

**Data about butterflies (Ord. Lepidoptera, S.ord.
Rhopalocera) of Zlaști Valley
(Poiana Ruscă Mountains, Romania)**

Silvia BURNAZ

Rezumat

Date privind fluturii de zi (ord. Lepidoptera, S.ord. Rhopalocera) din Valea Zlaști (Munții Poiana Ruscă, România)

Zona calcaroasă a Văii Zlaști este situată în partea estică a Munților Poiana Ruscă (Carpații Occidentali, România). Râul Zlaști, afluent al râului Cerna, străbate calcare spectaculare, dolomitice, cu înălțimi cuprinse între 400-500 m. Valea, străjuită de formațiuni fitocenologice diverse, a fost puțin cercetată din punct de vedere lepidopterologic. Studiile sistematice privind fauna de lepidoptere diurne (Ord. Lepidoptera, Sord. Rhopalocera) s-au efectuat între anii 2004 - 2005.

Pe baza colectărilor s-au identificat în total 80 de specii. Lista sistematică a speciilor este însoțită de date privind sursa trofică a larvelor, adulților și cerințele ecologice față de habitat. Dintre speciile rare și locale se menționează *Neozephyrus quercus*, *Brintesia circe pannonica*, *Chazara briseis*, *Maculinea arion* și *Maculineaalcon*.

În lunile iulie-august ale anilor 2003 și 2004, caracterizate prin temperaturi de peste 28°C s-au evidențiat populații abundente ale speciilor *Satyrus dryas*, *Brintesia circe pannonica*, *Hipparchia fagi* și *Hipparchia semele*.

Key words: Macrolepidoptera, Zlaști Valley, Poiana Ruscă Mountains

Introduction

The lepidoptera fauna of the Poiana Ruscă Mountains remains still rather little known. On the one hand, a lot of interesting sites have not been researched by lepidopterists, on the other hand, only a small part of the existing species has been reported.

The limestone area of Zlaști Valley is situated in the eastern part of the Poiana Ruscă Mountains (Western Carpathians, Romania) (OANCEA ET AL., 1987). The affluent of Cerna, Zlaști river cross spectacular calcareous hills

reaching 400 m-500 m altitude. The carbonated rocks are generally represented by massive dolomites with a granular, fine texture and various colours: white-gray, gray, gray-purple and black. A series of quarries were opened for the exploitation of these rocks on the Zlaști Valley (SAVUL 1959).

This area is less known from a lepidopterological point of view. Only FOTESCU (1972) published a short checklist of the species. BURNAZ SILVIA & MARCELA BALAZS (2002) published a checklist of the vascular plants and butterflies of Runcu and Govăjdie Basin.

For collecting Lepidoptera species various habitats were researched: deciduous mixed forests, especially beech forests (As. *Carpino-Fagetum silvaticae*), forest edges and shrubs (As. *Coryletum avellanae* Soó 1927 and As. *Pruno spinosae-Crataegetum monogynae* (Soó 1927) HUECK 1931), grasslands (As. *Agrostio tenuis-Festucetum rupicolae* CSÜROS-KAPTALAN (1962) 1964, As. *Medicagini-Festucetum valesiacae* WAGNER 1940, *Festuco rubrae-Agrostetum tenuis* CSÜROS-KAPTALAN 1964). On the hillocks of Zlaști area, the principal phytocoenose is represented by As. *Thymo comosi-Festucetum rupicolae* (CSÜROS & GERGELY 1959) POP ET HODIȘAN 1985, a xerothermophilous association.

As. *Aegopodio-Alnetum glutinosae* KÁRPÁTI & JURKO 1961, As. *Alnetum incanae* (BORCKMAN 1907) AICHINGER ET SIEGRIST 1930 and As. *Salici capreae-Sambucetum racemosae* Soó 1960 are the principal associations which build up the riparian forests (SANDA et al. 1993).

Material and Methods

By the help of the entomological net we collected butterflies in some principal natural habitats of the zone. In the same time we observed the flowery plants which represent the trophic niche of the adults of the Rhopalocera species.

We identified the species after SPULER (1910), BERGMANN (1952), NICULESCU (1961, 1963, 1965), STILL (1996), CHINERY (1996), FELTWELL (2001).

Results and Discussion

The various habitats with different phytocoenoses and climate offer favourable conditions for lepidoptera fauna, especially for butterflies.

Our researches were carried out, especially in the superior part of Zlaști Valley which is less disturbed by the antropic activities. The species were collected especially in grasslands (hayfields and pastures), valley of the rivers and the edge of the forests.

As a result of our studies, a number of 80 species of Rhopalocera were recorded from the studied site.

The distribution of the Rhopalocera species from the Zlaști Valley is shown in Table 2.

Data about the larval host plants, nectar sources of the adults and ecological exigencies are presented. For each reported species, the plant flowers - nectar sources we have observed in this area.

The checklist of the species is according SZÉKELY (1999), RÁKOSY (2002) and FELTWELL (2001) classification of Rhopalocera (Tab. 2).

The majority of species, collected in this area, are Nymphalidae (45 species – representing 56,25 % of total recorded species) followed by Lycaenidae (19 species – representing 23,75% of total recorded species) (Tab. 1).

Tab. 1.

The repartition of the species on the families of Macrolepidoptera (S. ord. Rhopalocera)

Family	Number of species
Hesperiidae	7
Papilionidae	2
Pieridae	7
Lycaenidae	19
Nymphalidae	45
Total	78

The preferred habitats of the species are the grasslands, the edge of the forest and the damp habitats situated along the streams and rivers, characterised by a high diversity of plants. Residents who remain in the immediate area where the larvae are developed represent the majority of the species. They rest their entire life in the habitats in which they emerge as adults. Other species are migrants like *Vanessa cardui* and *Vanessa atalanta*.

Concerning the ecological exigencies of the species, our study pointed out the predominance of the mesophylous species followed by mesohygrophyllous and mesothermophyllous species. Mesophylous species from shrubs and grasslands are: *Clossiana dia*, *Coenonympha pamphilus*, *Erynnis tages*, *Hesperia comma*, *Lycaena phlaeas*, *Maniola jurtina*, *Melitaea athalia*, *Melitaea didyma*, *Ochlodes venatus faunus*, *Pyrgus malvae*, *Issoria lathonia*, *Lepitidea sinapis*, etc.

Xerothermophyllous species are *Neozephyrus quercus*, *Scoliantides orion*, *Polyommatus daphnis*, *Pironia tithonus*, *Brinthesia circe pannonica*. Hygrophyllous and thyrophylous species are *Thersamolycaena dispar rutila* and *Everes argiades*.

Some species are ubicviste: *Colias crocea*, *Cynthia cardui*, *Pieris rapae*, *Vanessa atalanta*.

