

**STUDY ON THE MACROLEPIDOPTERA COLLECTED
FROM THE DUMBRAVA SIBIULUI FOREST EXISTING WITHIN
THE COLLECTION OF DR. VIKTOR WEINDEL**

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Abstract. This paper is part of a very large study involving research on the Macrolepidoptera species collected in the past and present along the perimeter of the "Sibiu Forest Grove". This study aims to prepare the red list of endangered or extinct species of this forest area. To prepare this study it was necessary to study the past collections, gathered by Saxon Macrolepidopterologists in Sibiu, Czekelius Daniel (1880-1938), Eugen Worell (1900-1958), Viktor Weindel (1903-1964), Heinrich von Hann Hanneheim (1922-1964), Rolf Weyrauch (1949-1978); these collections are available now at the Natural History Museum in Sibiu. This paper presents a systematic list of Macrolepidoptera from the Sibiu Forest Grove, Sibiu, from Viktor Weindel's collection.

Keywords: Macrolepidoptera, Dumbrava Sibiului Forest, Viktor Weindel collections.

Rezumat. Studiu privind speciile de Macrolepidoptere colectate din Pădurea Dumbrava Sibiului existente în colecția Dr. Viktor Weindel. Prezenta lucrare face parte dintr-un studiu desfășurat pe parcursul mai multor ani, legat de speciile de Macrolepidoptere colectate în trecut și în prezent din perimetrul Pădurii „Dumbrava Sibiu”. Acest studiu își propune să finalizeze „Lista roșie” a speciilor periclitate sau dispărute din zona Pădurii „Dumbrava Sibiu”. Pentru elaborarea acestui studiu a fost necesar cercetarea colecțiilor din trecut ale sașilor din Sibiu. Colecțiile studiate aparțin: Daniel Czekelius (1880-1938), Eugen Worell (1900-1958), Viktor Weindel (1903-1964), Heinrich von Hann Hanneheim (1922-1964), Rolf Weyrauch (1949-1978), aceste colecții se găsesc în prezent la Muzeul de Istorie Naturală din Sibiu. Prezenta lucrare cuprinde doar lista sistematică a macrolepidopterelor existente în colecția lui Viktor Weindel, specii colectate din perimetrul Pădurii „Dumbrava Sibiului”.

Cuvinte cheie: Macrolepidoptere, Pădurea „Dumbrava Sibiului”, colecția lui Viktor Weindel.

INTRODUCTION

Currently, fauna and ecological analysis of the reserve landscape show a great scientific and practical interest for Romania. The results can substantially contribute to the assessment of the conditions and evolution of entomofaunal ecosystems, as well as to the assessment of the climate quantitative and qualitative changes. In the present investigation there was systematically studied the families of Lepidoptera in Sibiu Forest Grove, according to the existing material in Viktor Weindel's collection.



Viktor Weindel (1887-1966)

Dr. Viktor Weindel is closely linked to the history of medicine in Sibiu. He had extremely varied activity both as a doctor and within the framework of for the Society of Natural Sciences. Born in Sibiu, he graduated from the secondary school here and after studying at the Faculty of Medicine in Cluj-Napoca, Budapest, and Munich, he was designated as a secondary doctor at Franz-Joseph hospital. He took part in the War of 1914-1918 until the last day as a doctor while continuing his activity at the hospital as well. As a lepidopterist collector, he began as a child. The oldest specimens in his collection are from the beginning of the last century. Even if it is not a large collection in Sibiu, however, it contains specimens gathered over a period of 60 years from many places. Thus, there are specimens collected from more distant surroundings of Sibiu, from south and east Transylvania, from Turnu Rosu and the hilly region. In a note entitled "The origin of my butterfly collection", he writes: "The cardinal points of my collecting work are: Sibiu, Gusterita Vineyards Sibiu Cîsnădoara, Sibiu Forest Grove, Sadu, Cîsnădie, Păltiniș Magura Cîsnădiei". After his retirement due to his serious illness, the arrangement and processing of the collection were not done. Thus, the collection arrived at the Museum in a less ordered state. Here, there were ordered 4,322 specimens of Macro- and Microlepidoptera collected between 1900 and 1959 from Transylvania (Sibiu and around the city). SCHNEIDER (1984) published a list with the material of Lepidoptera, collected from other geographical areas of Romania. There are

more than 42 works noted on a list in Weindel's handwriting. There are noted almost exclusively medicine issues, as there is no title on Lepidoptera, only the 80-year anniversary of his Czekelius (WEINDEL, 1935, 1936) and his obituary (WEINDEL, 1937, 1938). This collection includes rare and very interesting in terms of collection biogeographic areas. Microlepidoptera collection has to be processed, updated, and published.

MATERIAL AND METHODS

The presented material comes from the entomological collection of Viktor Weindel, preserved in the Natural Museum in Sibiu in store. The 3,490 specimens were collected during the years 1904-1954 by Viktor Weindel in the neighbourhood of Sibiu, specifically from the Forest Grove area. After consulting the collection, the determination was made after the copyright material, some species being updated according to the works of KOCH (1991), POPESCU-GORJ (1980), and reference papers in Romania, among which a Catalogue of Butterflies, RAKOSY et al. (2003).

The paper contains a systematic list of 142 Macrolepidopteran species with 385 specimens collected from the Forest Grove area of Sibiu, which are grouped into 10 families (Drepanidae, Thyatiridae, Geometridae, Sphingidae, Lymantriidae, Arctiidae, Hesperidae, Papilionidae, Nymphalidae, Lycaenidae). For each species the following data are given: Genus, family, year, month and day of collecting. In some species, according to the author, it is not mentioned the collection day, month and year only.

RESULTS AND DISCUSSIONS

After analysing the material, these species previously reported by Viktor Weindel in the Forest Grove area have been identified (species list). The present scientific situation of the collection of Lepidoptera of Viktor Weindel currently found in the Museum of Natural History in Sibiu, is rendered in Table 1.

Table 1. Lepidoptera from the Collection of Dr. Viktor Weindel. / Tabel 1. Lepidoptere din colecția Dr. Viktor Weindel.

