

A Faunistic Study on *Papilionoidea* and *Hesperioidea* (Lepidoptera) of Murat Mountain in Banaz, UŞAK Province, Turkey

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Abstract.- This study was carried out in Murat Mountain located in Banaz district (Uşak, Western Turkey), during 2000-2009 in order to collect data on Papilionoidea and Hesperioidea species, their distribution and current status. Butterflies (756) were caught with sweep nets from 28 localities during the field work of which 113 species and subspecies belonging to 7 families and 2 superfamilies were identified; 87 species were identified for the first time for Lepidoptera fauna of Uşak province and 103 species were identified for the first time for Murat Mountain (Banaz) fauna.

Key words: Lepidoptera, Papilionoidea, Hesperioidea, Murat Mountain, Banaz.

INTRODUCTION

The study area (Murat mountain) is located at north of Banaz district in Uşak province (Western Turkey). Uşak has a very large research potential because of divers ecosystem in both forest and agricultural lands. Having different ecosystems provide richness in habitat types for animals and plants, which may increase the diversity of living organisms. On the other hand, the continuing illegal use of forests and incorrect land use practices threaten the biological diversity in Uşak. Therefore, detailed studies should be carried out to determine the biological diversity of Uşak province.

Although Lepidoptera is one of the largest orders among insects in terms of the number of species, studies carried out in Turkey to determine the fauna and distribution of Lepidoptera are insufficient. Even though there are many studies on the Lepidoptera fauna of Turkey in general (Carbonel, 1998; Hüseyinoğlu, 2000; Koçak and Kemal, 2006, 2007; Lattin, 1950; Schurian and Rose, 1991; Schwingenschuss, 1938, 1939; Verity, 1935, 1937, 1938), specific study investigating the Lepidoptera of Uşak province is lacking. Three hundred and eighty butterflies species have been determined in Turkey so far (Karaçetin and Welch, 2011). According to Koçak (1982), Hesselbarth *et al.* (1995) and Koçak and Kemal (2008, 2009),

records from the province of Uşak indicate only about 26 species of butterflies. In this study three species of family Papilionidae, two of Pieridae, one of Argynnidae, seven of Satyridae, eleven of Lycaenidae and two of Hesperidae have been recorded.

The objective of this study was to investigate the lepidoptera fauna of Murat mountain of Uşak province and to determine the distribution of lepidopteran species.

MATERIALS AND METHODS

This study was conducted in the months of May, July and August in 28 different localities and habitat types between 1050-1750 m in Murat Mountain (Banaz) from Uşak province during 2000-2009. Specimens were collected using a sweep net. Collected specimens were killed in killing jars with ethyl acetate. During the collection, the collection date, name of the locality and altitude were noted on a piece of envelope for every specimen. Each specimen was then put into this envelope and all materials were brought to the laboratory for preparation and identification. All the butterfly specimens were pinned with wings spread, dried, and put into collection boxes. For identification of specimens, help was taken from Hesselbarth *et al.* (1995) and Tolman and Levington (1997).

The specimens were collected from 28 stations chronologically listed below Çamyuva: Kestane Hill (1250m, 01.07.2000), Çamyuva: Gökkaya (1250m, 01.07.2000), Kurudere (1700m, 01.07.2000), Kızılhisar: Dam N. (1100m,

09.07.2000), Kızılhisar: Üzeyir Plateau (1200m, 09.07.2000), Kızılpınar Hill: Mıstık Location, 1350m, 09.07.2000), Bahadır: Acemoğlu Valley 1150m, 16.07.2000), Hallaçlar: Kuma Valley (1300-1400m, 16.07.2000), Hallaçlar: Elmacıoluk (1500m, 16.07.2000), Bahadır: Baklan Plateau, Tepedelen (1800m, 16.07.2000), Kızılhisar: Üzeyir Plateau (1200m, 19.07.2000), Hallaçlar: Elmacıoluk (1500m, 20.07.2000), Bahadır: Beşoluk, Ercüvan Plateau (1500m, 30.07.2000), Hallaçlar: Elmacıoluk (1500m, 30.07.2000), Bahadır: Baklan Plateau Tepedelen (1750m, 30.07.2000), Hallaçlar: Çakmak Location (1350m, 06.08.2000), Hallaçlar: Elmacıoluk (1500m, 06.08.2000), Bahadır: Beşoluk, Ercüvan Plateau (1500m, 06.08.2000), Bahadır: Baklan Plateau, Tepedelen (1750m, 06.08.2000), Kızılhisar: Dam N. (1050m, 20.08.2000), Bahadır N.: (1200m, 20.08.2000), Kızılhisar: Üzeyir Plateau (1250m, 20.08.2000), Kızılhisar: Cevizli Plateau (1450m, 20.08.2000), Bahadır: Gökkaya Valley (1000m, 15.05.2009), Bahadır: Gökkaya Plateau (1100m, 15.05.2009), Bahadır N.: Gölçük (1200m, 15.05.2009), Kızılhisar: Dam N. (1100m, 16.05.2009) and Kızılhisar: Üzeyir Plateau (1250m, 16.05.2009).