The analysis of the larval food points out that all the butterfly's species feed on plants in their larval stage.

The larvae of the identified butterflies feed, according to literature data, on at least 12 plant families. Of great importance are Poaceae followed by

Fabaceae and Brassicaceae.

Few species are very broad in their host choice (polygophagous), but most are specific, feeding on only a plant species (monophagous) or different species of a family (oligophagous).

The monophagous species are *Neptis sappho aceris-Latyrus vernus*, *Brenthis daphne-Filipendula ulmaria*, *Satyrium spini-Rhamnus catharticus* and *Neozephyrus quercus-Quercus cerris*. They are often limited to particular habitats and form local colonies where their host plants occur.

Oligophagous, more flexible and less restricted by habitat, are the majority of the species.

Monocotyledonata plants as Poaceae are the host plants for some Hesperidae and all Satyrinae (Nymphalidae).

The Pieridae and some Lycaenidae prefer Fabaceae and Brassicaceae.

Different species of Polygonaceae are the host plants of Lycaenidae as *Thersamolycaena dispar rutila*, *Lycaena phlaeas* and *Lycaena virgaureae*. *Apatura iris*, *Apatura ilia* and *Limenitis populi bucovinensis* are related to Salicaceae. Rosaceae are the preferred food of *Iphiclides podalirius* while *Gonepteryx rhamni meridionalis* is specialized on Rhamnaceae.

The polyphagous species as *Pyrgus malvae*, *Polygonia c-album*, *Melitaea cinxia*, *Melitaea athalia*, etc. exploit a variety of plants from this area.

The adult resources, especially the flowering plants (dycotyledonata) are studied.

Because of the high diversity of the plant associations, the butterflies exploit a great number of flowers to procure the nectar. 86 flowering plants-adult resources were noticed. The most visited plants are *Sambucus ebulus*, *S. racemosa*, *S. nigra*, *Telekia speciosa*, *Aster amellus*, *Inula hirta*, *Leucanthemum vulgare*, *Taraxacum officinale*, *Epilobium angustifolium*, *E. hirsutum*, *Eupatorium cannabinum*, *Cirsium arvense*, *Carduus nutans*, *Galium verum*, *Trifolium campestre*, *Lotus corniculatus*, *Hypericum perforatum*, *Linaria vulgaris*, *Filipendula ulmaria*, *Dianthus carthusianorum*, *Mentha longifolia*.

The Romanian fauna with 209 species of Rhopalocera is one of the richest of Europe.

38,28 % of the species recorded from Romania were found in this small area of Zlăști Valley (Poiana Ruscă Mountains). This situation is due to the favourable climate and vegetation as well as to the diversity of the habitats. Some of the species have abundant populations in all the habitats, as: *Erynnis tages*, *Pieris rapae*, *Pieris napi meridionalis*, *Lycaena virgaureae*, *Polyommatus icarus*, *Argynnis paphia*, *Clossiana dia*, *Clossiana euphrosyne*, *Clossiana selene*, *Melitaea cinxia*, *Melitaea athalia*, *Melitaea didyma*, *Coenonympha pamphilus*, *Coenonympha arcania*, *Maniola jurtina*, *Aphantopus hyperanthus*, *Melanargia galathea scolis*. Other species, especially the residents, were found only in the calcareous habitats: *Polyommatus daphnis* and *Polyommatus coridon*.

In the summer of 2004 - 2005, especially in Jun - July, a great number

of individuals of the species *Hipparchia semele*, *Hipparchia fagi*, *Minois dryas*, *Brinthesia circe pannonica* has been observed. The situation is due probably to the high values of the temperature in the spring and summer, which influenced the development of the vegetation, especially the flowering plants. In the same time, the preferred habitats of these species, the edge of the forests and the clearings occupy a large surface.

Other species, rare in the fauna of Romania are: *Charcarodus flocciferus*, *Neozephyrus quercus*, *Neozephyrus quercus* and *Maculineaalcon*, *Maculinea arion*.

The most important species we have collected in this area are:

Charcarodus flocciferus ZELLER, 1847

Flight period: Jun-August

Habitats: It prefers dry, flowery grasslands and scrubby areas of the lowlands and mountainous zone.

Adult nectar sources: Especially *Linum flavum*, *Lamium album*, *Origanum vulgare* and *Malva officinale*

Larval food: *Stachys* sp. and *Marrubium* sp.

Geographical distribution: Euroasiatic species.

Maculineaalcon (DENIS & SCHIFFERMÜLLER, 1775)

Flight period: Jun-July

Habitats: It prefers dry grasslands, edges, and sunny, flowery limestone hillsides.

Adult nectar sources: Especially *Teucrium chamaedrys*, *Thymus serpyllum*, *Aster amellus*, *Centaurea scabiosa*, *Cardamine pratensis* and *Arabis hirsuta*.

Larval food: *Gentiana pneumonanthe*, *Gentiana asclepiadea* in the early stages. The development of larvae is completed in the nests of *Myrmica* species.

Geographical distribution: Euroasiatic species

Maculinea arion (LINNAEUS, 1758)

Fly period: June-August

Habitats: Grasslands, sunny rocks

Ecological exigencies: Species strictly bound of grasslands with *Thymus serpyllum*, the larvae host plant.

Larval food: *Thymus serpyllum*. The development of larvae is completed in the nests of *Myrmica* species.

Adult nectar sources: *Filipendula ulmaria*, *Agrimonia eupatoria*, *Anthyllis vulneraria*, *Galega officinalis*, *Linum flavum*, *Galium purpureum*, *Anchusa officinalis*, *Onosma arenaria*, *Stachys recta* and *Potentilla reptans*.

Geographical distribution: Euroasiatic species

Neozephyrus quercus (LINNAEUS, 1758)

Fly period: July-August

Habitats: It occurs at the openings of the oak forests

Ecological exigencies: Mesothermophilous, xerothermophilous spe-

cies typical for oak forests

Adult food: *Sambucus racemosa*, *Sambucus ebulus* (fruits) and sticky honey-dew from aphids

Larval food: *Quercus* sp., rarely on *Fraxinus ornus*

Geographical distribution: Westpalearctic species

Chazara briseis (LINNAEUS, 1764)

Flight period: Jun – August

Habitats: The species prefers at the edges and openings in deciduous forests.

Adult nectar sources: *Sambucus racemosa*, *Sambucus ebulus* and *Scabiosa columbaria*

Larval food: Various grasses (Poaceae)

Geographical distribution: Palearctic species

Most of the species of butterflies, collected in the summer of 2004 – 2005, have preferred the edge of the forests and the vegetation developed across the valleys with a great variety of plants characteristic for humid habitats. Other preferred habitats are the flowering meadows and the stony rocks with xerothermophilous and thermophilous vegetation.