Superfamilies	Families	Number of species	%	Number of specimens	%
MACROLEPIDOPTERA					
BOMBYCOIDEA	Lasiocampidae	11	1.91	62	1.77
	Lemoniidae	1	0.17	9	0.25
	Saturnidae	3	0.52	9	0.25
DREPANOIDEA	Drepanidae	3	0.52	12	0.34
	Thyatiridae	4	0.69	9	0.25
GEOMETROIDEA	Geometridae	170	29.66	773	22.14
SPHINGOIDEA	Sphingidae	19	3.31	52	1.48
NOTODONTOIDEA	Notodontidae	17	2.96	49	1.40
	Dilobidae	1	0.17	1	0.02
	Thaumatopeidae	1	0.17	2	0.05
NOCTUIDEA	Lymantriidae	10	1.74	62	1.77
	Arctiidae	26	4.53	102	2.92
	Ctenuchidae	2	0.34	16	0.45
	Nolidae	1	0.17	2	0.05
	Noctuidae	178	31.06	634	18.16
HESPERIOIDEA	Hesperidae	12	2.09	117	3.35
PAPILIONOIDEA	Papilionidae	6	1.04	88	2.52
	Pieridae	13	2.26	307	8.79
	Nymphalidae	38	6.63	420	12.03
	Satyridae	22	3.83	359	10.28
	Riodimidae	1	0.17	12	0.34
	Lycaenidae	34	5.93	393	11.26
TOTAL		573	100%	3490	%

List of Macrolepidoptera species collected from the Sibiu Forest Grove present in the Collection of Viktor Weindel:

Superfamily GEOMETROIDEA

Family DREPANIDAE

Genus *Cilix* LEACH, 1815 (*Euclea* HÜBNER [1819])

1. *Cilix glaucata* SCOPOLI 1763

Material examined: 1 specimen, April 1920, VW.

Family THYATIRIDAE

Genus *Tethea* OCHSENHEIMER 1816

(syn. *palimpsestis* HÜBNER [1821]; *bombycia* HÜBNER [1821];

Ceropacha STEPHENS 1829; *Ceratopacha* STEPHENS, 1850)

2. *Tethea or or* DENIS & SCHIFFERMÜLLER 1775 (syn. *Cymatophora or* FABRICIUS)

Material examined: 1 spec., July 25, 1904, VW; 1 spec., May 18, 1904, VW; P"DS".

Family GEOMETRIDAE

Subfamily Archiearinae

(syn. Brephinae)

Genus *Archiearis* HUBNER 1823

3. *Archiearis parthenias* LINNAEUS 1761

Material examined: 2 specs., March 12, 1922; March 29, 1923, VW.

4. *Archiearis notha* HÜBNER [1803]

Material examined: 3 specs., March 12, 1923, VW.

Subfamilia OENOCHROMINAE

Genus *Alsophila* HÜBNER 1825

(*Anisopteryx* auct.)

5. *Alsophila aescularia* DENIS & SCHIFFERMÜLLER 1775

Material examined: 2 specs., March 12, 1922, VW.

Subfamily GeometrinaeGenus *Geometra* LINNAEUS 1758(syn. *Hipparchus* LEACH [1815]; *Leprotornis* BILLBERG 1820; *Holothalassis* HÜBNER [1823])Genus *Pseudoterpnia* HUBNER 1823**6. *Pseudoterpnia pruinata*** HUFNAGEL 1767

Material examined: 1 spec., July 9, 1907, VW.

Genus *Chlorissa* STEPHENS 1831(syn. *Nemoria* auct.)**7. *Chlorissa viridata*** LINNAEUS 1758

Material examined: 1 spec., June 18, 1903, VW.

Genus *Cyclophora* HÜBNER 1822(syn. *Cosymbia* HÜBNER 1823; *Leucophthalmia* HÜBNER 1823;*Codonia* HÜBNER 1825; *Ephyra* DUPONCHEL 1829;*Zonosoma* LEDERER 1853)**8. *Cyclophora punctaria*** LINNAEUS 1758

Material examined: 1 spec., April 27, 1904, VW.

Subfamily SterrhinaeGenus *Timandra* DUPONCHEL 1829(syn. *Calothysanis* auct.; *Bradyepetes* STEPHENS 1813)**9. *Timandra griseata*** W. PETERSEN 1902(syn. *Calothysanis amata* auct.)

Material examined: 1 spec., July 7, 1907, VW.

Genus *Scopula* SCHRANK 1802(syn. *Calothysanis* HÜBNER 1823; *Acidalia*TREITSCHKE 1825; *Leptomeres* HÜBNER [1825];*Craspedia* HÜBNER [1825]; *Dosithea*DUPONCHEL 1829; *Cymatida* SODOFFSKY 1837; *Sidonia*DUPONCHEL 1842; *Pylarge* HERRICH-SCHÄFFER 1856)**10. *Scopula immorata*** LINNAEUS 1758

Material examined: 3 specs., July 10, 1923; June 18, 1903, VW; June 19, 1907, VW.

11. *Scopula nigropunctata* HUFNAGEL 1767(syn. *S. strigilaria* auct.)

Material examined: 1 spec., July 9, 1907, VW.

12. *Scopula decorata decorata* DENIS &

SCHIFFERMÜLLER 1775

(syn. *Acidalia violata* TREITSCHKE 1825)

Material examined: 1 spec., March 6, 1904, VW.

Genus *Idaea* TREITSCHKE, 1825(syn. *Sterrho* HÜBNER [1825]; *Arrhostia* HÜBNER[1825]; *Ptychopoda* CURTIS 1826; *Hyria* STEPHENS1829; *Ania* TEPHENS 1831; *Antesis* WARREN 1900)**13. *Idaea aversata aversata*** LINNAEUS 1758

Material examined: 1 spec., March 6, 1904, VW.

14. *Idaea ochrata* SCOPOLI 1763

Material examined: 3 specs., June 18, 1903; June 19, 1907; July 7, 1908, VW.

