

Common insects of orders Coleoptera, Lepidoptera and Hemiptera in middle region of Al-Jabal Al-Khdar, Libya.**Youssef Mousa Zaiid Yahiya***Plant Protection Dept., Fac.of Agric., Omer Al-Mukhter Univ Al-Baida., Libya.***ABSTRACT**

The study were carried out in many sites of the middle area at Al-Jabal Al-Akhder region Libya through the period from March to April 2011 in this study we shed light on the common insects unedr the following order Hemiptera, Coleoptera and Lepidoptera, which associated with the polar vegetation cover and the results of this study indicated the presence of 82species, those species were arranged in previous orders as (13 Families, 32Genera, 34Species), (6 Families, 16Genera, 18Species), (10 Families, 27Genera, 30 Species) respectively. The aim of this study in order to knew the different insect species that are distributed through whole the year in the region of the study.

Key words: Common insects, Coleoptera, Lepidoptera, Hemiptera, Al-Jabal Al-Khdar, Libya

Introduction

The study of insects thriving in the fauna has a great scientific interest in terms of knowledge of the species and their economic importance. The first list was published by Zavattari,(1934). In a study of ACSAD, (1981) recorded in the park El-kofa National region Al-Jabal Al-Khdar 72 species attacking plants arranging in 20 species, 18 genus and 11 species of the order Hemiptera and 41 species, 35 genus and 19 species of the order Lepidoptera, 11 species, 11 genus and 6 species belonging to the order of Coleoptera. Showd that Hessein, (1981) study by the Rothmasted trap in Tripoli, Libya, collecting 94 species arranging in 31 families and 6 orders. As mentioned El-Ghariani,(1992) when it is used for light traps in the region of El-Baidamany order of insect, including insects orders under the study. Conducted Bataw and Ben Saad, (1992) study for a period of 7 years in some region of Libya and the record was 13 species, including species belonging to the order of Coleoptera The record Amin *et al.* (1998), 38 species of insects belonging Order 7, which are spread on the weed region of the El-Baida. Al- Ali *et al.*(1999) recordin his studyon the plant wheat and barley region ofEl-Maraj Libya19species belonginto 6ordersome of the seorder theunder study. El-Ghariani *et al.* (2000) conducted a study in the region ofAl-Gabal Al-Khdarrecording78species, many of which belonging to these orders. El-Meghrabi, (2001) Described 26species of Lepidoptera of which 15recordedfor the first time in the region of Benghazi. In his study, (2009) toorderHemipteramentioned91species on different plant hosts. Kemal and Kocak, (2007) mentioned that about 180000species of Lepidoptera wide spread in the world, includingAfrica,22904 species and 473in Libya. El-Meghrabi and Amin, (2007)Study therein the region ofEl-Baida were recorded66species following to 36subfamilies under20families.

Material and Methods

Many localities representing different types of habitats in middle region of Al-Gabal Al-khdar were studied. Also the study area contain some Forest trees, Shrubs and other plants El-Barasi *et al.*, (2003) in addition to this there is some irrigated cultivation as (Fruit trees, Vegetable crops and Cereal crops). The survey of insects species was continued for one year starting from early March until late April, the study region divided to 8 sites (3 Kilometers length and 3Kilometers width), organized scientific expeditions weekly to collect the insects, and within sites, the insects collected randomly in different directions, using all scientific methods of insects collection (Sweeping net; Pitfall trap; Light trap; Cloth trap; Hand collecting; Infested plants sampling).The collected specimens were killed using a cotton piece immersed in ethyl acetate or by the killing in KCN bottles; specimens were pinned and labeled with information of collecting date and the site of collection and preserved for identification. The identification in the purpose of determining the specimen of order; families and species are based on various sources.