The analysis of the larval host plants shows that the majority of the species are Polyphagous species on Dicotyledonata. Some of them are oligophagous on Poaceae: Satyrinae and some of HesperIIDae species (*Cartocephalus palaemon*, *Hesperia comma*, *Ochlodes venatus faunus*). *Vanessa atalanta*, *Inachis io*, *Araschnia levana* select Urticaceae; *Clossiana dia*, *Clossiana selene*, *Clossiana euphrosyne* prefer Violaceae. Brassicaceae are host plants for *Anthocharis cardamines meridionalis*, *Leptidea sinapis*, *Pieris napi meridionalis*, *Pieris rapae*, *Pieris brassicae*. *Colias hyale*, *Colias crocea* prefer Fabaceae. The species of *Primula* are the host plants of *Hamearis lucina*. Polygonaceae are preferred by *Lycaena dispar rutila* and *Lycaena phlaeas*. *Gonepteryx rhamni meridionalis* is oligophagous on Rhamnaceae.

Monophagous species are: *Satyrium spini* - *Rhamnus catharticus*, *Brenthis hecate* - *Filipendula ulmaria* and *Neozephyrus quercus* - *Quercus cerris*.

A distribution of the feeding plants in plant formations shows the importance of grassland communities for the butterflies fauna.

Flower-visiting insects, including butterflies, play an important ecological role in natural and agricultural landscapes. This behaviour depends of external factors like flowering density, plant diversity, climatic conditions, habitat isolation and landscape complexity (HIRSCH MICHAELA & WOLTERS 2003). Adults visit different flowering plants for nectar.

The bivoltine and trivoltine species utilise a succession of nectar plants throughout the year. For example, the first generation of *Colias hyale* prefers *Taraxacum officinale*, *Cardamine pratensis*, *Crataegus monogyna*, *Fragaria vesca*, *Lamium album*, etc. The second generation prefers different species of Asteraceae, Fabaceae, etc. *Pieris rapae rapae* and *Pieris napi meridionalis* visit an extremely wide variety of flowering plants, in each season. In the sum-

Tab. 2.
Systematic list of the Lepidoptera species (S.ord. Rhopalocera) recorded from the calcareous zone of Zlaști Valley
(Poiana Ruscă Mts.)

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
HESPERIIDAE			
<i>Carcharodus flocciferus</i> (ZELLER, 1847)	Marrubium sp., Stachys sp.	Linum flavum, Lamium album, Origanum vulgare, Malva officinale	Mt
<i>Erynnis tages</i> (LINNAEUS, 1758)	Fabaceae	Agrimonia eupatoria, Medicago lupulina, Melilotus officinalis, Trifolium campestre, Hypericum perforatum, Linaria vulgaris, Rorippa sylvestris, Bunias orientalis, Hesperis tristis, Cardamine pratensis, Cardaminopsis arenosa, Arabis turrita, Alyssum petraeum, Dianthus carthusianorum, Leucanthemum vulgare	M
<i>Pyrgus malvae</i> (LINNAEUS, 1758)	Polyphag (Dicotyledo- nata)	Salvia nemorosa, Leucanthemum vulgare, Hypericum perforatum, Senecio vulgaris, Galium verum, Solidago virgaurea, Potentilla reptans, Silene vulgaris, Cardamine pratensis, Hesperis tristis, Cardaminopsis arenosa, Alyssum alyssoides, Fragaria vesca	M
<i>Pyrgus fritillarius</i> (PODA, 1761)	Potentilla sp., Althaea sp., Malva sp.	Trifolium pratense, Trifolium campestre, Leucanthemum vulgare, Hieracium pilosella, Agrimonia eupatoria, Medicago lupulina, Anthyllis vulneraria, Galega officinalis, Linum flavum, Solidago virgaurea	M
<i>Carterocephalus palaemon</i> (PALLAS, 1771)	Poaceae	Medicago sativa, Origanum vulgare, Cichorium intybus, Filipendula ulmaria, Silene vulgaris, Urtica dioica, Potentilla recta, Medicago lupulina, Aster amellus, Erigeron canadensis, Lamium album, Genista tinctoria	M

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Hesperia comma</i> (LINNAEUS, 1758)	Poaceae	<i>Leucanthemum vulgare</i> , <i>Galium verum</i> , <i>Origanum vulgare</i> , <i>Thymus serpyllum</i> , <i>Thymus comosus</i> , <i>Viola tricolor</i> , <i>Erysimum odoratum</i> , <i>Epilobium hirsutum</i> , <i>Geranium robertianum</i> , <i>Erigeron canadensis</i> , <i>Rorippa silvestris</i> , <i>Alyssum petraeum</i> , <i>Arabis turrita</i> , <i>Cardaminopsis arenosa</i> , <i>Thlaspi arvense</i> , <i>Silene album</i> , <i>Aster amellus</i> , <i>Inula coniza</i> , <i>Scabiosa ochroleuca</i>	M
<i>Ochlodes venatus faunus</i> (TURATI, 1905)	Poaceae	<i>Solidago virgaurea</i> , <i>Origanum vulgare</i> , <i>Thymus serpyllum</i> , <i>Dianthus carthusianorum</i> , <i>Genista tinctoria</i> , <i>Lotus corniculatus</i> , <i>Cytisus nigricans</i> , <i>Galium verum</i> , <i>Teucrium chamaedrys</i> , <i>Linum flavum</i> , <i>Lysimachia vulgaris</i> , <i>Leucanthemum vulgare</i>	M
PAPILIONIDAE			
<i>Papilio machaon</i> (LINNAEUS, 1758)	Umbelliferae	<i>Cirsium canum</i> , <i>Carduus acanthoides</i> , <i>Telekia speciosa</i> , <i>Mentha longifolia</i> , <i>Leucanthemum vulgare</i> , <i>Pulmonaria officinalis</i> , <i>Lamium purpureum</i> , <i>Verbascum thapsus</i> , <i>Agrimonia eupatoria</i> , <i>Dipsacus fullonum</i> , <i>Epilobium hirsutum</i> , <i>Sambucus racemosa</i> , <i>Sambucus ebulus</i> , <i>Sambucus nigra</i> , <i>Aster amellus</i> , <i>Crataegus monogyna</i> , <i>Prunus spinosa</i> , <i>Berberis vulgaris</i> , <i>Rubus caesius</i> , <i>Rubus fruticosus</i> , <i>Dianthus carthusianorum</i>	Mt, Mxt
<i>Iphiclydes podalirius</i> (SCOPOLI, 1763)	Rosaceae	<i>Dianthus carthusianorum</i> , <i>Telekia speciosa</i> , <i>Hieracium pilosella</i> , <i>Mentha longifolia</i> , <i>Thymus serpyllum</i> , <i>Aster amellus</i> , <i>Dipsacus fullonum</i> , <i>Cytisus nigricans</i> , <i>Tanacetum vulgare</i> , <i>Sambucus racemosa</i> , <i>Sambucus nigra</i> , <i>Rubus fruticosus</i> , <i>Berberis vulgaris</i> , <i>Prunus spinosa</i> , <i>Crataegus monogyna</i> , <i>Inula hirta</i> , <i>Hypericum perforatum</i> , <i>Epilobium hirsutum</i> , <i>Verbascum phlomoides</i> , <i>Hypochoeris uniflora</i> , <i>Sonchus arvensis</i>	M
PIERIDAE			

