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SURVEY OF INSECTS IN SOME SOUTHERN IRAQI MARSHES

Hanaa H. Al-Saffar♦ and Razzaq Shalan Augul

Iraq Natural History Research Center and Museum, University of Baghdad, Baghdad, Iraq.
♦Corresponding author email: dr.hanaa66@nhm.uobaghdad.edu.iq

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ABSTRACT

This study included a survey and review of the scientific names of the marsh insects (aquatic and surrounding it) for the purpose of unifying and updating the database.

The survey reveals 109 species under 77 genera that belong to 32 families and 7 orders as follow: Coleoptera (44 species), Diptera (7 species) Ephemeroptera (2 species), Hemiptera (14 species), Hymenoptera (11 species), Lepidoptera (2 species) and Odonata with 29 species.

Information of specimens' collection for each species, synonyms and geographical distribution were provided.

Key words: Insects, Iraq, Marshes, Survey, Synonyms.

INTRODUCTION

The Iraqi marshlands cover an area of 15000-20000 sq. km in the lower part of the Mesopotamian basin where the Tigris and Euphrates Rivers flow; that lie on a softly sloping plan which causes the two rivers to meander which branches form the marshes. The marshes lay on the heavy fluvial sediments that are carried by the rivers in the area (Al-Ansari *et al*., 2012). The marshes of Iraq are one of the largest water area and with completely ecosystem in the Middle East. They are situated at the southern part among Basra, Maysan and Thi Qar Provinces. The marshes consist of three main regions: Central Marshes, Hawizeh and Al-Hammar Marsh (Bedair *et al*., 2006).

According to the previous field studies, the marshes including a wide range of diversity with their levels which appeared with high fluctuations; on the other hand, the marshes status was affected in high degree by high flood and drying seasons (Al-Hili, 1977; Richardson *et al*., 2005). In the marshes of southern Iraq, the pervious investigation is focused on the water quality, zooplankton and phytoplankton diversity, macro-invertebrates and birds; however, less attention was made toward micro-invertebrates, insects, and herpetofauna (Iraqi Ministry of Health and Environment, 2017).

From the other side, there were eleven water beetles species of the family Haliplidae collected from the Shatt Al Arab and marshes of southern Iraq (Ali, 1976); also lists 55 species of dytiscid water beetles (Family, Dytiscidae) and fifteen species of gyrinid beetles (Family, Gyrinidae) (Ali, 1978 a, b). As well, Twenty five dragonfly species are known to occur in the central and southern Iraqi Marshlands (Boudot *et al*., 2009). Hassan *et al*. (2000) reported *Anax* spp. and *Ischnura evansi* Morton, 1919 (Odonata, Coenagrionidae) from several stations along Shatt al-Arab; Ali *et al*. (2002) studied the seasonal abundances of *I. evansi* and *Brachythemis fuscopalliata* Selys, 1887 (Odonata, Libellulidae) in the Qarmat Ali region near Basrah. Dragonflies inhabiting rivers and marshes in arid regions such as southern Iraq, such as *Hemianax ephippiger* and *Ischnura evansi* are tolerant of high salinity (Corbet, 1999).

Generally, the biodiversity in the re-inundated southern marshes of Iraq has attracted the attention of many authors; however, still little is known about certain biota the marshes such as fungi, invertebrates such as annelids and aquatic insects, and wild mammals. The biodiversity in the Iraqi marshes is considered low when it compared with other wetlands in the world (Hussain, 2014).

Updating checklists in this ecosystem still out of date; therefore, the study aimed to prepare an updating checklist of the insect species that live in marshes or closely to this unique ecosystem.

MATERIALS AND METHODS

The specimens were collected from different localities Southern Marshes of Iraq from three provinces (Basra, Maysan and Thi Qar) by using air and water nets and sometimes with hands .The adult insects were killed by freezing for 24 hours while the larvae killed by alcohol 70%. The localities and date of collection were recorded. The specimens were classified and identified to orders, families, genera and species by using different classification keys such as: Coe *et al*. (1950); Cranston and Judd (1989); Askew (2004); Nieser (2004); Dijkstra and Lewington (2006); Kalkman, (2006); Madden (2010); Kumar (2012); Perveen *et al*. (2014); Al-Hashmi *et al*. (2018); Novoselsky *et al*. (2018) and Alhejoj *et al*. (2020).

The diagnosis of insects by the authors and the specimens were deposed at the Department of Entomology and Invertebrates, Iraq Natural History Research Center and Museum-University of Baghdad. The synonyms of species have been verified according to GBIF Secretariat (2021).