Subfamily LarentiinaeGenus *Lythria* HÜBNER [1823]**15. *Lythria purpuraria*** LINNAEUS 1758

Material examined: 1 spec., July 14, 1904, VW.

Genus *Scotopteryx* HÜBNER [1825](syn. *Ortholiitha* auct.; *Onychia* HÜBNER [1825];*Phasiane* DUPONCHEL 1829; *Eubolia* DUPONCHEL1829; *Eusebia* DUPONCHEL [1845])**16. *Scotopteryx luridata*** HUFNAGEL 1767(syn. *Ortholiitha plumbaria* FABRICIUS 1775)

Material examined: 2 specs., May 21, 1904; June 7, 1953, VW.

Genus *Xanthorhoe* HÜBNER [1825](syn. *Melenydris* HÜBNER [1825]; *Ochyria* HÜBNER [1825]; *Coremia* GUENÉE 1845; *Boremia*, erreur)**17. *Xanthorhoe ferrugata*** CLERCK 1759(syn. *X. unidentaria* HAWORTH 1809)

Material examined: 1 spec., June 18, leg. Czekelius (collection does not appear on the label of the collection year), VW.

Genus *Epirrhoe* HÜBNER [1825]**18. *Epirrhoe alternata*** MÜLLER 1764(syn. *E. sociata* BORKHAUSEN 1794)

Material examined: 1 spec., June 19, 1907, VW.

19. *Epirrhoe tristata* LINNAEUS 1758

Material examined: 2 specs., May 29, 1903, VW.

Genus *Camptogramma* STEPHENS 1831**20. *Camptogramma bilineata*** LINNAEUS 1758

Material examined: 1 spec., June 17, 1923, VW.

Genus *Pelurga* HÜBNER [1825](syn. *Electra* STEPHENS 1829)**21. *Pelurga comitata*** LINNAEUS 1758

Material examined: 1 spec., March 13, 1904, VW.

Genus *Philereme* HÜBNER [1825](syn. *Scotosia* STEPHENS 1829)**22. *Philereme vetulata*** DENIS &

SCHIFFERMÜLLER 1775

Material examined: 2 specs., May 29, 1921; July 24, 1904, VW.

Genus *Operophtera* HÜBNER [1825](syn. *Operophtera* HÜBNER [1826])**23. *Operophtera brumata*** LINNAEUS 1758

Material examined: 17 specs., December 2, 1956, VW.

Genus *Perizoma* HÜBNER [1825](syn. *Mesotype* HÜBNER [1825]; *Emmelesia* STEPHENS, 1831)**24. *Perizoma alchemillata*** LINNAEUS 1758

Material examined: 2 specs., July 9, 1907; March 10, 1904, VW.

Genus *Odezia* BOISDUVAL 1840(syn. *Tanagra* DUPONCEL 1829; nec. LINNAEUS 1764)**25. *Odezia atrata*** LINNAEUS 1758

Material examined: 1 spec., June 13, 1907, VW.

Genus *Lomaspilis* HÜBNER [1825](syn. *Poecilophasia* STEPHENS 1831)**26. *Lomaspilis marginata*** LINNAEUS 1758

Material examined: 1 spec., May 12, 1904, VW.

Genus *Plagodis* HÜBNER [1823](syn. *Anagoga* HÜBNER [1823], *Anagoge*, erreur;*Azinephora* STEPHENS 1827; *Eurymene* DUPONCHEL1829; *Numeria* DUPONCHEL 1829)**27. *Plagodis dolabraria*** LINNAEUS 1767

Material examined: 1 spec., May 12, 1904, VW.

Genus *Pseudopanthera* HÜBNER [1823](syn. *Venilia* DUPONCHEL 1829)**28. *Pseudopanthera macularia*** LINNAEUS 1758

Material examined: 3 specs., May 21; June 18, 1903; May 29, 1921, VW.

Genus *Selenia* HÜBNER [1823]**29. *Selenia tetralunaria*** HUFNAGEL 1767

Material examined: 1 spec., July 25, 1904, VW.

Genus *Colotois* HÜBNER [1823]

(syn. *Metra* STEPHENS 1827; *Himera* DUPONCHEL 1829)

30. *Colotois pennaria* LINNAEUS 1761

Material examined: 1 spec., July 14, 1904, VW.

Genus *Angerona* DUPONCHEL 1829

31. *Angerona prunaria* LINNAEUS 1758

Material examined: 1 spec., June 13, 1907, VW.

Genus *Biston* LEACH [1815]

(syn. *Dasyphara* BILLBERG 1820; *Pachys* HÜBNER 1822; *Amphidasis* TREITSCHKE 1825; *Eubyja* HÜBNER [1825]; *Amphidasys* SODOFFSKY 1837)

32. *Biston betularia* LINNAEUS 1758

Material examined: 2 specs., July 19, 1904, VW.

33. *Biston strataria* HUFNAGEL 1767

Material examined: 2 specs., March 26, 1904, VW.

Genus *Agriopis* HÜBNER [1825]

(syn. *Anisopteryx* STEPHENS 1827; *Cryopega* DUMONT 1925)

34. *Agriopis marginaria* FABRICIUS 1777

Material examined: 2 specs., April 4, 1904; March 12, 1922, VW.

Subfamily Boarminae

Genus *Boarmia* TREITSCHKE 1825

(*Dryocoetis* HÜBNER [1825])

35. *Boarmia roboraria* DENIS &

SCHIFFERMÜLLER 1775

Material examined: 1 spec., May 30 (without collecting year), VW.

Genus *Ematurga* LEDERER 1853

36. *Ematurga atomaris atomaria* LINNAEUS

1758

Material examined: 3 specs., April 1920 (does not appear on the label collection); May 12, 1904, VW.

Genus *Cabera* TREITSCHKE 1825

(*Deilina* HÜBNER [1825])

37. *Cabera pusaria* LINNAEUS 1758

Material examined: 2 specs., May 12, 1904; June 18, 1903, VW.

Genus *Campaea* LAMARCK 1816

(*Tribacis* BILLBERG 1816; *Metrocampus Berthold* in LATREILLE 1827; *Metrocampa* BRUAND 1846)

38. *Campaea margaritata* LINNAEUS 1767

Material examined: 1 spec., March 6, 1904, VW.

