

A short preliminary report of the monitoring of the Lepidoptera fauna of the Jabal Moussa biosphere area and adjacent areas in Jaakko Kullberg

The research area and methods

We monitored the Lepidoptera fauna of Jabal Moussa (see the map) and its neighboring valleys during 24.5. – 9.6.2012. During expedition the weather was rather tricky during nights and in the beginning of the expedition temperature minimum was often less than +10 degrees in the valley sides and we did not have warmer nights (+20C degrees) at all. Therefore the size of the catch was very variable – cold nights only some dozens of specimens came to light and during warmer nights thousands of specimens.

As the weather greatly affects to the insect flight, we saw more convenient and efficient to move also secondary places in the hope of more favorable weather conditions by using car, than risk the night by climbing up the mountain with heavy equipment and thus making us vulnerable to changing weather. We several times changed our plans just before dark accordingly to changing weather. Choosing opposite mountain slope or top instead of Jabal Moussa can be seen acceptable as it is fact that most of the species are common between neighboring mountain slopes and that moths are flying up and down between the valleys and mountain tops according to weather. In this state of the study we are only in the starting point of getting to know the fauna of the research area and this way we also spared valuable time for preparing the materials instead of walking.

Description of the fauna

Generally the fauna of the research area was living a typical early summer phase as one could expect – almost all overwintering and early spring species had ended their flight. The general species composition was quite “European” consisting of many widespread euroasiatic and westpaleartic species – the high proportion of these can be seen especially in butterflies (Papilionoidea) and Noctuid moths. Mediterranean species were the second commonest group. The highest proportion of Levant endemics can be seen in the less movable moths as several microlepidoptera groups and Geometrid moths. This is also due to their more close relationship with certain local plants.

Monitoring of other Lebanese areas in lower altitudes in Batroun and Bechmezzine revealed not surprisingly that many species which were occurring in Jabal Moussa in the late August during our earlier trip in 2010 were already in the flight at sea level. Understandably these species fly in higher altitudes later in the summer as a sole generation or as two generations in contrast to low altitudes where two or even several generations can be annually observed. However it was clearly so that the majority of larger moths have ended their flight in the lower levels (excluding the numerous subtropical pest species which were still in flight) due the drought when many species were in the flight in Jabal Moussa. It came clear that there will be a lot more species in the flight later on in the July and in September the autumn species start to fly. In contrast to Bcharre and its dry high altitude mountains above tree line, Jabal Moussa understandably do not have the real mountain top fauna, even some mountain species were observed in low numbers.

This far I have determined 95% of the so called Macrolepidoptera species consisting of about 2500 specimens belonging 171 species of the superfamilies Papilionoidea, Lasiocampoidea, Bombycoidea, Noctuoidea, Geometroidea, Drepanoidea. More species will be added to the included list as the whole material is labeled and more careful sorting is possible. The material includes at least some species new to the Lebanese fauna.



Light trapping localities in the Jabal Moussa and its vicinity in 24.5.-9.6.2012

Some video clips of stone martens, porcupine and striped hyena can be seen in a youtube clip here:

<http://www.youtube.com/watch?v=BkEONUzUeLw&feature=youtu.be>

The list of the determined species

Jabal Moussa 24.5.-9.6.2012

Sphingidae	6	6
<i>Marumba quercus</i> (DENIS & SCHIFFERMÜLLER, 1775)		
<i>Macroglossum stellatarum</i> (LINNAEUS, 1758)		
<i>Sphingoneopsis gorgoniades</i> (HÜBNER, [1819])		
<i>Hyles nicaea</i> (PRUNNER, 1798)		
<i>Deilephila porcellus</i> (LINNAEUS, 1758)		
Lasiocampidae	1	7
<i>Phyllodesma tremulifolia</i> (HÜBNER, 1810)		
Saturniidae	1	8
<i>Saturnia pyri</i> ([DENIS & SCHIFFERMÜLLER], 1775)		
Papilionidae	1	12
<i>Papilio machaon</i> LINNAEUS, 1758		
Hesperiidae	3	11
<i>Spialia orbifer</i> (HÜBNER, 1823)		
<i>Thymelicus sylvestris</i> (PODA, 1761)		
<i>Ochlodes sylvanus</i> (ESPER, 1777)		
Pieridae	6	18
<i>Pieris brassicae</i> (LINNAEUS, 1758)		
<i>Pieris rapae</i> (LINNAEUS, 1758)		
<i>Pontia daplidice</i> (LINNAEUS, 1758)		
<i>Colias croceus</i> (GEOFFROY in FOURCROY, 1785)		
<i>Gonepteryx farinosa</i> (ZELLER, 1847)		
<i>Gonepteryx cleopatra</i> (LINNAEUS, 1767)		
Lycaenidae	4	22
<i>Callophrys rubi</i> (LINNAEUS, 1758)		
<i>Satyrium ilicis</i> (ESPER, 1779)		
<i>Lampides boeticus</i> (LINNAEUS, 1767)		
<i>Celastrina argiolus</i> (LINNAEUS, 1758)		
Nymphalidae	9	31
<i>Pararge aegeria</i> (LINNAEUS, 1758)		