RESULTS

A total of 113 species and subspecies belonging to 7 families and 2 superfamilies of the order Lepidoptera were identified and are listed below. Species and subspecies are given under the superfamily and family to which they belong. Valid scientific name is given for each taxon. Faunistic records from previous studies carried out on the same area are also cited.

Superfamily: *Papilionoidea* Latreille (1802)

Family: *Papilionidae* Latreille (1802)

1. *Papilio alexanor eitschbergeri* Bollino & Sala, 1992
Material examined: 2.
2. *Iphiclides podalirius podalirius* (Linnaeus, 1758)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 285-290 "Uşak: 8km. S Banaz, 950m".

Material examined: 4, 5, 14, 15, 17, 24.

3. *Zerynthia (Allancastris) deyrollei* (Oberthür, 1869)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 251-254 "Uşak: 20km E Uşak, 750m".
Material examined: 2, 24, 25, 26, 28.
4. *Archon apollinus apollinus* (Herbst, 1789)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 260-263 "Uşak, 920m.; 20km. E Uşak, 950m.; Banaz".
Material examined: 24, 25, 26.
5. *Parnassius (Driopa) mnemosyne* (Linnaeus, 1758)
Material examined: 3.

Family: *Pieridae* Duponchel (1835)
6. *Leptidea sinapis sinapis* (Linnaeus, 1758)
Material examined: 2, 3, 4, 5, 6, 8, 11, 14, 15, 16, 27.
7. *Leptidea duponcheli lorkovici* (Pfeiffer, 1932)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 309-312 "Uşak: 6km. N Banaz, 950m".
Material examined: 24, 25, 27.
8. *Anthocharis cardamines phoenissa* Kalchberg, 1805
Material examined: 24, 25, 27.
9. *Euchloe ausonia taurica* (Röber, 1907)
Material examined: 24, 28.
10. *Aporia crataegi crataegi* (Linnaeus, 1758)
Material examined: 2, 1, 3, 5, 6, 8, 11.
11. *Pieris brassicae brassicae* (Linnaeus, 1758)
Material examined: 3, 4, 5, 12, 15, 17.
12. *Pieris (Artogeia) rapae rapae* (Linnaeus, 1758)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 401-408 "Uşak: 8km. S Banaz, 950m".