RESULTS AND DISCUSSION

In this investigation showed 110 species at southern marshes belonging to seven orders: Coleoptera (45), Diptera (7), Ephemeroptera (2); Hemiptera (15); Hymenoptera (11); Lepidoptera (2) and Odonata with 29 species, as below:

(A) Order, Coleoptera

(1) Family, Dytiscidae

Genus, ***Agabus*** Leach, 1817

Synonyms: *Acathodes* Seidlitz, 1887
Acatodes Thomson, 1859
Agabinectes Guignot, 1933
Allonychus Zaitzev, 1905
Apator Semenov, 1898
Arctodytes Thomson, 1874
Badynectus Seidlitz, 1872
Carrhydrus Fall, 1922
Dichodytes Thomson, 1886
Dichonectes Guignot, 1945
Eriglenus Thomson, 1860
Gabinectes Guignot, 1931
Gaurodytes Thomson, 1859
Heteronychus Seidlitz, 1887
Mesogabus Gueorguiev, 1969
Metronectes Sharp, 1882
Necticus Hope, 1838
Neonecticus Guignot, 1951
Scytodytes Seidlitz, 1887
Xanthodytes Seidlitz, 1887

Agabus biguttatus (Olivier, 1795)

Synonym: *Dytiscus biguttatus* Olivier, 1795

Material examined: 7 specimens; Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2020

Distribution: Iraq (Abdul Karim, 1978); Jordon, Saudi Arabia and Yemen (Ramadan and Ramadan, 2021).

Agabus caraboides Sharp, 1882

Material examined: 1 specimen; Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2020

Distribution: Iraq (Zimmermann, 1920); Turkey and Greece (GBIF Secretariat, 2021).

Agabus conspersus (Marsham, 1802)

Synonyms: *Agabus corsicus* Guignot, 1932
Dytiscus conspersus Marsham, 1802

Material examined: 5 specimens; Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2020

Distribution: Iraq (Zimmermann, 1920; Nilson, 2003); Jordon and Kuwait (Ramadan and Ramadan, 2021).

Agabus guttatus (Paykull, 1798)
Synonym: *Dytiscus guttatus* Paykull, 1798
Material examined: 4 specimens, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2020.
Distribution: Iraq (Abdul-Karim, 1978); Turkey (Darilmaz and kayak, 2009).

Agabus paludosus (Fabricius, 1801)
Synonym: *Dytiscus paludosus* Fabricius, 1801
Material examined: 3 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 30.vi.2020
Distribution: Iraq (Abdulhasan *et al*., 2009); Turkey (Darilmaz and kayak, 2009).

Agabus safei Abdul-Karim & Ali, 1986
Material examined: 5 specimens, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2020.
Distribution: Iraq (Abdul-Karim and Ali, 1986).

Genus, ***Bidessus*** Sharp, 1882
Synonym: *Callioprus* Adam, 1996

Bidessus exorantus (Reich and Saulcy, 1855)
Synonym: *Hydroporus exorantus* Reich and Saulcy, 1855
Material examined: 2 specimens; Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2020.
Distribution: Iraq (Abdul-Karim, 1978); Turkey (Darilmaz and kayak, 2009).

Genus, ***Colymbetes*** Clairville, 1806
Synonyms: *Cymatopterus* Dejean, 1833
Lymnaeus Gistel, 1834

Colymbetes fuscus (Linnaeus, 1758)
Synonym: *Dytiscus fuscus* Linnaeus, 1758
Material examined: 1 specimen; Thi-Qar Province, Al-Chibayish Marshes, 30.iv.2020.
Distribution: Iraq (Abdul-Karim, 1978); Liberian Peninsula (Garrido and Munilla, 2008); Turkey (Darilmaz and kayak, 2009); Croatia (Turić *et al*., 2011); Iran (Taher and Heydarnejad, 2019).

Colymbetes piceus Klug, 1834
Material examined: 3 specimens; Thi-Qar Province, Al-Chibayish Marshes, 30.iv.2020.
Distribution: Iraq (Derwesh, 1965); Kuwait, Saudi Arabia (Ramadan and Ramadan, 2021).

Genus, ***Copelatus*** Erichson, 1832

Copelatus pulchellus (Klug, 1834)
Synonym: *Copelatus mimetes* Guignot, 1957

Material examined: 13 specimens; Thi-Qar Province, Al-Chibayish Marshes, 30.iv.2020.
Distribution: Iraq (Abdul-Karim, 1978); widespread to Western and Eastern Africa (Perissinotto *et al*., 2016*)*.

Genus, ***Cybister*** Curtis, 1827

Synonyms: *Alocomerus* Brinck, 1945
Cybisteter Bedel, 1880
Gschwendtnerhydrus Brinck, 1945
Megadytoides Brinck, 1945
Meganectes Brinck, 1945
Melanectes Brinck, 1945
Nealocomerus Brinck, 1945
Neocybister Miller, Bergsten & Whiting, 2007
Scaphinectes Ádám, 1993
Trochalus Dejean, 1833
Trogulus Brodie, 1874
Trogus Leach, 1817

Cybister tripunctatus (Olivier, 1795)

Synonyms: *Cybister szechwanensis* Falkenström, 1936
Dytiscus tripunctatus Olivier, 1795

Material examined: 11 specimens; 3 specimens, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii. 2020; 8 specimens, Thi- Qar Province, Al-Chibayish Marshes, 30.iv.2020.
Distribution: Iraq (Abdul-Rassoul,1976); Taiwan(Nilsson *et al*., 1995); Kuwait (Al-Houty, 2004); Turkey (Darilmaz and kayak, 2009); West Africa (Yapo *et al.*, 2013).