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Leptidea sinapis</i> (LINNAEUS, 1758)	Brassicaceae	<i>Silene vulgaris</i> , <i>Senecio nemorensis</i> , <i>Salvia pratensis</i> , <i>Lotus corniculatus</i> , <i>Fragaria vesca</i> , <i>Bunias orientalis</i> , <i>Rorippa sylvestris</i> , <i>Erysimum odoratum</i> , <i>Stachys sylvatica</i> , <i>Solidago virgaurea</i> , <i>Lathyrus vernus</i> , <i>Valeriana officinalis</i> , <i>Trifolium pratense</i> , <i>Aster amellus</i> , <i>Centaurea scabiosa</i> , <i>Filipendula vulgaris</i> , <i>Thymus serpyllum</i> , <i>Senecio jacobaea</i> , <i>Ranunculus repens</i> , <i>Cytisus nigricans</i> , <i>Tanacetum vulgare</i>	M
<i>Pieris brassicae brassicae</i> (LINNAEUS, 1758)	Brassicaceae	<i>Dipsacus fullonum</i> , <i>Carduus candicans</i> , <i>Galium verum</i> , <i>Teledkia speciosa</i> , <i>Leucanthemum vulgare</i> , <i>Linum hirsutum</i> , <i>Sambucus ebulus</i> , <i>Epilobium angustifolium</i> , <i>Fragaria vesca</i> , <i>Inula hirta</i> , <i>Ranunculus repens</i> , <i>Valeriana officinalis</i> , <i>Cardaminopsis arenosa</i> , <i>Arabis glabra</i> , <i>Thlaspi arvense</i> , <i>Aster amellus</i> , <i>Agrimonia eupatoria</i>	M
<i>Pieris rapae rapae</i> (LINNAEUS, 1758)	Brassicaceae	<i>Saponaria officinalis</i> , <i>Silene vulgaris</i> , <i>Origanum vulgare</i> , <i>Impatiens noli-tangere</i> , <i>Stachys sylvatica</i> , <i>Hieracium pilosella</i> , <i>Teledkia speciosa</i> , <i>Mentha aquatica</i> , <i>Aster amellus</i> , <i>Potentilla recta</i> , <i>Lotus corniculatus</i> , <i>Scabiosa ochroleuca</i> , <i>Geranium robertianum</i> , <i>Erigeron canadensis</i> , <i>Cardamine pratensis</i> , <i>Cardaminopsis arenosa</i> , <i>Erysimum odoratum</i> , <i>Taraxacum officinale</i> , <i>Linum hirsutum</i> , <i>Ranunculus repens</i> , <i>Ranunculus acris</i> , <i>Sambucus racemosa</i> , <i>Mentha longifolia</i> , <i>Eupatorium cannabinum</i> , <i>Verbascum phlomoides</i>	Eu
<i>Pieris napi meridionalis</i> (HEYNE, 1895)	Brassicaceae	<i>Cirsium arvense</i> , <i>Cardamine pratensis</i> , <i>Hippocrepis comosa</i> , <i>Lotus corniculatus</i> , <i>Trifolium arvense</i> , <i>Lathyrus vernus</i> , <i>Lysimachia vulgaris</i> , <i>Hieracium pilosella</i> , <i>Hesperis tristis</i> , <i>Centaurea cyanus</i> , <i>Sambucus ebulus</i> , <i>Eupatorium cannabinum</i> , <i>Erysimum odoratum</i> , <i>Sysimbrium officinale</i> , <i>Taraxacum officinale</i>	Eu

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Colias hyale hyale</i> (LINNAEUS, 1758)	Fabaceae	Rosa canina, Sambucus racemosa, Sambucus ebulus, Euphorbia cyparissias, Galium silvaticum, Centaurea cyanus, Leucanthemum vulgare, Dianthus carthusianorum, Solidago virgaurea, Aster amellus, Verbascum phlomoides, Urtica dioica, Lamium purpureum, Taraxacum officinale, Hypericum perforatum, Cardamine pratensis, Fragaria vesca, Crataegus monogyna	M
<i>Colias crocea crocea</i> (GEOFFROY IN FOURCROY, 1785)	Fabaceae	Campanula persicifolia, Thymus serpyllum, Mentha longifolia, M. aquatica, Dianthus carthusianorum, Galium verum, Solidago virgaurea, Taraxacum officinale, Prunella vulgaris, Trifolium pratense	Mt
<i>Gonepteryx rhamni meridionalis</i> (ROBER, 1909)	Rhamnaceae	Carduus nutans, Origanum vulgare, Impatiens noli-tangere, Solidago virgaurea, Aster amellus, Verbascum phlomoides, Sysimbrium officinale, Erysimum odoratum, Rosa canina	Eu
LYCAENIDAE			
<i>Hamearis lucina</i> (LINNAEUS, 1758)	Primula sp.	Viola tricolor, Taraxacum officinale, Fragaria vesca, Galium verum, Genista tinctoria, Erysimum odoratum, Cardaminopsis arenosa, Hesperis tristic, Arabis Ranunculus acris	M
<i>Lycaena phlaeas</i> (LINNAEUS, 1761)	Polygonaceae	Salvia pratensis, Scabiosa ochroleuca, Lamium purpureum, Mentha aquatica, Aster amellus, Leucanthemum vulgare, Hypericum perforatum, Knautia arvensis	M
<i>Thersamolycaena dispar rutila</i> (WERNERBURG, 1864)	Polygonaceae	Epilobium montanum, Eupatorium cannabinum, Telekia speciosa, Mentha longifolia, Mentha aquatica, Sambucus ebulus, Arabis hirsuta	Tf