- Material examined: 2, 3, 4, 5, 6, 9, 11, 15, 19, 24, 25, 26, 27, 28.
13. *Pieris (Artogeia) ergane detersa* Verity, (1908)
Material examined: 3, 10, 15, 19.
14. *Pieris (Napi) napi pseudorapae* Verity, (1908)
Material examined: 2, 24, 28.
15. *Pontia edusa* (Fabricius, 1777)
Material examined: 2, 3, 4, 5, 6, 11, 13, 15, 21, 23.
16. *Colias (Eriocolias) crocea* (Fourcroy, 1785)
Material examined: 2, 1, 3, 4, 5, 6, 8, 10, 13, 14, 15, 16, 17, 18, 20, 22, 23, 24, 25.
17. *Colias sareptensis bergeri* Reissinger, 1989
Material examined: 2, 1, 3, 5, 6, 8, 9, 10, 11, 13, 14, 15, 17, 18, 19, 22, 23, 28.
18. *Gonepteryx rhamni transiens* Verity, 1913
Material examined: 10, 13, 25, 26.
19. *Gonepteryx farinosa turcirana* De Freina, 1983
Material examined: 3.
- Family: *Libytheidae* Boisduval, 1833
20. *Libythea celtis* (Laicharting, 1782)
Material examined: 3, 4, 5.
- Family: *Argynnidae* Duponchel (1835)
21. *Limenitis reducta herculeana* Stichel, (1908)
Material examined: 2, 4, 5, 8, 11, 16, 20.
22. *Vanessa atalanta atalanta* (Linnaeus, 1758)
Material examined: 14, 15, 19.
23. *Vanessa cardui cardui* (Linnaeus, 1758)
Material examined: 3, 6, 7, 8, 9, 13, 14, 17, 18, 19, 20, 24, 26.
24. *Aglais urticae turcica* (Staudinger, 1871)
Material examined: 3, 14, 18.
25. *Polygonia c-album c-album* (Linnaeus, 1758)
Material examined: 8.
26. *Polygonia egea* (Cramer, (1775)
Material examined: 19.
27. *Nymphalis antiopa antiopa* (Linnaeus, 1758)
Material examined: 3.
28. *Melitaea punica telona* Fruhstorfer, 1908
Material examined: 24.
29. *Melitaea cinxia clarissa* Staudinger, 1901
Material examined: 2.
30. *Melitaea (Didymaeformis) fascelis* (Esper, 1783)
Material examined: 3.
31. *Melitaea (Didymaeformis) didyma* (Esper, 1778)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 1047-1054 "Uşak: 6km. N Banaz, 950m".
Material examined: 2, 5, 6, 8, 11, 15, 16, 21, 22, 23.
32. *Mellicta athalia* (Rottemburg, 1775)
Material examined: 2, 3, 8, 9, 10, 15.
33. *Argynnis (Pandoriana) pandora pandora* (Denis & Schiffermüller), 1775)
Material examined: 4, 5, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 22.
34. *Argynnis (Fabriciana) adippe* (Denis & Schiffermüller), 1775)
Material examined: 14, 15, 19.
35. *Argynnis (Argynnis) paphia* (Linnaeus, 1758)
Material examined: 5, 8, 9, 17.
36. *Argynnis (Speyeria) aglaja ottomana* (Röber, 1896)
Material examined: 1, 4, 6, 8, 9, 10, 14, 15, 17, 19.
37. *Argynnis (Fabriciana) niobe orientalis* Alpheraky, 1881
Material examined: 2, 3, 6, 15.

38. *Issoria lathonia lathonia* (Linnaeus, 1758)
Material examined: 2, 3, 4, 5, 6, 8, 9, 11, 13, 14, 15, 16, 18, 17, 22, 24, 25, 26, 27, 28.
Türkei: 879-881 “Uşak: 8km. S Banaz, 950m. 6km. N Banaz, 950m.”.
Material examined: 2, 1, 4, 6.
39. *Brenthis daphne daphne* (Bergstasser, 1780)
Material examined: 2, 3, 5, 6, 8.
40. *Brenthis hecate transcaucasica* Wnukowsky, 1929
Material examined: 6.
Family: *Satyridae* Boisduval, 1833
41. *Kirinia roxelana roxelana* (Cramer, 1777)
Material examined: 2.
42. *Lasiommata megera transcaspica* (Staudinger, 1767)
Material examined: 24, 27.
43. *Lasiommata maera* (Linnaeus, 1758)
Material examined: 5, 10, 20, 22.
44. *Coenonympha arcania* (Linnaeus, 1761)
Material examined: 8, 9.
45. *Coenonympha pamphilus* (Linnaeus, 1758)
Material examined: 2, 21, 22, 24, 25, 26, 27, 28.
46. *Maniola jurtina phormia* (Fruhstorfer, 1909)
Material examined: 2, 4, 5, 6, 7, 9, 11, 15, 16, 20, 21, 22.
47. *Maniola telmessia* (Zeller, 1847)
Material examined: 2, 4, 6, 8, 17, 21.
48. *Hyponephele lycaon collina* (Röber, 1897)
Material examined: 9, 10.
49. *Hyponephele lupina intermedia* (Staudinger, 1886)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 844-848 “Uşak: 6km. N Banaz, 950m.”.
Material examined: 2, 15, 20.
50. *Melanargia larissa noacki* Wagener, 1983
Hesselbarth, et al., 1995, Die Tagfalter der
51. *Melanargia galathea satnia* Fruhstorfer, 1917
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 866-868 “Uşak: 8km. S Banaz, 950m.”.
Material examined: 6, 9, 12, 12.
52. *Hipparchia (Parahipparchia) pellucida* (Stauder, 1924)
Material examined: 2, 4, 5, 11.
53. *Hipparchia syriaca* (Staudinger, 1871)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 896-900 “Uşak: Bozköy, 1000m.”.
Material examined: 18, 20, 22.
54. *Hipparchia (Parahipparchia) aristaeus senthes* (Fruhstorfer, 1908)
Material examined: 2, 3, 8, 18, 21.
55. *Hipparchia statilinus* (Hufnagel, 1766)
Material examined: 20, 22.
56. *Hipparchia (Neohipparchia) fatua fatua* Freyer, (1844)
Material examined: 20.
57. *Brintesia circe circe* (Fabricius, 1775)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 920-922 “Uşak: 6km. N Banaz, 950m. 8km. S Banaz, 950m.”.
Material examined: 2, 4, 5, 6, 11, 14, 17, 23.
58. *Chazara briseis meridionalis* (Staudinger, 1886)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 922-931 “Uşak: 8km. S Banaz, 950m.”.
Material examined: 2, 5, 9, 10, 11, 13, 14, 15, 17, 18, 19, 20, 22.
59. *Pseudochazara mniszechii mniszechii* Herrich-Schäffer, (1851)
Material examined: 13, 23.