Genus *Siona* DUPONCHEL 1829

(syn. *Scoria* STEPHENS 1891)

39. *Siona lineata* SCOPOLI 1763

Material examined: 4 specs., June 17, 1923; May 29, 1921; June 13, 1904, VW.

Superfamily SPHINGOIDEA

Family SPHINGIDAE

Genus *Agrius* HÜBNER [1819]

(syn. *Herse* OKEN 1815, *Herse* AGASSIZ 1846)

Genus *Sphinx* LINNAEUS 1758

(*Spectrum* SCOPOLI 1777; *Lethia* HÜBNER [1819])

40. *Sphinx ligustri ligustri* LINNAEUS 1758

Material examined: 1 spec.; June 29, 1952 VW

Superfamily NOCTUOIDEA

Family LYMANTRIIDAE

Genus *Orgya* OCHSENHEIMER 1810

41. *Orgya antiqua* LINNAEUS 1758

Material examined: 1 spec., October 25, 1955, VW.

Genus *Euproctis* HÜBNER [1819]

(syn. *Liparis* OCHSENHEIMER 1810; *Nygmia* HÜBNER [1820]; *Porthesia* STEPHENS 1828)

42. *Euproctis similis* FUESSLY 1775

Material examined: 2 specs., July 7, 1908; July 27, 1904, VW.

Family ARCTIIDAE

Subfamily Lithosiinae

Genus *Eilema* HÜBNER [1819]

(syn. *Systropha* HÜBNER [1819]; *Piesta* BILLBERG 1820; *Ilema* HAMPSON 1900; *Colinia* AGENJO 1977, nec. COSSMANN, 1906, nec. NUTTALL, 1832)

43. *Eilema sororcula* HUFNAGEL 1766

Material examined: 5 specs., May 29, 1921, VW.

44. *Eilema lurideola* ZINCKEN 1817

Material examined: 1 spec., July 19, 1907, VW.

Subfamily Arctiinae

Genus *Arctinia* EICHWALD 1830

(syn. *Phragmatobia* STEPHENS 1828)

45. *Arctinia caesarea* GÖEZE 1781

(syn. *Phragmatobia caesarea* GÖEZE 1781)

Material examined: 1 spec., May 21, 1904, VW.

Genus *Diacrisia* HÜBNER [1819]

(*Euthemonia* STEPHENS 1828; *Rhyparioides* BUTLER 1877)

46. *Diacrisia sannio* LINNAEUS 1758

Material examined: 3 specs., May 20, 1903; May 29, 1921; June 13, 1907, VW.

Subfamily Callimorphinae

Genus *Callimorpha* LATREILLE 1809

(*Euplagia* HÜBNER 1820; *Panaxia* TAMS 1939)

47. *Callimorpha quadripunctaria* PODA 1761

Material examined: 2 specs., March 11, 1904; May 15, 1903, VW.

Family NOCTUIDAE

Subfamily Noctuiniae

(Trifinae)

Genus *Agrotis* OCHSENHEIMER 1816

(syn. *Scotia* HÜBNER [1821]; *Agronoma* HÜBNER [1821]; *Georyx* HÜBNER [1821]; *Noctua* BOISDUVAL 1828, nec. LINNAEUS 1758; *Psammophiila* STEPHENS 1850)

48. *Agrotis segetum* DENIS & SCHIFFERMÜLLER

1775

Material examined: 3 specs., May 18, 1904; May 21, 1938, VW.

49. *Agrotis ipsilon* HUFNAGEL 1766

Material examined: 2 specs., May 18, 1904, VW 3 ex.; March 18, 1904, VW.

Genus *Noctua* LINNAEUS 1758

(syn. *Triphaena* OCHSENHEIMER 1816; *Lampra* HÜBNER [1820];

Euschesis HÜBNER [1821])

50. *Noctua pronuba* LINNAEUS 1758

Material examined: 2 specs., May 20, 1910, VW.

Genus *Xestia* HÜBNER 1818

(syn. *Amathes* HÜBNER [1821]; *Megasema* HÜBNER [1821]; *Lytaea* STEPHENS 1829; *Segetia* STEPHENS 1829)

51. *Xestia baja* DENIS & SCHIFFERMÜLLER 1775
Material examined: 4 specs., May 8, 1904; 17, May 18, 1904, VW.

Genus *Naenia* STEPHENS 1827

52. *Naenia typica* LINNAEUS 1758
Material examined: 1 spec., August 25, 1904, VW.

Subfamily Hadeninae

Genus *Polia* OCHSENHEIMER 1816

(*Aplecta* GUENÉE 1838)

53. *Polia nebulosa* HUFNAGEL 1766
Material examined: 1 spec., May 11, 1904, VW.

Genus *Mamestra* OCHSENHEIMER 1816

(syn. *Lacanobia* BILLBERG 1820; *Melanchnra* HÜBNER [1820]; *Barathra* HÜBNER [1821]; *Diataraxia* HÜBNER [1821]; *Ceramica* GUENÉE 1852; *Hecatera* GUENÉE 1852; *Peucephila* HAMPSON 1909)

Subgenus *Mamestra* OCHSENHEIMER 1816

54. *Mamestra brassicae* LINNAEUS 1758
Material examined: 1 spec., May 18, 1904, VW.

Genus *Orthosia* OCHSENHEIMER 1816

(syn. *Orthoa* BILLBERG 1820; *Monima* HÜBNER 1821; *Cuphanoa* HÜBNER [1821]; *Semiophora* STEPHENS 1829; *Taeniocampa* GUENÉE 1839)

55. *Orthosia cruda* DENIS & SCHIFFERMÜLLER 1775 (syn. *Monima pulverulenta* ESPER 1786)
Material examined: 3 specs., 26, March 1904; 29 March, 1905; April 2 (without collecting year); April 4, 15, 1904, VW.