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Lycaena virgaureae</i> (LINNAEUS, 1758)	Polygonaceae	<i>Leucanthemum vulgare</i> , <i>Eupatorium cannabinum</i> , <i>Epilobium angustifolium</i> , <i>Epilobium hirsutum</i> , <i>Mentha aquatica</i> , <i>Mentha longifolia</i> , <i>Inula hirta</i> , <i>Thymus serpyllum</i> , <i>Melampyrum nemorosum</i> , <i>Lamium purpureum</i> , <i>Aster amellus</i> , <i>Galium mollugo</i> , <i>Prunella vulgaris</i> , <i>Sambucus racemosa</i>	Mh
<i>Neozephyrus quercus</i> (LINNAEUS, 1758)	<i>Quercus cerris</i> Myrmecophil	<i>Sambucus racemosa</i> , <i>Sambucus nigra</i>	Xt
<i>Callophrys rubi virgatus</i> (VERITY, 1913)	Fabaceae	<i>Linum hirsutum</i> , <i>Solidago virgaurea</i> , <i>Teucrium chamaedrys</i> , <i>Stachys recta</i> , <i>Salvia nemorosa</i> , <i>Veronica chamaedrys</i> , <i>Taraxacum officinale</i> , <i>Centaurea scabiosa</i> , <i>Inula helenium</i>	Mt
<i>Satyrion spini</i> (DENIS & SCHIFFERMÜLLER, 1775)	<i>Rhamnus catharticus</i> Myrmecophil	<i>Sambucus ebulus</i>	Xt
<i>Cupido minimus</i> (FUESSLY, 1775)	Fabaceae; Myrmecophil	<i>Trifolium pratense</i> , <i>T. repens</i> , <i>Hieracium pilosella</i> , <i>Urtica dioica</i> , <i>Galega officinalis</i> , <i>Lotus corniculatus</i> , <i>Medicago lupulina</i> , <i>Genista tinctoria</i> , <i>Alyssum petraeum</i> , <i>Centaurea scabiosa</i> , <i>Veronica chamaedrys</i>	Mt
<i>Celastrina argiolus</i> (LINNAEUS, 1758)	Polyphagous (Dicotyledonata) Myrmecophil	<i>Genista tinctoria</i> , <i>Lotus corniculatus</i> , <i>Medicago sativa</i> , <i>Viola tricolor</i> , <i>Urtica dioica</i> , <i>Thymus serpyllum</i> , <i>Trifolium pratense</i> , <i>Trifolium repens</i> , <i>Veronica officinalis</i>	M
<i>Scoliantides orion</i> (PALLAS, 1771)	<i>Sedum</i> sp. Myrmecophil	<i>Hieracium pilosella</i> , <i>Minuartia verna</i> , <i>Helianthemum canum</i> , <i>Sedum hispanicum</i> , <i>Inula hirta</i> , <i>Senecio jacobaea</i> , <i>Tanacetum vulgare</i>	Xt
<i>Glaucopsyche alexis</i> (PODA, 1761)	Fabaceae Myrmecophil	<i>Lotus corniculatus</i> , <i>Trifolium repens</i> , <i>Anthyllis vulneraria</i>	M

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Maculinea arion</i> (LINNAEUS, 1758)	Thymus sp. Myrmecophil	<i>Filipendula ulmaria</i> , <i>Agrimonia eupatoria</i> , <i>Anthyllis vulneraria</i> , <i>Galega officinalis</i> , <i>Linum flavum</i> , <i>Galium purpureum</i> , <i>Anchusa officinalis</i> , <i>Onosma arenaria</i> , <i>Stachys recta</i> , <i>Potentilla reptans</i> , <i>Mentha longifolia</i>	Mht
<i>Maculinea alcon</i> (DENIS & SCHIFFERMÜLLER, 1775)	Gentiana pneumonanthe, <i>G. asclepiadea</i> ; Myrmecophil	<i>Teucrium chamaedrys</i> , <i>Thymus serpyllum</i> , <i>Aster amellus</i> , <i>Centaurea scabiosa</i> , <i>Cardamine pratensis</i> , <i>Arabis hirsuta</i>	Mh
<i>Plebejus argus</i> (LINNAEUS, 1758)	Fabaceae; Myrmecophil	<i>Lotus corniculatus</i> , <i>Potentilla recta</i> , <i>Viola tricolor</i> , <i>Medicago lupulina</i> , <i>Mentha aquatica</i>	M
<i>Cyaniris semiargus</i> (ROTEMBURG, 1775)	Fabaceae; Myrmecophil	<i>Trifolium repens</i> , <i>Potentilla recta</i> , <i>Vicia cracca</i> , <i>Inula helenium</i> , <i>Alyssum alyssoides</i> , <i>Synapis arvensis</i>	M
<i>Polyommatus icarus</i> (ROTEMBURG, 1775)	Fabaceae; Myrmecophil	<i>Genista tinctoria</i> , <i>Lotus corniculatus</i> , <i>Aster amellus</i> , <i>Viola tricolor</i> , <i>Potentilla recta</i> , <i>Leucanthemum vulgare</i> , <i>Tanacetum vulgare</i>	M
<i>Polyommatus daphnis</i> (DENIS & SCHIFFERMÜLLER, 1775)	Fabaceae; Myrmecophil	<i>Leucanthemum vulgare</i> , <i>Dianthus carthusianorum</i> , <i>Hieracium pilosella</i> , <i>Inula conyza</i> , <i>Aster amellus</i>	Xt
<i>Polyommatus bellargus</i> (ROTEMBURG, 1775)	Hippocrepis comosa; Myrmecophil	<i>Leucanthemum vulgare</i> , <i>Geranium pratense</i> , <i>Hypericum perforatum</i> , <i>Galium mollugo</i> , <i>Galium verum</i> , <i>Anchusa officinalis</i> , <i>Bunias orientalis</i> , <i>Rorippa sylvestris</i> , <i>Ranunculus acris</i> , <i>Hesperis silvestris</i> , <i>Teucrium chamaedrys</i> , <i>Lamium purpureum</i>	Xt
<i>Polyommatus coridon</i> (PODA, 1761)	Fabaceae; Myrmecophil	<i>Dianthus carthusianorum</i> , <i>Aster amellus</i> , <i>Scabiosa ochroleuca</i> , <i>Medicago sativa</i> , <i>Tanacetum vulgare</i>	Xt