60. *Pseudochazara anthelea anthelea* (Hübner, (1824)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 961-965 “Uşak: Murat Dağı Südseite: 4km S Ayrançı, 1180m; Bozköy 1000m.; 6km. N Banaz, 950m.; 8km. S Banaz, 950m.”.
Material examined: 14, 15, 18, 19, 20.
- Family: Lycaenidae Leach, (1815)
61. *Lycaena phlaeas phlaeas* (Linnaeus, 1761)
Material examined: 2, 3, 5, 10, 11, 13, 15, 17, 18.
62. *Heodes (Loweia) tityrus tityrus* (Poda, 1761)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 475-478 “Uşak: 12km. Uşak, 800m”.
Material examined: 2, 3, 13, 15, 18, 27.
63. *Heodes virgaureae virgaureae* (Linnaeus, 1758)
Material examined: 17.
64. *Heodes (Alciphronia) alciphron melibaeus* (Staudinger, 1878)
Material examined: 2, 3, 10, 14, 15.
65. *Thersamonia thersamon* (Esper, (1784)
Material examined: 3, 10, 19.
66. *Quercusia quercus quercus* (Linnaeus, 1758)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 503-504 “Uşak: 8km. S Banaz, 950m”.
Material examined: 3.
67. *Callophrys rubi rubi* (Linnaeus, 1758)
Material examined: 2, 24.
68. *Satyrrium (Nordmannia) ilicis ilicis* (Esper, (1779)
Material examined: 2, 4, 6, 8, 9.
69. *Satyrrium (Nordmannia) acaciae* (Fabricius, 1787)
Material examined: 2, 6.
70. *Tomares nogelii nogelii* (Herrich-Schäffer, (1851)
Material examined: 2, 6.
71. *Lampides boeticus boeticus* (Linnaeus, 1767)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 538-541 “Uşak: 8km. S Banaz, 950m”.
Material examined: 6, 8, 13, 14, 15, 16, 17, 23.
72. *Cupido minimus minimus* (Fuessly, 1775)
Material examined: 6.
73. *Cupido osiris majuspunctata* Verity, 1934
Material examined: 8.
74. *Celastrina argiolus argiolus* (Linnaeus, 1758)
Material examined: 2, 3, 9.
75. *Pseudophilotes vicrama schiffermuelleri* (Hemming, 1929)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 561-563 “Uşak: 8km. S Banaz, 950m”.
Material examined: 2.
76. *Glaucopsyche (Apelles) astraes astraes* (Freyer, (1851)
Material examined: 24, 27.
77. *Glaucopsyche alexis alexis* (Poda, 1761)
Material examined: 24, 25, 27, 28.
78. *Iolana iolas lessei* (Bernardi, 1964)
Material examined: 2.
79. *Turanana endymion endymion* (Freyer, (1850)
Material examined: 3, 10, 15.
80. *Plebeius (Plebejidea) loewii loewii* (Zeller, 1847)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 613-616 “Uşak: 8km. S Banaz, 950m.”
Material examined: 3.