56. *Orthosia gracilis* DENIS & SCHIFFERMÜLLER 1775
Material examined: 1 ex.; April 2 (without collecting year) VW

57. *Orthosia munda* DENIS & SCHIFFERMÜLLER 1775

Material examined: 6 specs., March 26, 1904; March 29,30, 1904; April 13,15, 1904, VW.

58. *Orthosia gothica* LINNAEUS 1758
Material examined: 3 specs., April 13, 14. April, 1904, VW.

Genus *Mythimna* OCHSENHEIMER 1816

(syn. *Philostola* BILLBERG 1820; *Aletia* HÜBNER [1821]; *Hyperiodes* WARREN 1910; *Pseudaletia* FRANCLEMONT 1951; *Leucania* OCHSENHEIMER 1816; *Hyphilare* HÜBNER 1821)

Subgenus *Mythimna* OCHSENHEIMER 1816

59. *Mythimna conigera* DENIS & SCHIFFERMÜLLER 1775
Material examined: 1 spec., March 6, 1904, VW.

60. *Mythimna albipuncta* DENIS & SCHIFFERMÜLLER 1775
Material examined: 3 specs., March 1, 18, 24, 1904, VW.

Subfamily Cuculliinae

Genus *Lithophane* HÜBNER [1821]

(*Graptolitha* HÜBNER [1821]; *Rhizolitha* CURTIS [1830])

61. *Lithophane ornitopus* HUFNAGEL 1766
Material examined: 2 specs., April 15, 1904. VW.

Genus *Eupsilia* HÜBNER [1821]

(syn. *Scopelosoma* CURTIS 1837; *Mecoptera*, GUENÉE 1837)

62. *Eupsilia transversa* HUFNAGEL 1766
(syn. *E. satellitia* LINNAEUS 1767)

Material examined: 5 specs., March 16, 26, 1904, VW.

Genus *Conistra* HÜBNER 1821

(syn. *Orrhodia* HÜBNER [1821]; *Gloia* HÜBNER 1822; *Gleae*, erreur)

Subgenus *Conistra* HÜBNER 1821, s.str.

63. *Conistra (C.) vaccinii* LINNAEUS 1761
Material examined: 5 specs., March 11, 26, 1904; 5 specs., April 4, 9, 14, 5, 1904; March 29, 1905, VW.

64. *Conistra rubiginosa* SCOPOLI 1763
Material examined: 1 spec., March 26, 1904, VW.

Genus *Dasycampa* GUENÉE 1937

65. *Dasycampa erythrocephala* DENIS & SCHIFFERMÜLLER 1775

Material examined: 4 specs., March 29, 30, 1905; 4 specs., April 13,16, 1904; 1 spec., 9 March (without collecting year), VW.

Genus *Acronicta* OCHSENHEIMER 1816

(syn. *Apatele* HÜBNER 1822; *Acronycta* TREITSCHKE 1825)

Subgenus *Viminia* CHAPMAN 1890

(syn. *Pharetra* HÜBNER 1820, nec. BOLTER 1728)

66. *Acronicta (Viminia) rumicis rumicis* LINNAEUS 1758

Material examined: 1 spec., April 25, 1904, VW.

Genus *Craniophora* SNELLEN 1867

(syn. *Bisulcia* CHAPMAN 1890)

67. *Craniophora ligustri* DENIS & SCHIFFERMÜLLER 1775

Material examined: 2 specs., March 6, 8, 1904, VW.

Subfamily Amphipyrae

Genus *Amphipyra* OCHSENHEIMER 1816

(*Scotophila* HÜBNER [1821]; *Pyrophila* STEPHENS 1829; *Philopry* GUENÉE 1837)

68. *Amphipyra pyramidea* LINNAEUS 1758
Material examined: 2 specs., May 6, 1904, VW.

Genus *Rusina* STEPHENS 1829

(syn. *Stygiostola* HAMPSON 1908)

69. *Rusina ferruginea* ESPER 1785
Material examined: 1 spec., May 6, 1904, VW.

Genus *Thalpophila* HÜBNER 1820

(*Cerigo* STEPHENS, 1829)

70. *Thalpophila matura matura* HUFNAGEL 1776

Material examined: 2 specs., May 17, 1904, VW.

Genus *Trachea* OCHSENHEIMER 1816

(*Achatis* BILLBERG 1820)

71. *Trachea atriplicis* LINNAEUS 1758
Material examined: 1 spec., May 18, 1904, VW.

Genus *Cosmia* OCHSENHEIMER 1816

(syn. *Eustehnia* HÜBNER 1821)

Subgenus *Cosmia* OCHSENHEIMER 1816

72. *Cosmia (Calymnia) trapezina* LINNAEUS 1758
Material examined: 2 specs., May 17, 18 1904, VW.

Genus *Apamea* OCHSENHEIMER 1816

(syn. *Abromias* BILLBERG 1820; *Septis* HÜBNER [1821]; *Xylophasia* STEPHENS 1819; *Hana* STEPHENS

1829; *Crymodes* GUENÉE 1841; *Syma* STEPHENS 1850, nec. LESSON 1827)

73. *Apamea monoglypha monoglypha*

HUFNAGEL 1766

Material examined: 1 spec., May 27, 1904, VW.

Genus *Mesapamea* HEINICKE 1959

74. *Mesapamea secalis* LINNAEUS 1758

Material examined: 2 specs., May 17, 18, 1904, VW.

Genus *Amphipoea* BILLBERG 1820

75. *Amphipoea oculea oculea* LINNAEUS 1761

Material examined: 1 spec., May 11, 1904, VW.

Genus *Hoplodrina* BOURSIN 1937

76. *Hoplodrina blanda* DENIS &

SCHIFFERMÜLLER 1775 (syn. *H. taraxaci* HÜBNER 1813)

Material examined: 3 specs., May 8, 11, 27, 1904, VW.

Subfamily Catocalinae

Genus *Catocala* SCHRANK 1802

(syn. *Astiotes* HÜBNER 1823, *Hemigeometra* HAWORTH 1809, *Mormonia* HÜBNER [1823])

77. *Catocala sposa* LINNAEUS 1767

Material examined: 3 specs., July 23, 1907; 26.VII.1904; 2 specs., May 8, 11, 1904, VW.