Genus, ***Eretes*** Laporte, 1833

Synonyms: *Eunectes* Erichson, 1832
Hogrus Zubkov, 1837
Nogrus Dejean, 1833

Eretes sticticus (Linnaeus, 1767)

Synonyms: *Dytiscus sticticus* Linnaeus, 1767
Eretes occidentalis (Erichson, 1847)
Eretes stricticus (Linnaeus, 1767)

Material examined: 3 specimens, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2020.
Distribution: Iraq (Abdul-Karim, 1978); Taiwan (Nilsson *et al*., 1995); Southern of United States and Peru (Miller, 2002); Iran, Pakistan (Hájek, 2006); Egypt (Younes, 2008); Kuwait (Al-Houty, 2009); Turkey (Darilmaz and kayak, 2009); Algeria, Botswana, Ethiopia, Tunisia, Sudan, Morocco, Zimbabwe, South Africa, Namibia, Madagascar, Tanzania, Kenya, Senegal, Mali, India, Korea, Guam, Uzbekistan, Turkmenistan, Japan, Thailand, Philippines, Vietnam, Ecuador, Mexico, Portugal, Spain, Greece, Italy and Australia (GBIF Secretariat, 2021).

Genus, ***Herophydrus*** Sharp, 1880
Synonym: *Dryephorus* Guignot, 1950

Herophydrus guineensis (Aubé, 1838)
Synonyms: *Herophydrus mutatus* (Gemminger & Harold, 1868)
Hygrotus guineensis (Aubé, 1838)
Hyphydrus guineensis Aubé, 1838
Material examined: 4 specimens; 3 specimens, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2020; 1 specimen, Thi- Qar Province, Al-Chibayish Marshes, 30.iv.2020.
Distribution: Iraq (Abdul-Karim, 1978); Turkey (Darilmaz and kayak, 2009); Egypt (Salah and Cueto, 2014).

Herophydrus musicus (Klug, 1834)
Synonyms: *Coelambus interruptus* Sharp, 1882
Hydroporus fractilinea Solsky, 1874
Hydroporus musicus Klug, 1834
Hygrotus alei Abdul-Karim & Ali, 1986
Material examined: 5 specimens; Thi-Qar Province, Al-Chibayish Marshes, 30.iv.2020.
Distribution: In Iraq, previously recorded as *Hygrotus alei* (Abdul-Karim and Ali, 1986); Iran, Pakistan (Hájek, 2006); Turkey (Darilmaz and kayak, 2009); Kuwait (Al-Houty, 2009); Egypt (Salah and Cueto, 2014).

Genus, ***Hydaticus*** Leach, 1817
Synonyms: *Guignotites* Brinck, 1943
Hydaticinus Guignot, 1950
Icmaleus Gistel, 1856
Isonotus Guignot, 1936
Pleurodytes Régimbart, 1899
Prodaticus Sharp, 1882

Hydaticus dorsiger Aubé, 1838
Material examined: 5 specimens, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2020.
Distribution: Iraq (Abdul-Karim, 1978); Widely distributed species, (Guignot, 1961).

Hydaticus ponticus Sharp, 1882
Material examined: 1 specimen, Thi- Qar Province, Al-Chibayish Marshes, 30.iv.2020.
Distribution: Iraq (Abdul-Karim, 1978); Iran, Pakistan (Hájek, 2006); Turkey (Darilmaz and kayak, 2009).

Genus, ***Hydroglyphus*** Motschulsky, 1853
Synonym: *Guignotus* Houlbert, 1934

Hydroglyphus confusus (Klug, 1834)

Synonym: *Hydroporus confusus* Klug, 1834
Material examined: 6 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 30.vi.2020.
Distribution: Iraq (Abdul-Karim, 1978); Turkey (Darilmaz and kayak, 2009); Egypt (Salah and Cueto, 2014); Croatia (Turić *et al*., 2017).

Genus, ***Hydroporus*** Clairville, 1806
Synonym: *Hydrotarsus* Falkenström, 1938

Hydroporus tessellatus (Drapiez, 1819)
Synonym: *Dytiscus tessellatus* Drapiez, 1819
Distribution: Iraq (Abdul-Karim, 1978); Liberian Peninsula (Garrido and Munilla, 2008); Turkey (Darilmaz and Kayak, 2009); Egypt (Salah and Cueto, 2014).