Lasiommata megera (LINNAEUS, 1767)
Coenonympha pamphilus (LINNAEUS, 1758)
Aphantopus hyperantus (LINNAEUS, 1758)
Maniola telmessia (ZELLER, 1847)
Argynnis pandora ([DENIS & SCHIFFERMÜLLER], 1775)
Neptis rivularis (SCOPOLI, 1763)
Vanessa cardui (LINNAEUS, 1758)
Melitaea didyma (ESPER, 1778)

Drepanidae 2 33

Watsonalla binaria (HUFNAGEL, 1767)
Cilix glaucata (SCOPOLI, 1763)

Geometridae 49 82

Chiasmia clathrata (LINNAEUS, 1758)
Isturgia berytaria (STAUDINGER, 1892)
Gnopharmia stevenaria (BOISDUVAL, 1840)
Pseudopanthera syriacata GUENÉE, 1857
Ennomos freidbergi HAUSMANN, 1997
Nychiodes palaestinensis F.WAGNER, 1919
Peribatodes rhomboidaria ([DENIS & SCHIFFERMÜLLER], 1775)
Peribatodes umbraria (HÜBNER, [1809])
Peribatodes correptaria (ZELLER, 1847)
Hypomecis punctinalis (SCOPOLI, 1763)
Ascotis selenaria ([DENIS & SCHIFFERMÜLLER], 1775)
Gnophos sartata TREITSCHKE, 1827
Charissa libanotica (Wehrli 1931)
Charissa pfeifferi (Wehrli, 1926)
Charissa subtaurica (WEHRLI, 1932)
Charissa adjectaria (STAUDINGER, 1897)
Dyscia innocentaria (CHRISTOPH, 1885)
Orthostixis cribraria (HÜBNER, [1799])
Aplasta ononaria (FUESSLY, 1783)
Pseudoterpna coronillaria (HÜBNER, [1817])
Proteuchloris neriaría (HERRICH-SCHÄFFER, 1852)
Culpinia prouti (THIERRY-MIEG, 1913)
Phaiogramma etruscaria (ZELLER, 1849)
Idaea filicata (HÜBNER, [1799])
Idaea politaria (HÜBNER, [1799])
Idaea trigeminata (HAWORTH, 1809)
Idaea distinctaria (BOISDUVAL, 1840)
Idaea camparia (HERRICH-SCHÄFFER, 1852)
Idaea ostrinaria (HÜBNER, [1813])

Idaea degeneraria (HÜBNER, [1799])
Scopula submutata (TREITSCHKE, 1828)
Scopula marginepunctata (GOEZE, 1781)
Scopula luridata (ZELLER, 1847)
Scopula imitaria (HÜBNER, [1799])
Rhodostrophia discopunctata (AMSEL, 1935)
Cyclophora puppillaria (HÜBNER, [1799])
Rhometra sacraria (LINNAEUS, 1767)
Xanthorhoe oxybiata (MILLIÈRE, 1872)
Catarhoe permixtaria (HERRICH-SCHÄFFER, 1852)
Coenotephria ablutaria (BOISDUVAL, 1840)
Gymnoscelis rufifasciata (HAWORTH, 1809)
Eupithecia schiefereri BOHATSCH, 1893
Eupithecia quercetica PROUT, 1938
Eupithecia spissilineata (METZNER, 1846)
Eupithecia centaureata ([DENIS & SCHIFFERMÜLLER], 1775)
Eupithecia gueneata MILLIÈRE, 1862
Eupithecia gratiosata HERRICH-SCHÄFFER, 1861
Eupithecia vulgata (HAWORTH, 1809) ???
Oulobophora externata (HERRICH-SCHÄFFER, 1848)

Notodontidae

4

86

Drymonia querna ([DENIS & SCHIFFERMÜLLER], 1775)
Stauropus fagi (LINNAEUS, 1758)
Harpyia milhauseri (FABRICIUS, 1775)
Spatialia argentina ([DENIS & SCHIFFERMÜLLER], 1775)

Nolidae

4

90

Meganola togatulalis (HÜBNER, [1796])
Earias syriacana BARTEL, 1903
Bena bicolorana (FUESLY, 1775)
Nycteola columbana (TURNER, 1925)

Erebidae

25

115

Hypena palpalis (HÜBNER, [1796])
Pechipogo plumigeralis HÜBNER, [1825]
Zekelita antiqualis (HÜBNER, [1809])
Catocala eutychea TREITSCHKE, 1835
Catocala separata FREYER, 1848
Dysgonia algira (LINNAEUS, 1767)
Drasteria cailino (LEFÈBVRE, 1827)
Catephia alchymista ([DENIS & SCHIFFERMÜLLER], 1775)
Aedia funesta (ESPER, 1786)
Lygephila cracca ([DENIS & SCHIFFERMÜLLER], 1775)