NYMPHALIDAE

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Argynnis paphia</i> (LINNAEUS, 1758)	Violaceae	<i>Dipsacus fullonum</i> , <i>Cirsium arvense</i> , <i>Carduus candicans</i> , <i>Telekia speciosa</i> , <i>Galium verum</i> , <i>Leucanthemum vulgare</i> , <i>Aster amellus</i> , <i>Mentha aquatica</i> , <i>Epilobium angustifolium</i>	M
<i>Speyeria aglaja</i> (LINNAEUS, 1758)	Violaceae	<i>Senecio nemorensis</i> , <i>Solidago virgaurea</i> , <i>Origanum vulgare</i> , <i>Leucanthemum vulgare</i> , <i>Aster amellus</i> , <i>Mentha aquatica</i> , <i>Scabiosa ochroleuca</i> , <i>Galium verum</i> , <i>Linum austriacum</i>	M
<i>Fabriciana adippe</i> (DENIS & SCHIFFERMÜLLER, 1775)	Violaceae	<i>Senecio nemorensis</i> , <i>Aster amellus</i> , <i>Sambucus ebulus</i> , <i>Leucanthemum vulgare</i> , <i>Epilobium montanum</i> , <i>Dianthus carthusianorum</i> , <i>Galium verum</i> , <i>Hypericum perforatum</i> , <i>Telekia speciosa</i>	Mt
<i>Fabriciana niobe</i> (LINNAEUS, 1758)	Violaceae	<i>Leucanthemum vulgare</i> , <i>Hieracium pilosella</i> , <i>Aster amellus</i> , <i>Cirsium arvense</i> , <i>Telekia speciosa</i> , <i>Hypericum perforatum</i> , <i>Erigeron canadensis</i>	M
<i>Issoria lathonia</i> (LINNAEUS, 1758)	Violaceae	<i>Leucanthemum vulgare</i> , <i>Aster amellus</i> , <i>Dianthus carthusianorum</i> , <i>Hypericum perforatum</i> , <i>Galium verum</i> , <i>Taraxacum officinale</i> , <i>Inula helenium</i> , <i>Epilobium hirsutum</i> , <i>Erigeron canadensis</i>	M
<i>Brenthis daphne</i> (DENIS & SCHIFFERMÜLLER, 1775)	Rosaceae: Rubus sp.	<i>Leucanthemum vulgare</i> , <i>Aster amellus</i> , <i>Verbascum phlomoides</i> , <i>V. thapsus</i> , <i>Digitalis grandiflora</i> , <i>Solidago virgaurea</i> , <i>Cardaminopsis arenosa</i> , <i>Arabis hirsuta</i> , <i>Inula helenium</i> , <i>Epilobium hirsutum</i> , <i>Geranium robertianum</i>	Xt
<i>Brenthis hecate</i> (DENIS & SCHIFFERMÜLLER, 1775)	Filipendula ulmaria	<i>Linum flavum</i> , <i>Hypericum perforatum</i> , <i>Leucanthemum vulgare</i> , <i>Aster amellus</i> , <i>Telekia speciosa</i> , <i>Galium verum</i> , <i>Filipendula ulmaria</i> , <i>Silene vulgaris</i>	M

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Clossiana euphrosyne</i> (LINNAEUS, 1758)	Violaceae	<i>Urtica dioica</i> , <i>Saponaria officinalis</i> , <i>Cardamine impatiens</i> , <i>Fragaria vesca</i> , <i>Filipendula ulmaria</i> , <i>Potentilla recta</i> , <i>Chamaecytisus leiocarpus</i> , <i>Medicago lupulina</i> , <i>Origanum vulgare</i> , <i>Arabis hirsuta</i> , <i>Alyssum petraeum</i> , <i>Trifolium campestre</i> , <i>Aster amellus</i> , <i>Melilotus officinalis</i> , <i>Lotus corniculatus</i> , <i>Linum flavum</i> , <i>Solidago virgaurea</i> , <i>Galium verum</i>	M
<i>Clossiana selene</i> (DENIS & SCHIFFERMÜLLER, 1775)	Violaceae	<i>Linaria vulgaris</i> , <i>Trifolium campestre</i> , <i>Inula helenium</i> , <i>Lotus corniculatus</i> , <i>Lamium album</i> , <i>Centaurea cyanus</i> , <i>C. scabiosa</i> , <i>Galium mollugo</i> , <i>Hypericum perforatum</i> , <i>Cardamine pratensis</i> , <i>Arabis hirsuta</i> , <i>Lychnis flos-cuculi</i> , <i>Anchusa officinalis</i> , <i>Myosotis arvensis</i>	M
<i>Clossiana dia</i> (LINNAEUS, 1767)	Violaceae	<i>Silene vulgaris</i> , <i>Veronica spicata</i> , <i>Filipendula ulmaria</i> , <i>Chamaecytisus leiocarpus</i> , <i>Hieracium pilosella</i> , <i>Arabis hirsuta</i> , <i>Trifolium campestre</i> , <i>Lotus corniculatus</i> , <i>Centaurea cyanus</i> , <i>Solidago virgaurea</i> , <i>Inula helenium</i> , <i>Senecio vernalis</i> , <i>Hieracium pilosella</i> , <i>Hypericum perforatum</i> , <i>Leucanthemum vulgare</i>	M
<i>Vanessa atalanta</i> (LINNAEUS, 1758)	Urticaceae	<i>Saps</i> flows on trees, fermenting fruits. Seldom visits flowers like <i>Carduus acanthoides</i> , <i>Cirsium nutans</i> , <i>Cirsium arvense</i> , <i>Telekia speciosa</i>	U, Mg
<i>Vanessa cardui</i> (LINNAEUS, 1758)	<i>Carduus candicans</i> , <i>Urtica dioica</i>	<i>Centaurea cyanus</i> , <i>Carduus nutans</i> , <i>Cirsium arvense</i> , <i>Leucanthemum vulgare</i> , <i>Telekia speciosa</i> , <i>Sambucus ebulum</i> , <i>Epilobium angustifolium</i> , <i>Epilobium montanum</i>	U, Mg
<i>Inachis io</i> (LINNAEUS, 1758)	Urticaceae	<i>Carduus nutans</i> , <i>C. candicans</i> , <i>Telekia speciosa</i> , <i>Berberis vulgaris</i> , <i>Sambucus ebulum</i> , <i>Sambucus racemosa</i> , <i>Galium verum</i> , <i>Leucanthemum vulgare</i>	M
<i>Aglais urticae</i> (LINNAEUS, 1758)	Urticaceae	<i>Leucanthemum vulgare</i> , <i>Carduus candicans</i> , <i>Cirsium arvense</i> , <i>Sambucus ebulum</i> , <i>Sambucus nigra</i> , <i>Telekia speciosa</i> , <i>Mentha longifolia</i> , <i>Hypericum perforatum</i> ,	M