Genus, ***Hydrovatus*** Motschulsky, 1853
Synonyms: *Hydatonychus* Kolbe, 1883
Oxynoptilus Schaum, 1868
Pseudhydrovatus Peschet, 1924
Vathydrus Guignot, 1954

Hydrovatus badeni Sharp, 1882
Material examined: 3 specimens, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2020.
Distribution: Iraq (Abdul-Karim, 1978).

Hydrovatus clypealis Sharp, 1876
Synonym: *Oxynoptilus clypealis* (Sharp, 1876)
Material examined: 1 specimen, Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.
Distribution: Iraq (Abdul-Karim, 1978); Egypt (Salah and Cueto, 2014).

Hydrovatus meridionalis Abdul-Karim & Ali, 1986
Material examined: 3 specimens, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2020
Distribution: Iraq (Abdul-Karim and Ali, 1986)

Genus, ***Hygrotus*** Stephens, 1828
Synonyms: *Drryephorus* Guignot, 1950
Heroceras Guignot, 1950
Herophydrus Sharp, 188
Hyphoporus Sharp, 1880

Hygrotus sp.
Material examined: 1 specimen, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2020.
Distribution: Iraq (Abdulhasan *et al*., 2009)

Genus, ***Hyphoporus*** Sharp, 1880

Hyphoporus solieri (Aubé, 1838)
Synonym: *Agabus solieri* Aubé, 1837
Material examined: 7 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 29.viii.2020
Distribution: Iraq (Abdul-Karim, 1978); Egypt (Salah and Cueto, 2014); Kuwait (Amr, 2021)

Genus, ***Hyphydrus*** Illiger, 1802
Synonyms: *Actobaena* Gistel, 1856
Allophydrus Zimmermann, 1930
Apriophorus Guignot, 1938
Aulacodytes Guignot, 1938
Hyphidrus Illiger, 1802
Hyphidrus Sturm, 1826
Pachytes Montrouzier, 1860

Hyphydrus aubei Ganglbauer, 1891
Material examined: 5 specimens, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021
Distribution: Iraq (Abdul-Karim, 1978); Liberian Peninsula (Garrido and Munilla, 2008).

Genus, ***Laccophilus*** Leach, 1815
Synonym: *Lacophilus* Sturm, 1826

Laccophilus hyalinus (De Geer, 1774)
Synonyms: *Dyticus marmoratus* Fourcroy, 1785
Dytiscus hyalinus De Geer, 1774
Laccophilus interruptus (Panzer, 1795)
Laccophilus testaceus Aubé, 1837
Material examined: 8 specimens, Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.
Distribution: Iraq (Abdul-Karim, 1978); Turkey (Darilmaz and kayak, 2009); Iran (Vafael *et al*., 2009); Kis- Balaton (Lőkkös, 2014); Croatia (Turić *et al*., 2017); Iran (Taher and Heydarnejad, 2019); Ireland (Nelson *et al*., 2019).

Laccophilus minutus (Linnaeus, 1758)
Synonyms: *Dytiscus dinutus* Linnaeus, 1758
Dytiscus minutus Linnaeus, 1758
Laccophilus obscurus (Panzer, 1795)
Laccophilus variolosus (Herbst, 1784)
Material examined: 2 specimens, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.
Distribution: Iraq (Abdul-Karim, 1978); Jordan (Ramadan and Ramadan, 2021).

Laccophilus poecilus Klug, 1834

Synonyms: *Dyticus variegatus* Germar, 1812
Dytiscus variegatus Germar & Kaulfuss, 1817
Laccophilus ponticus Sharp, 1882
Laccophilus variegatus (Germar, 1812)

Material examined: 3 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 29.viii.2020

Distribution: Iraq (Abdul-Karim, 1978 as *Laccophilus ponticus*); Kuwait (Al-Houty, 2004); Turkey (Darilmaz and kayak, 2009); Croatia (Turić *et al*., 2017).

Laccophilus sharpi Régimbart, 1889

Material examined: 9 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 29.viii.2020

Distribution: Iraq (Abdul-Karim, 1978); Iran, Pakistan (Hájek, 2006).

Genus, ***Nebrioporus*** Régimbart, 1906

Synonyms: *Bistictus* Guignot, 1942
Potamodytes Zimmermann, 1919
Potamonectes Zimmermann, 1921
Rhabdonectes Houlbert, 1934
Zimmermannius Guignot, 1942

Nebrioporus laeviventris (Reiche & Saulcy, 1855)

Synonym: *Hydroporus laeviventris* Reiche & Saulcy, 1855

Material examined :2 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 23.vi.2021.

Distribution: Iraq (as *Stictotarsus laeviventris* Reiche and Saulcy, 1855) Abdul-Karim, 1978); Taiwan (Nilsson *et al*., 1995); Turkey (Darilmaz and kayak, 2009).