78. *Catocala elocata* ESPER 1788

Material examined: 1 spec., May 16, 1904, VW.

79. *Catocala promissa* DENIS &

SCHIFFERMÜLLER 1775

Material examined: 2 specs., July 8, 1907, VW.

Genus *Minucia* MOORE 1885

(syn. *Ophiodes* GUENÉE 1841; *Pseudophia* GUENÉE 1852; *Anua* WALKER 1858)

80. *Minucia lunaris* DENIS & SCHIFFERMÜLLER

1775

Material examined: 1 spec., May 3, 1912, VW.

Genus *Euclidia* OCHSENHEIMER 1816

(syn. *Ectypa* BILLBERG 1820)

81. *Euclidia glyphica* LINNAEUS 1758

Material examined: 1 spec., April 1920 (without collecting year), VW.

Subfamily Ophiderinae

Genus *Scoliopteryx* GERMAR 1811

(syn. *Pterodonta* REICHENBACH LEIPZIG 1817; *Ephenias* HÜBNER 1821; *Euphais* HÜBNER 1822;

Gonoptera BERTHOLD in LATREILLE 1827, nec. BILLBERG 1820)

82. *Scoliopteryx libatrix* LINNAEUS 1758

Material examined: 1 spec., April 15, 1904, VW.

Genus *Phytometra* HAWORTH 1809

(syn. *Prothymia* HÜBNER 1823; *Antarchaea*, auct.)

83. *Phytometra viridaria* CLERCK 1759

Material examined: 2 specs., April 1920 (without collecting year), VW.

Subfamily Hypeninae

Genus *Polypon* SCHRANK 1802

84. *Polypon tentacularia* LINNAEUS 1758

Material examined: 4 specs., May 29, 1921; June 10, 1923; June 19, 1907, VW.

Genus *Paracolax* HÜBNER 1825

85. *Paracolax derivalis* HÜBNER 1796

Material examined: 1 spec., July 14, 1904, VW.

Genus *Hypena* SCHRANK 1802

(syn. *Erichila* BILLBERG 1820; *Herpyzon* HÜBNER 1822)

86. *Hypena (H) proboscidalis* LINNAEUS 1758

Material examined: 1 spec., June 14, 1903, VW.

Superfamily HESPERIOIDEA

Family HESPERIIDAE

Genus *Erynnis* SCHRANK, 1801

(syn. *Thymele* FABRICIUS 1807; *Astycus* HÜBNER 1822; *Nisoniades* auct., *Thanaos* BOIDUVAL 1834)

87. *Erynnis tages tages* LINNAEUS 1758

Material examined: 3 specs., July 23, 25, 1921; May 1, 1903, VW.

Genus *Carcharodus* HÜBNER 1819

(syn. *Spilothyrus* DUPONCHEL 1835; *Reverdinus* RAGUSA 1919; *Lavatheria* VERITY 1940)

88. *Carcharodus flocciferus flocciferus*

ZELLER 1847 (syn. *C. altheae* HÜBNER 1803)

Material examined: 1 spec., June 13, 1907, VW.

Genus *Pyrgus* HÜBNER 1819

(syn. *Syrichtus* auct.; *Hemiteleomoepha* WARREN 1926)

89. *Pyrgus alveolus* HÜBNER 1803

Material examined: 2 specs., September 5 (without collecting year), July 9, 1907, VW.

Subfamily Hesperinae

Genus *Hesperia* FABRICIUS 1793

(syn. *Pamphila* FABRICIUS 1807; *Urbicola* TUTT 1905; *Augiades* auct.)

90. *Hesperia comma comma* LINNAEUS 1758

Material examined: 4 specs., May 15, 1903, VW.

Genus *Ochlodes* SCUDDER 1872

91. *Ochlodes venatus faunus* TURATI 1905

(syn. *O. sylvanus* ESPER 1779)

Material examined: 4 specs., June 22, 1980; July 9, 19, 1907; May 1, 1903; May 14, 1904, VW.

Superfamily PAPILIONOIDEA

Family PAPILIONIDAE

Subfamily Papilioninae

Genus *Papilio* LINNAEUS 1758

(syn. *Pterourus* SCOPOLI 1777)

92. *Papilio machaon machaon* LINNAEUS 1758

Material examined: 2 specs., May 17, 1902; July 9, 1904, VW.

Genus *Iphiclides* HÜBNER 1819

93. *Iphiclides podalirius podalirius* SCOPOLI

1763

Material examined: 1 spec., July 14, 1904, VW.

Family PIERIDAE

Subfamily Dismorphiinae

Genus *Leptidea* BILLBERG 1820

(syn. *Leucophasia* STEPHENS 1827; *Leptosia* auct.; *Letidia*, erreur)

94. *Leptidea sinapis diniensis* BOISDUVAL 1839

Material examined: 2 specs., July 4, 1904; July 7, 1908, VW; 4 specs., July 9, 1907; July 14, 1904; July 26, 1904; May 8, 1954, VW.

95. *Leptidea lathyri* HÜBNER 1819

Material examined: 3 specs., April 1920 (no collection day); May 21, 1921, VW.

Genus *Aporia* HÜBNER [1819]

96. *Aporia crataegi crataegi* LINNAEUS 1758

Material examined: 2 specs., June 12, 1904; June 13, 1907, VW.

Subfamily Pierinae

Genus *Pieris* SCHRANK 1801

(syn. *Ganoris* DALMAN 1816; *Andropodum* HUBNER 1822; *Tachyptera* BERGE 1842)

97. *Pieris brassicae brassicae* LINNAEUS 1758

Material examined: 68 ♀♀, 3 specs., May 21, 1904; July 2; July 4; 2 specs., July 11; 5 specs., July 18; May 1, 1903, VW.

98. *Pieris rapae rapae* LINNAEUS 1758

Material examined: 3 specs., April, 1920 (non-collection day), May 11, 1955; May 21, 1904, VW.

99. *Pieris napi meridionalis* HEYNE 1895

Material examined: 2 specs., April 1920 (non-collection day); April 10, 1921, VW.