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Polygonia c-album</i> (LINNAEUS, 1758)	Polyphagous (Dicotyledonata)	Saps flows on trees, <i>Telekia speciosa</i> , <i>Epilobium angustifolium</i>	M
<i>Araschnia levana</i> (LINNAEUS, 1758)	Urticaceae	<i>Epilobium angustifolium</i> , <i>E. hirsutum</i> , <i>Mentha aquatica</i> , <i>M. longifolia</i> , <i>Eupatorium cannabinum</i> , <i>Leucanthemum vulgare</i> , <i>Aster amellus</i> , <i>Telekia speciosa</i>	Mh
<i>Nymphalis polychloros</i> (LINNAEUS, 1758)	<i>Salix</i> sp., <i>Ulmus</i> sp., <i>Populus</i> sp.	Saps flows on trees, <i>Telekia speciosa</i> , <i>Epilobium angustifolium</i>	M
<i>Nymphalis antiopa</i> (LINNAEUS, 1758)	<i>Salix</i> sp., <i>Populus</i> sp., <i>Betula</i> sp., <i>Alnus</i> sp.	Saps flows on trees, <i>Telekia speciosa</i>	Mh
<i>Melitaea cinxia</i> (LINNAEUS, 1758)	Polyphagous (Dicotyledonata)	<i>Hieracium pilosella</i> , <i>Centaurea cyanus</i> , <i>Telekia speciosa</i> , <i>Dianthus carthusianorum</i> , <i>Origanum vulgare</i> , <i>Thymus serpyllum</i> , <i>Erigeron canadensis</i> , <i>Epilobium hirsutum</i> , <i>Geranium robertianum</i>	Mt
<i>Melitaea phoebe</i> (DENIS & SCHIFFERMÜLLER, 1775)	Polyphagous: <i>Centaurea jacea</i> , <i>Plantago</i> sp.	<i>Carduus nutans</i> , <i>Salvia pratensis</i> , <i>Eryngium campestre</i> , <i>Viola tricolor</i> , <i>Linaria vulgaris</i> , <i>Anchusa officinalis</i> , <i>Sambucus nigra</i> , <i>S. racemosa</i> , <i>Salvia pratensis</i> , <i>Pulmonaria officinalis</i> , <i>Achillea millefolium</i> , <i>Solidago virgaurea</i> , <i>Taraxacum officinale</i>	Mt
<i>Melitaea didyma</i> (ESPER, 1779)	Polyphagous (Dicotyledonata)	<i>Carduus nutans</i> , <i>Cirsium arvense</i> , <i>Origanum vulgare</i> , <i>Aster amellus</i> , <i>Scabiosa columbaria</i> , <i>Thymus serpyllum</i> , <i>Thymus comosus</i> , <i>Lotus corniculatus</i> , <i>Centaurea cyanus</i> , <i>Dianthus carthusianorum</i> , <i>Achillea millefolium</i> , <i>Chamaecytisus leioarpus</i> , <i>Medicago lupulina</i> , <i>Senecio vernalis</i> , <i>Hypericum perforatum</i> , <i>Erigeron canadensis</i> , <i>Scabiosa columbaria</i>	Mxt

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Melitaea athalia</i> (ROTTEMBURG, 1775)	Polyphagous (<i>Plantago</i> sp., <i>Hieracium</i> <i>pilosella</i> , <i>Centaurea nigra</i>)	<i>Taraxacum officinale</i> , <i>Tanacetum vulgare</i> , <i>Thymus serpyllum</i> , <i>Thymus comosus</i> , <i>Dianthus carthusianorum</i> , <i>Melilotus albus</i> , <i>Trifolium repens</i> , <i>T. pratense</i> , <i>Arabis hirsuta</i> , <i>Galium mollugo</i> , <i>Lamium album</i> , <i>Alyssum petraeum</i> , <i>Cardamine amara</i> , <i>Hesperis tristis</i> , <i>Potentilla recta</i> , <i>Genista tinctoria</i> , <i>Erigeron canadensis</i> , <i>Geranium robertianum</i> , <i>Sambucus nigra</i> , <i>Sambucus racemosa</i>	M
<i>Melitaea britomartis</i> ASSMANN, 1847	Polyphagous (<i>Dicotyledonata</i>)	<i>Lotus corniculatus</i> , <i>Origanum vulgare</i> , <i>Thymus serpyllum</i> , <i>Taraxacum officinale</i> , <i>Stachys recta</i> , <i>Melissa officinalis</i> , <i>Tanacetum vulgare</i>	Mt
<i>Limenitis populi bucovinensis</i> HORMUZACHI, 1897	<i>Populus</i> sp.	Rarely on <i>Sambucus racemosa</i>	Mh
<i>Neptis sappho aceris</i> (LEPECHIN, 1770)	<i>Lathyrus vernus</i>	Rarely observed on <i>Mentha longifolia</i> , <i>M. aquatica</i> , <i>Teledkia speciosa</i> , <i>Crataegus monogyna</i>	Mh
<i>Neptis rivularis</i> (SCOPOLI, 1763)	<i>Spiraea</i> sp.	Rarely on <i>Eupatorium cannabinum</i>	Mh
<i>Apatura iris</i> (LINNAEUS, 1758)	Salicaceae	Rarely on <i>Sambucus ebulus</i> , <i>Sambucus nigra</i> , <i>Aster amellus</i> , <i>Leucanthemum vulgare</i> , <i>Eupatorium cannabinum</i>	Mh
<i>Apatura ilia ilia</i> (DENIS & SCHIFFERMULLER, 1775)	Salicaceae	Rarely on: <i>Sambucus ebulus</i> , <i>Eupatorium cannabinum</i>	Mh

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Parage aegeria tircis</i> (BUTLER, 1867)	Poaceae	Cardamine impatiens, Fragaria vesca, Filipendula ulmaria, Rosa canina, Melilotus albus, Trifolium repens, Urtica dioica, Potentilla recta, Medicago lupulina, Tussilago farfara, Hypericum perforatum, Tanacetum vulgare, Linaria vulgaris	M
<i>Lasiommata megera</i> (LINNAEUS, 1758)	Poaceae	Digitalis grandiflora, Solidago virgaurea, Inula helenium, Primula veris, Impatiens noli-tangere, Lotus corniculatus, Linum flavum, Galium mollugo, Lamium album	M
<i>Lasiommata maera</i> (LINNAEUS, 1758)	Poaceae	Urtica dioica, Alliaria petiolata, Cardamine impatiens, Rubus idaeus, Rosa canina	M
<i>Coenonympha arcania</i> (LINNAEUS, 1761)	Poaceae	Urtica dioica, Viola tricolor, Symphytum officinale, Senecio vernalis, Galium mollugo, Vicia grandiflora, Fragaria vesca, Taraxacum officinale, Tanacetum vulgare, Achillea millefolium, Salvia nemorosa	M
<i>Coenonympha glycerion</i> (BORKHAUSEN, 1788)	Poaceae	Sinapis arvensis, Trifolium campestre, Salvia nemorosa, Anthyllis vulneraria, Stachys recta, Thymus serpyllum, Inula helenium, Tanacetum vulgare	M
<i>Coenonympha pamphilus</i> (LINNAEUS, 1758)	Poaceae	Cardamine pratensis, Geranium pratense, Silene vulgaris, Leucanthemum vulgare, Erigeron canadensis	M
<i>Pironia tithonus</i> (LINNAEUS, 1771)	Poaceae	Dianthus carthusianorum, Scabiosa ochroleuca, Leucanthemum vulgare, Thymus serpyllum, Prunella vulgaris	Xt
<i>Aphantopus hyperanthus</i> (LINNAEUS, 1758)	Poaceae	Taraxacum officinale, Viola tricolor, Telekia speciosa, Tanacetum vulgare	M
<i>Maniola jurtina</i> (LINNAEUS, 1758)	Poaceae	Leucanthemum vulgare, Centaurea cyanus, Galium purpureum, Dianthus carthusianorum, Verbascum thapsus, Eryngium campestre	M
<i>Erebia aethiops</i> (ESPER, 1777)	Poaceae	Telekia speciosa, Leucanthemum vulgare, Aster amellus, Inula hirta, Senecio jacobaea, Scabiosa ochroleuca	M