Genus, ***Platambus*** Thomsom, 1859

Synonyms: *Agraphis* Guignot, 1954
Allogabus Guignot, 1954
Anagabus Jakovlev, 1897
Colymbinectes Falkenström, 1936
Neoplatynectes Vazirani, 1970
Paraplatynects Vazirani, 1970

Platambus maculatus (Linnaeus, 1758)

Synonyms: *Agabus maculatus* (Linnaeus, 1758)
Dyticus hebraicus Fourcroy, 1785
Dytiscus maculatus Linnaeus, 1758

Material examined :4 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 23.vi.2021.

Distribution: Iraq (Abdul-Karim, 1978); Turkey (Darilmaz and kayak, 2009); Mongollia (Enkhnasan and Blodgiv, 2019).

Genus, ***Rhantus*** Dejean, 1833

Synonyms: *Anisomera* Brullé, 1834
Anisomeria Brinck, 1943
Ilybiomorphus Porta, 1923
Rantogiton Des Gozis, 1910
Rantus Dejean, 1833
Rhantus Agassiz, 1846
Senilites Brinck, 1948

Rhantus suturalis (MacLeay, 1825)

Synonyms: *Colymbetes montrouzieri* Lucas, 1860
Colymbetes pulverosus Stephens, 1828
Colymbetes suturalis W.S.MacLeay, 1825
Dyticus punctatus Fourcroy, 1785
Rhanthus suturalis (W.S.MacLeay, 1825)
Rhantus pulverosus (Stephens, 1828)

Material examined: 1 specimen, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021

Distribution: Iraq (recorded as *Rhantus pulverosus* (Stephens, 1828) ,Abdul-Karim, 1978); Taiwan ; (Nilsson *et al*., 1995); Iran , Pakistan (Hájek, 2006); Liberian Peninsula (Garrido and Munilla, 2008); Turkey (Darilmaz and, and Kayak, 2009); Kis- Balaton (Lőkkös, 2014); Croatia (Turić *et al*., 2017); Kuwait (Edmonds *et al*., 2019); South Korea (Jung *et al*., 2020).

2- Family, Gyrinidae

Genus, ***Dineutus*** Macleay, 1825

Dineutus grandis (Klug J.C.F., 1834)

Synonym: *Gyrinus grandis* Klug J.C.F., 1834

Material examined: 3 specimens, Thi- Qar Province, Al-Chibayish Marshes, 19.vi.2019.

Distribution: Iraq (Ali, 1978b). North-east Africa and the Arabian Peninsula (Brinck, 1955).

Genus, ***Gyrinus*** Geoffroy, 1762

Synonyms: *Gyradelphus* Gozis, 1915
Gyrinidius Guignot, 1951
Gyrinoides Guignot, 1948
Gyrinulus Zaitzev, 1907
Gyrinus Linnaeus, 1767
Gyrinus Müller, 1764
Neogyrinus Hatch, 1925
Oreogyrinus Ochs, 1935

Gyrinus natator (Linnaeus, 1758)

Synonyms: *Dytiscus natator* Linnaeus, 1758
Gyrinus mergus Ahrens, 1812

Material examined: 3 specimens, Thi- Qar Province, Al-Chibayish Marshes, 19.vi.2021.
Distribution: Iraq (Ali, 1978); Ireland (Nelson *et al*., 2019).

3- Family, Hydraenidae
Genus, ***Hydraenida*** Germain, 1901

Hydraenida sp.
Material examined: 2 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 23.viii.2021.
Distribution: Iraq (Abdulhasan *et al*., 2009); Chile (GBIF Secretariat, 2021).

Genus, ***Ochthebius*** Leach, 1815
Synonyms: *Asiobates* Thomson, 1859
Asiobathes Kuhnt, 1912
Homalochthebius Kuwert, 1887
Lunzochthebius Ienistea, 1988
Mimasiobates Ienistea, 1988
Ochtebius Thomson, 1859
Trymochthebius Kuwert, 1887

Ochthebius sp.
Material examined: 11 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 23.viii.2021.
Distribution: The members of the genus *Ochthebius* distribute in the Palaearctic, Oriental, Neotropical, Nearctic, Australian and Afrotropical regions (Villastrigo *et al*., 2019).

4- Family, Hydrophilidae
Genus, ***Enochrus*** Thomson, 1859
Synonyms: *Agraphilhydrus* Everts, 1898
Agraphilydrus Kuwert, 1888
Agraphophilydrus Zaitzev, 1908
Farana Knisch, 1922
Holcophilhydrus d'Orchymont, 1919
Holcophilhydus Orchymont, 1919
Holcophilydrus Knisch, 1911
Hydatotrephis MacLeay, 1871
Hydatotrophis d'Orchymont, 1919
Hydrotrephis Régimbart, 1908
Lumetus Zaitzev, 1908
Methydrus Rey, 1885
Philhydrus Brullé, 1835
Philydrus Solier, 1834
Pseudenochrus Lomnicki, 1911

Enochrus melanocephalus (Olivier, 1793)

Synonyms: *Enochrus italus* Kuwert, 1890
Hydrobius atricapillus Stephens, 1829
Hydrophilus bicolor Gyllenhal, 1808
Hydrophilus melanocephalus A. G. Olivier, 1793
Hydrophilus striatus Turton, 1802

Material examind: 3 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 29.viii.2020.