81. *Plebejus (Plebejides) sephirus sephirus* (Frivaldszky, 1835)
Material examined: 2, 3, 4, 6, 8, 23.
82. *Plebejus argus aegidion* (Meisner, 1818)
Material examined: 2, 3, 4, 5, 6, 8, 10, 11, 13, 14, 22, 23.
83. *Plebejus (Lycaeides) idas baldur* (Hemming, 1934)
Material examined: 2, 10, 23.
84. *Plebeius (Kretania) euryпилus euryпилus* (Freyer, 1851)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 617-620 "Uşak: 8km. S Banaz, 950m".
Material examined: 3.
85. *Polyommatus semiargus bellis* (Freyer, 1842)
Material examined: 16.
86. *Polyommatus (Aricia) agestis agestis* (Denis & Schiffermüller, 1775)
Material examined: 2, 3, 6, 8, 11, 14, 15, 23, 24, 25, 27, 28.
87. *Polyommatus (Aricia) anteros anteros* (Freyer, 1838)
Material examined: 3.
88. *Polyommatus (Plebicula) amandus amandus* (Schneider, 1792)
Material examined: 2, 16.
89. *Polyommatus (Thersitesia) thersites thersites* (Canterer, 1835)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 662-665 "Uşak: 8km. S Banaz, 950m".
Material examined: 2, 3, 6, 10, 13, 14.
90. *Polyommatus (Sublysandra) cornelius cornelius* (Freyer, 1850)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 668-672 "Uşak: 6km. N Banaz, 950m.; 8km. S. Banaz, 950m.".
Material examined: 3, 4, 5, 6, 8, 10, 11, 22.
91. *Polyommatus icarus* (Rottemburg, 1775)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 676-684 "Uşak: 6km. N Banaz, 950m.; 4km. S Ayrançı, Murat Dağı Südseite, 1180m".
Material examined: 2, 3, 4, 5, 6, 8, 9, 11, 14, 15, 16, 17, 19, 21, 22, 23, 24, 25, 26, 27, 28.
92. *Polyommatus (Meleageria) daphnis versicolor* (Heyne, 1895)
Material examined: 4, 6, 8, 11, 14, 15, 16, 17, 19, 23.
93. *Polyommatus (Lysandra) bellargus bellargus* (Rottemburg, 1775)
Material examined: 2, 3, 10, 11, 13, 16, 17, 21, 22, 23.
94. *Polyommatus (Lysandra) ossmar ossmar* (Gerhard, 1851)
Material examined: 5, 8, 14, 16, 17, 22, 23.
95. *Polyommatus (Admetusia) admetus anatoliensis* (Forster, 1960)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 713-715 "Uşak: Bozköy, 1000m. 8km. S Banaz, 950m.".
Material examined: 2, 4, 6.
96. *Polyommatus (Admetusia) ripartii paralcestis* (Forster, 1960)
Material examined: 4, 19, 23.
97. *Polyommatus (Agrodiaetus) poseidon poseidon* (Herrich-Schäffer, 1851)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 726-728 "Uşak: 8km. S Banaz, 950m.".
Material examined: 10, 15.
98. *Polyommatus (Agrodiaetus) actis* (Herrich-Schäffer, 1851)
Material examined: 3.
99. *Polyommatus (Agrodiaetus) actis actis* (Herrich-Schäffer, 1851)
Material examined: 10, 15.

- Superfamily: *Hesperioidea* Latreille (1809)
Family: *Hesperiidae* Latreille (1809)
100. *Thymelicus lineolus lineolus* (Ochsenheimer, 1808)
Material examined: 2, 4, 6, 8, 10.
101. *Thymelicus sylvestris syriacus* (Tutt, (1905)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 167-171 "Uşak: 4km.S. Ayrancı, 1180m."
Material examined: 2, 4, 5, 6, 8, 9, 10, 11, 17.
102. *Ochlodes venatus faunus* (Turati, 1905)
Material examined: 2, 4, 6, 8, 9, 10, 11, 14, 15, 17.
103. *Erynnis tages tages* (Linnaeus, 1758)
Material examined: 24, 27.
104. *Carcharodus alceae alceae* (Esper, (1780)
Material examined: 3.
105. *Carcharodus* (*Lavatheria*) *lavatherae tauricus* (Reverdin, 1915)
Material examined: 22.
106. *Carcharodus* (*Reverdinus*) *orientalis orientalis* (Reverdin, 1913)
Material examined: 10, 15.
107. *Spialia phlomidis* (Herrich-Schäffer, (1845)
Material examined: 15.
108. *Spialia* (*Neospialia*) *orbifer* (Hübner, (1823)
Hesselbarth, et al., 1995, Die Tagfalter der Türkei: 206-210 "Uşak: 4km. S. Ayrancı, 1180m".
Material examined: 2, 6, 10, 11, 15, 23.
109. *Spialia orbifer hilaris* (Staudinger, 1901)
Material examined: 3, 6.
110. *Muschampia proteides proteides* (Wagner, 1929)
Material examined: 18.
111. *Muschampia tessellum nomas* (Lederer, 1855)
Material examined: 3.
112. *Pyrgus cinarae cinarae* (Rambur, (1839)
Material examined: 4, 6.
113. *Prygus melotis ponticus* (Reverdin, 1914)
Material examined: 24.