Taxa	Trophic source of larvae	Trophic source of the adults	E.E.
<i>Erebia ligea carthusianorum</i> (FRUHSTORFER, 1909)	Poaceae	Sambucus ebulus, Telekia speciosa, Inula hirta, Hypericum perforatum, Senecio jacobaea	M
<i>Melanargia galathea scollis</i> FRUHSTORFER, 1917	Poaceae	Leucanthemum vulgare, Aster amellus, Centaurea cyanus, Lotus corniculatus, Scabiosa columbaria	M
<i>Hipparchia fagi</i> (SCOPOLI, 1763)	Poaceae	Melilotus officinalis, Linaria vulgaris, Verbascum thapsus, Solidago virgaurea	Mt
<i>Hipparchia semele</i> (LINNAEUS, 1758)	Poaceae	Rarely on Sambucus ebulus, S. racemosa	Mt
<i>Minois dryas drymeia</i> FRUHSTORFER, 1903	Poaceae	Telekia speciosa, Tanacetum vulgare, Sambucus ebulus	Mt
<i>Chazara briseis</i> (LINNAEUS, 1764)	Poaceae	Rarely on Sambucus ebulus, S. racemosa, Scabiosa columbaria	Xt
<i>Brintesia circe pannonica</i> FRUHSTORFER, 1911	Poaceae	Rarely on Telekia speciosa, Sambucus ebulus	Xt

Abbreviations: EE= Ecological Exigencies; M= Mesophylous species; Mh= Mesohygrophylous species; Mt= Mesothermophylous species; Mxt= Mesoxerothermophylous species; Xt= Xerothermophylous specie

mer, a variety of *Menta*, *Stachys*, *Prunella*, *Urtica*, *Epilobium*, *Eupatorium*, *Sambucus* and large composites (Asteraceae) species are visited.

More than 90% of visits to flowers occurred to violet, blue and red flowers, but Asteraceae flowers especially yellow flowers like *Telekia speciosa*, *Hieracium pilosella*, *Taraxacum officinale*, *Chrysanthemum leucanthemum*, *Tanacetum vulgare*, etc, are also preferred by the majority of the butterflies.

Conclusions

The calcareous zone situated in the eastern part of the Poiana Ruscă Mountains has a rich flora and fauna. Especially the butterflies are represented by a diversity of species. Numerous individuals of these species were collected in the summer of 2004-2005. Of the total of 80 species, 5 species are rare or protected Romanian fauna.

REFERENCES

- BERGMANN A. 1952. Die Grossschmetterlinge Mitteldeutschlands. Urania Verlag, Gmbh., Jena Bd. 2, 495 p.
- BURNAZ S. & M. BALAZS. 2002. Argumente floristice și lepidopterofaunistice în favoarea includerii zonei carstice a bazinului Runcu-Govăjdie (Munții Poiana Ruscă) în lista rezervațiilor naturale ale județului Hunedoara (România). Bul. Inf. Soc. Lepid. Rom., 13(1-4): 27-40.
- CHINERY M. 1996. Insects of Britain & Western Europe. Harper Collins Publishers, London.
- COLDEA G. 1991. Documents phytosociologiques. Prodrome des associations végétales des Carpates du Sud-Est (Carpates Roumaines). Universita degli Studi, Camerino.
- FELTWELL J. (2001): The illustrated encyclopedia of butterflies. Chartwell Books. Ed. New Jersey.
- FOTESCU R. 1972. Contribuții la cunoașterea faunei de lepidoptere din bazinul Cernei și împrejurimile orașului Hunedoara. Sargetia, Acta Mus. Dev., Ser. Sci. Nat., Deva, 9: 117-130.
- HIRSCH MICHAELA & WOLTERS. 2003. Host plant preference of flower visitors in a mosaic landscape. Abh. Ber. Naturkundemus. Görlitz, 75(1): 11-22.
- KRAUTNER H. G. 1984. Munții Poiana Ruscă. Ghid turistic. Edit. Sport - Turism, București.
- MIHUȚ S. 2000. Biological, ecological and zoogeographical considerations on Romanian Butterflies. Evolution and Adaptation, Cluj-Napoca, 6:45-78.
- NICULESCU E.V. 1961. Lepidoptera. Familia Papilionidae. Fauna R.P.R., Edit. Acad. Rom., Insecta, 11(5).
- NICULESCU E.V. 1963. Lepidoptera. Familia Pieridae. Fauna R.P.R., Edit. Acad. Rom., București, 11(6).
- NICULESCU E.V. 1965. Lepidoptera. Familia Nymphalidae. Fauna R.S.R., Edit.

- Acad. Rom., București, 11(7).
- OANCEA D., VELCEA V., CALOIANU N., DRAGOMIRESCU S., DRAGU G., MIHAI E., NICULESCU G., SENCU V. & VELCEA I. 1987. Geografia României. III. Carpații Românești și Depresiunea Transilvaniei. Edit. Academiei, București, 303-306.
- RÁKOSY L. 2002. Lista roșie pentru fluturii diurni din România. Bul. Inf. Soc. Lepid. Rom., 13(1-4): 9-26.
- SPULER A. 1908-1910. Die Schmetterlinge Europas. Bd. I - IV, Stuttgart.
- STILL J. 1996. Butterflies & Moths. Collins wild Guide. Harper Collins Publishers. London.
- SZÉKELY L. 1999. Actualizarea sistematiei fluturilor diurne din România (Lepidoptera, Rhopalocera). Bul. Inf. Soc. Lepid. Rom., Cluj-Napoca, 10(1-4): 225-226.

Silvia BURNAZ
The Museum of Dacian and Roman Civilization,
39, "1 Decembrie" street,
Deva – Romania

Received: 8.12.2005
Accepted: 20.12.2005
Printed: 28.12.2005