Results and Discussion

The results of the current study showed that the numbers of the represented species following to the order Hemiptera, includes 34 species arranged in 32 genera and 13 families and these the most common species. While the species represented in order Lepidoptera was 30 species and 27 genera and 10 families and the species represented in the order Coleoptera 13 species, 16 genera and 6 families. The reason for the reduction percentage of the numbers of the species in the study may be due to the wide change in the vegetation cover that caused by agricultural reclamation and forest fires and by this way a lot of insects has lost their hosts in some way wide range of planted areas with (vegetable, - crops, fruit trees and cereal crops) and the previous crops was hosts for many insects and well the diversity of the predators and the parasitoid that has been recorded in some studies in Al-Jabal Al-Akhdar region and compared to the previous studies in different sites at the study region.

Table 1: The following species were collected during the present study.

No.	Species	Family	Order
1	<i>Byrsinus flavicornis</i> F	Cydidae	Hemiptera
2	<i>Macroscytus brunneus</i> F	Cydidae	Hemiptera
3	<i>Adomerus bigattatus</i> L	Cydidae	Hemiptera
4	<i>Legnotus limbosus</i> Geoffroy	Cydidae	Hemiptera
5	<i>Tritomegas sexmaculatus</i> Rambur	Cydidae	Hemiptera
6	<i>Thyreocoris scarabaeoides</i> L	Cydidae	Hemiptera
7	<i>Aphis gossypii</i> Glover	Aphididae	Hemiptera
8	<i>Acrosterum heogeri</i> F	Pentatomidae	Hemiptera
9	<i>Acrosterum millierei</i> (Mulsant & Rey)	Pentatomidae	Hemiptera
10	<i>Ancyrosoma leucogrammes</i> (Gmelin)	Pentatomidae	Hemiptera
11	<i>Ventocoris oblongum</i> Horvath	Pentatomidae	Hemiptera
12	<i>Graphosoma semipunctata</i> (F)	Pentatomidae	Hemiptera
13	<i>Dolycoris baccarum</i> (L)	Pentatomidae	Hemiptera
14	<i>Codophila varia</i> (F)	Pentatomidae	Hemiptera
15	<i>Nezara viridula</i> L	Pentatomidae	Hemiptera
16	<i>Eurydema ornatum</i> (L)	Pentatomidae	Hemiptera
17	<i>Empoasca decipiens</i> Paoli	Cicadellidae	Hemiptera
18	<i>Lygaeus pandurus</i> (Scop)	Lygaeidae	Hemiptera
19	<i>Horvathiolus persimilis</i> Horvath	Lygaeidae	Hemiptera
20	<i>Ectomocoris ululanus</i> (Rossi)	Lygaeidae	Hemiptera
21	<i>Orsillus depressus</i> Dallas	Lygaeidae	Hemiptera
22	<i>Deraeocoris eremicus</i> L	Miridae	Hemiptera
23	<i>Deraeocoris trifasciatus</i> L	Miridae	Hemiptera
24	<i>Corizus hyoscyami</i> L	Rhopalidae	Hemiptera
25	<i>Liorhyssus hyalinus</i> F	Rhopalidae	Hemiptera
26	<i>Rhopalus subrufus</i> (Gml)	Rhopalidae	Hemiptera
27	<i>Centrocoris spiniger</i> F	Coreidae	Hemiptera
28	<i>Gonocerus freyi</i> Mancini	Coreidae	Hemiptera
29	<i>Scantiusa egyptius</i> L	Pyrrhocoridae	Hemiptera
30	<i>Bemisia tabaci</i> (Gennadius)	Aleyrodidae	Hemiptera
31	<i>Ceroplastes rusci</i> L	Coccidae	Hemiptera
32	<i>Parasaissetia oleae</i> Ezzat & Hussein	Coccidae	Hemiptera
33	<i>Euphyllura olivine</i> (Costa)	Psyllidae	Hemiptera
34	<i>Tropinota squalida</i> Scopoli	Cetoniidae	Coleoptera
35	<i>Oxythyrea noemi</i> Reich & Sauley	Cetoniidae	Coleoptera
36	<i>Aethiessa floralis</i> (F)	Cetoniidae	Coleoptera
37	<i>Aethiessa mesopotamica</i> Burmeister	Cetoniidae	Coleoptera
38	<i>Potosia cuprea</i> Herbst	Cetoniidae	Coleoptera
39	<i>Cerambyx dux</i> F	Cerambycidae	Coleoptera
40	<i>Macrotoma palmate</i> (F)	Cerambycidae	Coleoptera
41	<i>Ocantha semipunctata</i> (F)	Cerambycidae	Coleoptera
42	<i>Purpuricenus desfontainii</i> F	Cerambycidae	Coleoptera
43	<i>Penichroa fasciata</i> Stephens	Cerambycidae	Coleoptera
44	<i>Stromatium unicolor</i> Olivier	Cerambycidae	Coleoptera
45	<i>Hesperophanes sericeus</i> F	Cerambycidae	Coleoptera
46	<i>Trichoferus fasciculatus</i> Faidermenn	Cerambycidae	Coleoptera
47	<i>Trichoferus griseus</i> F	Cerambycidae	Coleoptera
48	<i>Rhessus serricollis</i> (Motschulsky)	Cerambycidae	Coleoptera
49	<i>Pachytyrc hiushordie</i> Brulle	Curculionidae	Coleoptera
50	<i>Bruchidius lonceolatus</i> Mosts	Bruchidae	Coleoptera
51	<i>Psylliodes elliptisa</i> Allard	Chrysomelidae	Coleoptera
52	<i>Mylabris oleae</i> Lap	Meloidae	Coleoptera
53	<i>Gonepteryx cleopatra</i> L	Pieridae	Lepidoptera
54	<i>Pontia glaucanome</i> Klug	Pieridae	Lepidoptera