Genus *Pontia* FABRICIUS 1807

(syn. *Leucochloë* RÖBER 1907)

100. *Pontia daplidice daplidice* LINNAEUS, 1758

Material examined: 1 spec., October 3, 1926, VW.

Genus *Anthocharis* BOISDUVAL

RAMBUR & GRASLIN [1833]

101. *Anthocharis cardamines meridionalis*

VERITY 1908

Material examined: 4 specs., April, 1920 (non-collection day); May 12, 1904; May 17, 1902; June 7, 1953, VW.

Subfamily Coliadinae

Genus *Colias* FABRICIUS 1807

(syn. *Zerene* HUBNER [1819]; *Eurymus* HORSFIELD nec. RAFINESQUE 1815)

102. *Colias hyale hyale* LINNAEUS 1758

Material examined: 1 spec., May 12, 1904; 5 ♂♂, July 11, July 22, May 15, 1903, VW.

103. *Colias myrmidone* ESPER, 1803

Material examined: 2 specs., May 29, 1921, VW.

Family NYMPHALIDAE**Subfamily Nymphalinae**

Genus *Apatura* FABRICIUS 1807

(syn. *Aeola* BILLBERG 1820)

104. *Apatura iris iris* LINNAEUS 1758

Material examined: 1 spec., July 14, 1904, VW.

105. *Apatura ilia ilia* DENIS &

SCHIFFERMÜLLER 1775

Material examined: 1 spec., July 14, 1904, VW.

Genus *Limenitis* FABRICIUS 1807

(syn. *Nymphalus* BOITARD 1828; *Ladoga* MOORE [1898])

106. *Limenitis populi populi* LINNAEUS 1758

Material examined: 1 spec., June 12, 1904, VW.

Genus *Nymphalis* KLUK 1802

(syn. *Scudderia* GROTE 1873, nec. STÅL 1873; *Euvanessa* SCUDDER 1889)

107. *Nymphalis xanthomelas* DENIS &

SCHIFFERMÜLLER 1775

Material examined: 2 specs., June 9, 1947, EW; July 9, 1904, VW.

Genus *Vanessa* FABRICIUS 1807

(syn. *Pyrameis* HÜBNER [1819])

108. *Vanessa cardui* LINNAEUS 1758

Material examined: 1 spec., July 30, 1907, VW.

Genus *Aglais* DALMAN 1816

(syn. *Ichnusa* REUSS 1939)

109. *Aglais urticae urticae* LINNAEUS 1758

Material examined: 1 spec., March 12, 1922, VW.

Genus *Polygonia* HÜBNER [1819]

(syn. *Eugonia* HÜBNER [1819])

110. *Polygonia c-album c-album* LINNAEUS

1758

Material examined: 4 specs., March 12, 1922; March 29, 1923; April 1920 (non-collection day); April 15, 1956; April 26, 1904, VW.

Genus *Araschnia* HÜBNER [1819]

111. *Araschnia levana levana* LINNAEUS 1758

Material examined: 3 specs., July 9, 1907; July 14, 1903; July 14, 1904, VW.

Genus *Argynnis* FABRICIUS 1807

Subgenus *Mesoacidalia* REUSS 1926

112. *Argynnis (Mesoacidalia) aglaja aglaja*

LINNAEUS 1758 (syn. *M. charlotta* HAWORTH 1803)

Material examined: 2 specs., July 3, 1903; July 14, 1903, VW.

Subgenus *Fabriciana* REUSS 1920

113. *Argynnis (Fabriciana) addipe addipe*

DENIS & SCHIFFERMÜLLER 1775

Material examined: 2 specs., June 10, 1923; July 31, 1903, VW.

114. *Argynnis (Fabriciana) niobe niobe*

LINNAEUS 1758

Material examined: 1 spec., June 21, 1904, VW.

Subgenus *Argynnis* FABRICIUS 1807

115. *Argynnis (Argynnis) paphia paphia*

LINNAEUS 1758

Material examined: 2 specs., July 3, 1903; July 14, 1903, VW.

Genus *Clossiana* REUSS 1920

116. *Clossiana selene selene* DENIS &

SCHIFFERMÜLLER 1775

Material examined: 3 specs., May 21, 1904; May 29, 1903; June 13, 1907, VW.

117. *Clossiana euphrosyne euphrosyne*

LINNAEUS 1758

Material examined: 3 specs., May 21, 1904; June 13, 1907; June 7, 1953, VW.

Genus *Issoria* HÜBNER [1819]

(syn. *Rathora* MOORE [1900])

118. *Issoria lathonia lathonia* LINNAEUS 1758

(syn. *Argynnis lathoria* LINNAEUS 1758)

Material examined: 2 specs., April, 1920 (non-collection day); May 3, 15, 1903, VW.

Genus *Melitaea* FABRICIUS 1807

(syn. *Schoenis* HÜBNER [1819]; *Cinlidia* HÜBNER [1819]; *Didymaeformis* VERITY 1950; *Mellicta* BILLBERG 1820, part)