Autophila ligaminosa (EVERSMANN, 1851)
Parascotia detersa (STAUDINGER, 1892)
Plecoptera inquinata (LEDERER, 1857)
Raparna conicephala (STAUDINGER, 1870)
Zethes insularis RAMBUR, 1833
Eublemma ostrina (HÜBNER, [1803-1808])
Eublemma parva (HÜBNER, [1803-1808])
Eublemma polygramma (DUPONCHEL, 1842)
Lymantria dispar (LINNAEUS, 1758)
Lymantria lapidicola (HERRICH-SCHÄFFER, 1851)
Parocneria terebinthi (FREYER, 1838)
Eilema muscula (STAUDINGER, 1899)
Amata mestratii (BUGNION, 1837)
Diaphora mendica (CLERCK, 1759)
Arctia villica (LINNAEUS, 1758)

Noctuidae

56

171

Acronicta aceris (LINNAEUS, 1758) ssp. *judea* STAUDINGER, 1901
Acronicta psi (LINNAEUS, 1758)
Acronicta rumicis (LINNAEUS, 1758) ssp. *pallida* ROTHSCHILD, 1920
Cryphia labecula (LEDERER, 1855)
Megalodes eximia (FREYER, 1845)
Tyta luctuosa (DENIS & SCHIFFERMÜLLER, 1775)
Euchalcia augusta (Staudinger, [1892])
Macdunnoughia confusa (STEPHENS, 1850)
Autographa gamma (LINNAEUS, 1758)
Cornutiplusia circumflexa (LINNAEUS, 1767)
Trichoplusia ni (HÜBNER, [1800-1803])
Chrysodeixis chalcites (ESPER, 1789)
Cucullia anceps STAUDINGER, 1882 ?
Cucullia barthae BOURSIN, 1933 ?
Calophasia platyptera (ESPER, 1788)
Amphipyra effusa BOISDUVAL, 1828
Philareta treitschkei (FRIVALDSZKY, 1835)
Heliothis nubigera HERRICH-SCHÄFFER, 1851
Heliothis peltigera ([DENIS & SCHIFFERMÜLLER], 1775)
Helicoverpa armigera (HÜBNER, [1808])
Phlogophora meticulosa (LINNAEUS, 1758)
Callopietria latreillei (DUPONCHEL, 1827)
Chloantha hyperici ([DENIS & SCHIFFERMÜLLER], 1775)
Apamea syriaca (OSTHELDER, 1933)
Apamea polyglypha (STAUDINGER, 1892)
Apamea anceps ([DENIS & SCHIFFERMÜLLER], 1775)
Oligia grisescens (HEYDEMANN, 1932)

Hoplodrina ambigua ([DENIS & SCHIFFERMÜLLER], 1775)
Spodoptera exigua (HÜBNER, [1803-1808])
Anarta mendax (STAUDINGER, 1879)
Lacanobia oleracea (LINNAEUS, 1758)
Hecatera bicolorata (HUFNAGEL, 1766)
Hecatera weissi (DRAUDT, 1934) ssp. *levantina* HACKER & ZILLI, 2009
Hecatera dysodea (DENIS & SCHIFFERMÜLLER, 1775)
Hadena capsincola (DENIS & SCHIFFERMÜLLER, 1775)
Hadena magnolii (BOISDUVAL, 1829)
Hadena compta (DENIS & SCHIFFERMÜLLER, 1775)
Hadena adriana (SCHAWERDA, 1921)
Hadena albimacula (BORKHAUSEN, 1792)
Hadena perplexa (DENIS & SCHIFFERMÜLLER, 1775)
Mythimna vitellina (HÜBNER, 1808)
Mythimna languida (WALKER, 1858)
Mythimna unipuncta (HAWORTH, 1809)
Mythimna sicula (TREITSCHKE, 1835) f. *sicula*
Mythimna l-album (LINNAEUS, 1767)
Mythimna riparia (RAMBUR, 1829)
Leucania loreyi (DUPONCHEL, 1827)
Agrotis segetum (DENIS & SCHIFFERMÜLLER, 1775)
Agrotis puta (HÜBNER, 1803)
Agrotis exclamationis (LINNAEUS, 1758)
Agrotis ipsilon (HUFNAGEL, 1766)
Peridroma saucia (HÜBNER, 1808)
Standfussiana defessa (LEDERER, 1858)
Ochropleura plecta (LINNAEUS, 1761)
Ochropleura leucogaster (FREYER, 1831)
Noctua pronuba LINNAEUS, 1758
Noctua comes HÜBNER, 1813