DISCUSSION

The Lepidoptera fauna of Turkey has been studied by several scientists. According to their reports, the Lepidoptera fauna of Turkey consists of more than 4770 species (4777 described species) (Koçak and Kemal, 2009). This is the first study to determine the Lepidoptera fauna of Murat Mountain (Uşak province). In this study 113 lepidopteran species of 7 families in Uşak were determined. These families and number of species are: *Papilionidae* (5); *Pieridae* (14); *Libytheidae* (1); *Argynnidae* (20); *Satyridae* (20); *Lycaenidae* (39) and *Hesperiidae* (14). All of these species were reported previously from different parts of Turkey. The 103 of 113 species which were identified in this study are first records for the Lepidoptera fauna of Murat Mountain (North Banaz) and 87 of them are first records for Uşak province (Table I).

For proper and efficient sampling, Lepidoptera species were collected in different localities possessing different vegetation types (agricultural crops to conifer or broad-leaved forests) and altitudes (1050 to 1750m.) In this study clearly all these characteristics (locality, vegetation type, altitude and time) have an effect on distribution of living organisms, including butterflies.

According to literature review 26 species have been identified in the province of Uşak in previous studies. This study has confirmed the distribution of those species recorded for Murat Mountains in previous studies. These species are listed below:

Papilionidae: *Iphiclides podalirius* (Linnaeus, 1758); *Zerynthia* (*Allancastris*) *deyrollei* (Oberthür, 1869); *Archon apollinus* (Herbst, 1789).

Pieridae: *Leptidea duponcheli lorkovici* (Pfeiffer, 1932); *Pieris* (*Artogeia*) *rapae* (Linnaeus, 1758);

Table I.- The distribution of lepidopteran species according to families and superfamilies in Murat Mountain, Banaz, Uşak Province, Turkey.

Superfamily	Family	Records for Study area according to literature	Records for province according to literature	Identified in Study area	New for Murat mountain	New for Uşak province	Total
Papilionoidea	Papilionidae	-	3	5	5	2	5
	Pieridae	1	2	14	13	12	14
	Libytheidae	-	-	1	1	1	1
	Argynnidae	1	1	20	19	19	20
	Satyridae	4	7	20	16	13	20
	Lycaenidae	2	11	39	37	28	39
Hesperioidea	Hesperiidae	2	2	14	12	12	14
Total	7 Family	10 Species	26 Species	113 Species	103 Species	87 Species	113 Species

Argynnidae: *Melitaea (Didymaeformis) didyma* (Esper, (1778));

Satyridae: *Hyponephele lupina intermedia* (Staudinger, 1886); *Melanargia larissa noacki* Wagener, 1983; *Melanargia galathea satnia* Fruhstorfer, 1917; *Hipparchia syriaca* (Staudinger, 1871); *Brintesia circe* (Fabricius, 1775); *Chazara briseis meridionalis* (Staudinger, 1886); *Pseudochazara anthelea anthelea* (Hübner, [1824]).

Lycaenidae: *Heodes (Loweia) tityrus tityrus* (Poda, 1761); *Quercusia quercus quercus* (Linnaeus, 1758); *Lampides boeticus* (Linnaeus, 1767); *Pseudophilotes vicrama schiffermuelleri* (Hemming, 1929); *Plebeius (Plebejidea) loewii loewii* (Zeller, 1847); *Plebeius (Kretania) eurypilus eurypilus* (Freyer, 1851); *Polyommatus (Aricia) anteros anteros* (Freyer, [1838]); *Polyommatus (Thersitesia) thersites* (Canterer, [1835]); *Polyommatus (Sublysandra) cornelius* (Freyer, [1850]); *Polyommatus icarus* (Rottemburg, 1775); *Polyommatus (Admetusia) admetus anatoliensis* (Forster, 1960); *Polyommatus (Agrodiaetus) poseidon* (Herrich-Schäffer, [1851]).

Hesperiidae: *Thymelicus sylvestris* (Poda, 1761); *Spialia (Neospialia) orbifer* (Hübner, [1823]).

In conclusion, this study indicates that insect

diversity is quite high in Uşak. New studies considering insect orders should be carried out before agricultural and forest ecosystems are destroyed. Scientific and taxonomic studies about Uşak are very limited in number. This study makes contribution to the Lepidoptera fauna of Uşak.

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