- 119. *Melitaea cinxia cinxia*** LINNAEUS 1758
Material examined: 2 specs., July 3, 1903; June 12, 1904, VW.
- 120. *Melitaea phoebe phoebe*** DENIS & SCHIFFERMÜLLER 1775
Material examined: 2 specs., June 12, 1904; July 3, 1904, VW.
- 121. *Melitaea athalia athalia*** ROTTENBURG 1775
Material examined: 2 specs., May 21, 1904, VW; 3 specs., May 29, 1903, 1 spec., June 1, 1903, VW; 1 spec., June 3, 1907 VW; 2 specs., June 10, 1923 VW; 1 spec., June 12, 1904 VW; June 19, 1907 VW
- 122. *Melitaea didyma didyma*** ESPER [1779]
Material examined: 1 spec., July 26, 1904, VW.
Genus *Melanargia* MEIGEN [1828]
(syn. *Agapetes* BILLBERG 1820, non. REJECT 1956)
- 123. *Melanargia galathea scolis*** FRUHSTORFER 1917
Material examined: 1 spec., May 17, 1923; 3 specs., July 14, 1904, VW.
Genus *Pararge* HÜBNER [1819]
Subgenus *Pararge* HÜBNER 1819
- 124. *Pararge (Pararge) aegeria tircis*** BUTLER 1867
Material examined: 4 specs., April 1920 (non-collection day); May 12, 1904; May 21, 1904, VW.
Subgenus *Lasiommata* HUMPHREYS & WESTWOOD 1841
- 125. *Pararge (Lasiommata) megera megera*** LINNAEUS 1758
Material examined: 1 spec., May 21, 1904, VW.
Subgenus *Lopinga* MOORE [1895]
- 126. *Pararge (Lopinga) achine achine*** SCOPOLI 1763
Material examined: 2 specs., June 19, 1907, VW.
Genus *Erebia* DALMAN 1816
- 127. *Erebia aethiops aethiops*** ESPER 1777
Material examined: 3 specs., May 10, August 2, 1 spec., May 13, 1903, VW.
Genus *Maniola* SCHRANK 1801
(syn. *Epinephele* [HÜBNER 1819])
- 128. *Maniola jurtina jurtina*** LINNAEUS 1758
Material examined: 1 spec., June 17, 1923; 4 specs., July 9, 1907; July 14, 1903; May 15, 1903, VW.
Genus *Aphantopus* WALLENGREN 1853
- 129. *Aphantopus hyperanthus hyperanthus*** LINNAEUS, 1758
Material examined: 4 specs., July 9, 1907; July 14, 1904, VW.
Genus *Coenonympha* HÜBNER [1819]
(syn. *Chortobius* DUNNING & PICKARD 1858; *Sicca* VERITY 1953)
- 130. *Coenonympha pamphilus pamphilus*** LINNAEUS 1758
Material examined: 2 specs., May 12, 1904; May 29, 1903, VW.
- 131. *Coenonympha arcania arcania*** LINNAEUS 1761 (syn. *C. amyntas* PODA 1761) 3 specs., July 15, May 15, 1903; July 9, 19, 1907; 2 specs., May 14, 1904, VW.

- 132. *Coenonympha glycerion glycerion*** BORKHAUSEN 1788 (syn. *C. iphis* DENIS & SCHIFFERMÜLLER 1775, invalid homonim)
Material examined: 5 specs., June 24, 1938; July 16, 1948; June 10, 17, 1923; May 22, 1945; May 25, 1939; September 18, 1953, VW.

Family LYCAENIDAE

Subfamily Riodiniinae

Genus *Hameris* HÜBNER [1819]
(syn. *Nemeobius* STEPHENS 1827)

- 133. *Hameris lucina lucina*** LINNAEUS 1758
Material examined: 5 specs., April 1920 (no collection day); May 12, 1904 VW; July 26, 1904, VW.

Subfamily Theclinae

Genus *Thecla* FABRICIUS 1807
(syn. *Ruralis* TUTT [1906]; *Zephyrus* DALMAN 1816; *Quercusia* VERITY 1943; *Aurotis* KIRBY 1862, nec. DALMAN 1816)

- 134. *Thecla quercus quercus*** LINNAEUS 1758
Material examined: 1 spec., June 9, 1907; 1 spec., July 9, 1907; 2 specs., July 4, 1904; 2 specs., May 8, 1954, VW.
Genus *Nordmannia* TUTT [1907]
(syn. *Necovatia* VERITY 1951)

- 135. *Nordmannia acaciae nostras*** COURVOISIER 1913
Material examined: 1 spec., July 9, 1904, VW.
Genus *Strymonidia* TUTT 1908
- 136. *Strymonidia pruni*** LINNAEUS 1758
Material examined: 1 spec., July 9, 1904, VW.
- 137. *Strymonidia spini spini*** DENIS & SCHIFFERMÜLLER 1775
Material examined: 1 spec., June 10, 1923, VW.
Genus *Callophrys* BILLBERG 1820
- 138. *Callophrys rubi*** LINNAEUS 1758
Material examined: 1 spec., June 26, 1904, VW.

Subfamily Lycaeninae

Genus *Lycaena* FABRICIUS 1807
(syn. *Heodes* DALMAN 1816; *Chrysophanus* HÜBNER 1816, *Palaeochrysophanus* VERITY 1943;)

- 139. *Lycaena phlaeas*** LINNAEUS 1761
Material examined: 2 specs., July 14, 1903; May 21, 1904, VW.
- 140. *Lycaena virgaureae virgaureae*** LINNAEUS 1758
Material examined: 1 spec., June 10, 1923, VW.
- 141. *Lycaena tityrus*** PODA 1761
Material examined: 3 specs., May 21, 1903, 1 spec., May 1, 1903, VW.

Subfamily Plebejinae

Genus *Polyommatus* LATREILLE 1804

- 142. *Polyommatus icarus icarus*** ROTTEMBURG 1775
Material examined: 1 spec., May 21, 1904; 2 specs., June 19, 1907, VW.

CONCLUSIONS

Macrolepidoptera data processing and their centralization in the form of a systematic list of species collected in the forest perimeter was the purpose of this paper. This paper updates the state of knowledge of this group of insects around Sibiu; it is thus aimed at achieving a "Red List" of the endangered and extinct species in the forest area of Sibiu Grove. It also, adds new data on these Macrolepidoptera species around Sibiu.

Most species of the Viktor Weindell's collection were gathered from the forest area and they belong to the families Noctuidae (178) Geometridae (170), Nymphalidae (38) and Satyridae (22). The largest number of specimens belonging to the families: Geometridae (773), Noctuidae (634), Nymphalidae (420), Lycaenidae (393) Satyridae (359), Pieridae (307) Hesperidae (117), Arctiidae (117).

The conservation of diversity of the Sibiu Forest Grove butterflies should take into account the requirements of priority butterfly species, but it is impossible to propose uniform management for all of them. However, although ecological succession is the main problem, except for some cases where quick action is needed, all intensifications should be done very carefully. Single mowing of the whole habitat with heavy machines in the sensitive period of their life cycle can be much more destructive than abandonment for years.

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