Distribution: Iraq (Abdulhasan *et al*., 2009); Kis- Balaton (Lőkkös, 2014); Croatia (Turić *et al*., 2017); Ireland (Nelson *et al*., 2019).

Genus, ***Paracymus*** C. G. Thomson, 1867

Synonyms: *Eumetacymus* Brethes, 1922
Paracymorphus Kuwert, 1888
Quasiparacymus Marjanian, 2009

Paracymus sp.

Material examined: 1specimen, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 23.viii.2021.

Distribution: Iraq (Abdulhasan *et al*., 2009). The genus of *Paracymus* distribute in Australia, Guyana, Argentina, Colombia, Paraguay, Venezuela, Canada, USA, France, Germany, Netherlands, Sweden, Spain, Suriname and Vietnam (GBIF Secretariat, 2021).

5- Family, Georissidae

Genus, ***Georissus*** Latreille, 1809

Synonyms: *Cathammistes* Illiger, 1807
Georyssus Latreille, 1809
Georyssus Stephens, 1828
Neogeorissus Satô, 1972
Nipponogeorissus Satô, 1972

Georissus sp.

Material examined: 1 specimen, Thi- Qar Province, Al-Chibayish marsh, 19.vi.2021.

Distribution: Iraq (Abdulhasan *et al*., 2009); this genus is worldwide distribution (GBIF Secretariat, 2021).

6- Family, Hygrobiidae

Genus, ***Hygrobia*** Latreille, 1804

Synonyms: *Hydrachna* Fabricius, 1801
Hydrachne Latreille, 1802
Hygriobia Latreille, 1804
Paelobius Schonherr, 1808
Pelobius Erichson, 1832
Paelobius Schonherr, 1808

Pelobius Erichson, 1832
Pelobius Schoenherr, 1808
Poelobius Schönherr, 1808

Hygrobia sp.
Material examined: 1 specimen, Thi- Qar Province, Al-Chibayish marsh, 19.vi.2021.
Distribution: Iraq (Abdulhasan *et al*., 2009); the genus of *Hygrobia* is native in Europe, North Africa, China and Australia (Nilsson, 2006).

7- Family, Noteridae
Genus, ***Canthydrus*** Sharp, 1882

Canthydrus luctuosus (Aubé, 1838)
Material examined: 3 specimens, Thi- Qar Province, Al-Chibayish Marshes, 19.vi.2021.
Distribution**:** Iraq (Abdul- Karim, 1978); Cambodia, India, Indonesia, Iran, Sri Lanka, Syria, Vietnam (Nilsson, 2011).

Genus, ***Hydrocanthus*** Say, 1823
Synonyms: *Allocanthus* Guignot, 1948
Sternocanthus Guignot, 1948

Hydrocanthus sp.
Material examined: 1 specimen, Thi- Qar Province, Al-Chibayish Marshes, 19.vi.2021.
Distribution: Wildly distributed (Young, 1985); Iraq (Abdulhasan *et al*., 2009).

Genus, ***Noterus*** Clairville, 1806

Noterus clavicornis (De Geer, 1774)
Synonyms: *Dytiscus clavicornis* De Geer, 1774
Dytiscus semipunctatus Fabricius, 1792
Dytiscus sparsus Marsham, 1802
Noterus convexiusculus Reiche & Saulcy, 1855
Material examined: 2 specimens, Thi- Qar Province, Al-Chibayish marsh, 19.vi.2021.
Distribution: Iraq (Abdul-Karim, 1978); Turkey (Darilmaz and kayak, 2009); Croatia (Turić *et al*., 2011); Kis- Balaton (Lőkkös, 2014); Iran (Taher and Heydarnejad, 2019).

Noterus ponticus Sharp, 1882
Material examined: 3 specimens, Thi- Qar Province, Al-Chibayish marsh, 19.vi.2021.
Distribution: Iraq (Abdul-Karim, 1978); Iran (Nilsson, 2011); Kuwait (Edmonds *et al*., 2019).

Genus, ***Suphisellus*** Crotch, 1873

Suphisellus sp.

Material examined: 7 specimens, Thi- Qar Province, Al-Chibayish marsh, 19.vi.2021.
Distribution: Worldwide (Nilsson, 2011).

(B) Order, Diptera

1- Family, Chaoboridae

Genus, ***Chaoborus*** Lichtenstein, 1800

Synonyms: *Corehtra* Angelin, 1820
Corethra Meigen, 1803
Culicites Heyden, 1862
Proboscistoma Saccardo, 1864

Chaoborus sp.