55	<i>Colias crocea</i> Fourcroy	Pieridae	Lepidoptera
56	<i>Artogeia rapae</i> L	Pieridae	Lepidoptera
57	<i>Artogeia brassica</i> L	Pieridae	Lepidoptera
58	<i>Vanessa atalanta</i> L	Nymphalidae	Lepidoptera
59	<i>Cynthia cardui</i> L	Nymphalidae	Lepidoptera
60	<i>Mesoacidalia aglaja</i> L	Nymphalidae	Lepidoptera
61	<i>Macroglossa stellatarum</i> L	Sphingidae	Lepidoptera
62	<i>Hyles lineate</i> F	Sphingidae	Lepidoptera
63	<i>Hippotion celerio</i> L	Sphingidae	Lepidoptera
64	<i>Daphnis nerii</i> L	Sphingidae	Lepidoptera
65	<i>Acherontia atropos</i> L	Sphingidae	Lepidoptera
66	<i>Herse convolvuli</i> L	Sphingidae	Lepidoptera
67	<i>Agrotis ipsilon</i> Hufn	Noctuidae	Lepidoptera
68	<i>Agrotis segetum</i> Schiff	Noctuidae	Lepidoptera
69	<i>Agrotis spinifera</i> Hb	Noctuidae	Lepidoptera
70	<i>Spodoptera littoralis</i> Boisd	Noctuidae	Lepidoptera
71	<i>Noctua pronuba</i> L	Noctuidae	Lepidoptera
72	<i>Autographa gamma</i> L	Noctuidae	Lepidoptera
73	<i>Lamides beoticus</i> L	Lycaenidae	Lepidoptera
74	<i>Lycaena phlaeas</i> L	Lycaenidae	Lepidoptera
75	<i>Tomares ballus</i> F	Lycaenidae	Lepidoptera
76	<i>Polymmatas icarus</i> Rotterm	Lycaenidae	Lepidoptera
77	<i>Deudorix livia</i> Klug	Lycaenidae	Lepidoptera
78	<i>Aegeria myopaeformis</i> Brok	Aegeriidae	Lepidoptera
79	<i>Zeuzera pyrina</i> L	Cossidae	Lepidoptera
80	<i>Cydia pomonella</i> L	Olethreutidae	Lepidoptera
81	<i>Malacosoma neustria</i> L	Lasiocampidae	Lepidoptera
82	<i>Danaus chrysippus</i> L	Danaidae	Lepidoptera

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