph of biological forms

Formation *Carpinus orientalis: T*his formation lies at an altitude of 300-700 meters above sea level and is widespread in Shelcan. These plants have encountered alkaloids in this association: *Helleborus odorus* Waldstet Kit., *Achillea millefolium* L., etc.

Table 1. Spectrum of life forms: H=75 %; Th=5, 5 %; Ch=7,1%; G=2,4%

No.	Life forms	**The scientific name of the plant**	**Associations:** Carpinus Orientalis-Fraxinus ornus
22	Th	*Capsella bursa-pastoris* (L.) Med.	1.1 I
23	G	*Colchicum autumnale* L.	1.1 I
24	H	*Aristolochia clematitis* L.	1.1 I
25	H	*Viola odorata* L.	1.1 I
27	Ch	*Cichorim intybus* L.	1.1 I
28	H	*Convolvulus arvensis* L.	1.1 I

Conclusion

At the end of this study we reached some conclusions. We are practically familiar with the growing habitat of these plants and depending on the distribution according to the average relief height of 422m above sea level.

During the study it was observed that: The vegetation belonged mainly to the plant floor of the Mediterranean forest and shrub area; The most common families are: Fabaceae, Poaceae, Asteraceae dhe Labiatae; In terms of floristic element, the following species dominate: Euro-Mediterranean, Euro-Central, Euro-Southeast and Eurasian; The most common biological forms are: Hemicryptophytes, Phanerophytes, Therophytes and aquatic.

References

1. Mersinllari, M., & Naqellari, P. (2006). The practice of botany and the methodology of plant determination (Phanerogams). Tirana, 167
2. Kabo, M. (1998). Physical Geography of Albania, AAS, 2, 675
3. Xhulaj, M. (2005). Guide to teaching practices in botany. Tirana.
4. Annonymous, (2000). Flora of Albania, vol.1, 2, 3, 4. Tirana.,
5. Demiri, M. (1983). Excursionist flora of Albania. Tirana, 420.
6. Naqellari, P. (2000). Biodiversity, rare and endemic plants in the region. Together for a cleaner environment. Elbasan, Proceedings, 34-41

.