Material examined: 13 specimens (larval stages); 3 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 31.vi.2019; 10 specimens, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.
Distribution: The genus *Chaoborus* is worldwide distribution (except Antarctica) (Borkent, 1993); Iraq (Abdulhasan *et al*., 2009).

2-Family, Chironomidae

Genus, ***Chironomus*** Meigen, 1803

Synonyms: *Camptochironomus* Kieffer, 1918
Chaetolabis Townes, 1945
Cheironomus Wollaston, 1858
Chiotonomus Wiedemann, 1817
Holtedahlia Kieffer, 1922
Lobochironomus Ryser, Scholl &Wülker, 1985
Tendipes Meigen, 1800

Chironomus annularius Kieffer, 1926

Synonyms: *Chironomus absconditus* Kieffer, 1926
Chironomus horni Kieffer, 1918

Material examined: (9 adults, 4 larvae): Thi- Qar Province, Al- Hammar Marshes, 3.vii.2021.
Distribution: Iraq (Al-Saffar, 2008); Nearctic Region (Oliver *et al.*, 1990); Italy (Rossaro *et al.*, 2019)

Chironomus riparius Meigen, 1804

Synonyms: *Chironomus albistria* Walker, 1848
Chironomus albistris Walker, 1848
Chironomus bifilis Thienemann & Kieffer, 1916
Chironomus curtibarba Kieffer, 1922
Chironomus curtiforceps Thienemann & Kieffer, 1916
Chironomus dichromocerus (Kieffer, 1911)
Chironomus gregarius Kieffer, 1909

Chironomus halochares Kieffer, 1915
Chironomus ichtyobrota (Kieffer, 1911)
Chironomus indivisus (Kieffer, 1911)
Chironomus interruptus Kieffer, 1909
Chironomus kochianus Kieffer & Thienemann, 1919
Chironomus militaris Johannsen, 1937
Chironomus pentatomus Kieffer, 1909
Chironomus serus Malloch, 1915
Chironomus subproductus (Kieffer, 1911)
Chironomus subriparius Kieffer, 1918
Chironomus thummi (Kieffer, 1911)
Chironomus zonulus Zetterstedt, 1838
Tendipes dichromocerus Kieffer, 1911
Tendipes ichtyobrota Kieffer, 1911
Tendipes indivisus Kieffer, 1911
Tendipes rhyparobius Kieffer, 1911
Tendipes subproductus Kieffer, 1911
Tendipes thummi Kieffer, 1911

Material examined: 15 specimens: Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.
Distribution: Iraq (Abdulhasan *et al*., 2009); Japan (Sasa, 1989) Nearctic Region (Oliver *et al*., 1990); Italy (Rossaro *et al*., 2019); Iran (Aydın and Samin, 2020).

Genus, ***Glyptotendipes*** Kieffer, 1913
Synonyms: *Caulochironomus* Heyn, 1993
Heynotendipes Spies & Saether, 2004
Phytotendipes Goetghebuer, 1937
Trichotendipes Heyn, 1993

Glyptotendipes sp.
Material examined: 13 specimens (5 adults, 8 larvae); Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.
Distribution: Iraq (Abdulhasan *et al*., 2009); The genus *Glyptotendipes* has a Holarctic distribution (Catalogue of Life, 2009).

Genus, ***Paratendipes*** Kieffer, 1911
Synonym: *Synparatendipes* Thienemann, 1913

Paratendipes albimanus (Meigen, 1818)
Synonyms: *Chironomus albimanus* Meigen, 1818
Chironomus annularis Meigen, 1804
Chironomus heteropus Kieffer, 1906
Paratendipes annularis (Meigen, 1804)
Material examined: 7 specimens; Thi-Qar Province, Al-Chibayish Marshes, 3.vi.2019.

Distribution: Iraq (Abdulhasan *et al*., 2009); Nearctic Region (Oliver *et al.*, 1990); Korea (Na *et al*., 2010); Polish (Larocque- Tobler, 2014); Turkey (Aydin and Güher, 2017); Italy (Rossaro *et al.*, 2019); Wisconsin (Egan *et al*., 2019); Iran (Mohammadi *et al*., 2021).

Genus, ***Pentaneura*** Philippi, 1865

Pentaneura sp.
Material examined: 16 specimens (7 adults, 9 larvae); Thi- Qar Province, Al-Chibayish Marshes, 3.vi.2019.
Distribution: Iraq (Abdulhasan *et al*., 2009); Colombia, Canda, USA, Braszil, Argentina, Indonesia, South Africa, Zimbabwe, Mozambeque and Zambia (GBIF Secrterate, 2021).

3- Family, Culicidae
Genus, ***Anopheles*** Meigen, 1818
Synonym: *Baimaia* Harbach, Rattanarithikul & Harrision, 2005

Anopheles sp.
Material Examined: 20 specimens (8 adults, 12 larval stages); 13 specimens (3 adults, 10 larvae), Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 31.vi.2019; 7 specimens (4 adults, 3 larvae), Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.
Distribution: Iraq (Abdulhasan *et al.*, 2009); worldwide distribution (Harbach and Kitching, 2016).

(C) Order, Ephemeroptera
1- Family, Baetidae
Genus, ***Procloeon*** Bengtsson, 1915
Synonyms: *Monilistylus* Kluge, 2020
Pseudocloëon Bengtsson, 1914

Procloeon sp.
Material examined: 15 specimens (3 adults, 12 nymph stages); 1 adult, 4 nymphs, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 31.v.2019; 2 adults, 8 nymphs, Thi- Qar Province, Al-Chibayish Marshes, 3.v.2021.
Distribution: This genus is distributed throughout the world; with excluding four species are recorded from the Oriental Region: *P. debilis* (Walker, 1860) from India (Kimmins, 1960); *P. tatualis* Waltz& McCafferty, 1985 from Taiwan (Waltz and McCafferty, 1985); *P. regularum* Müller-Liebenau & Hubbards, 1985 from Sri Lanka (Müller-Liebenau and Hubbard, 1985); and *P. spinosum* Nguyen & Bae, 2006 from Vietnam (Tungpairojwong *et al*., 2006). In Iraq this genus registered by (Abdulhasan *et al*., 2009).

2- Family, Caenidae
Genus, ***Caenis*** Stephens, 1835
Synonyms: *Austrocaenis* Barnard, 1932

Caeneus Eaton, 1888
Caenodes Ulmer, 1924
Caenomedea Thew, 1960
Caenus Agassiz, 1846
Ordella Campion, 1923
Oxycypha Burmeister, 1839
Pseudocaenis Soldan, 1978

Caenis sp.
Material examined: 8 nymph specimens; Thi- Qar Province, Al-Chibayish Marshes, 3.v.2021.
Distribution: Iraq (Abdulhasan *et al.*, 2009). Holarctic Region (Menetrey *et al*., 2008).

(**D) Order, Hemiptera**
1- Family, Belostomidae
Genus, ***Belostoma*** Latreille, 1807
Synonyms: *Belostomum* Burmeister, 1835
Perthostoma Leidy, 1847
Zaitha Amyot & Serville, 1843

Belostoma sp.
Material examined: 6 specimens; Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 9.vii.2016.
Distribution: Iraq (Ali *et al*., 2007); New World and Neotropical Region (Schuh and Weirauch, 2020).

Genus, ***Lethocerus*** Mayr, 1853
Synonyms: *Amorgius* Stål, 1866
Iliastus Gistel, 1847

Lethocerus patruelis (Stål, 1854)
Synonyms: *Belostoma cousinis* Stl, 1854
Lethocerus persicus (Montandon, 1898)
Material examined: 4 specimens; Thi-Qar Province, Al-Chibayish Marshes, 19. ix.2019.
Distribution: Iraq (Linnavuori, 1994); Known from the Balkan Peninsula and SW Asia to SE Asia (Linnavuori, 1994), Croatia (Kment and Beran, 2011), Israel (Novoselsky *et al*., 2018), Kuwait (Amr, 2021).

Lethocerus sp**.**
Material examined: 1specimens; Thi-Qar Province, Al-Chibayish Marshes, 19.ix.2019.
Distribution: It is distributed in tropical and subtropical also in temperate regions of the world; high divesity occurs in the Americas, with only one species in Europe, two in Africa, three in Asia and two in Australia (Lauck and Menke, 1961; Perez-Goodwyn, 2006).

2- Family, Corixidae

Genus, ***Corisella*** Lundblad, 1928

Corisella sp.

Material examined: 5specimens; Thi-Qar Province, Al-Chibayish Marshes, 19.ix.2019.

Distribution: Nearctic Region: USA and Canada (Hanson *et al*., 2007); Iraq (Abdulhasan *et al.*, 2009); Iran (Ahmadi *et al*., 2011).

Genus, ***Micronecta*** Kirkaldy, 1897

Synonyms: *Micronectella* Lundblad, 1933
Unguinecta Nieser, Chen & Yang, 2005

Micronecta isis Horváth, 1899

Material examined: 3specimens; Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 9.vii.2016.

Distribution: Widespread in the Ethiopian Region, also known from Egypt, the Arabian Peninsula, Iraq and Israel (Linnavuori, 1994).

Micronecta sp.

Material examined: 1 specimen, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vii.2019.

Genus, ***Sigara*** Fabricius, 1775

Synonym: *Sigera* Schellenberg, 1800

Sigara lateralis (Leach, 1818)

Synonyms: *Arctocorisa hieroglyphica* (Dufour, 1833)
Corisa hieroglyphica Dufour, 1833
Corixa hieroglyphica (Dufour, 1833)
Corixa lateralis Leach, 1818
Sigara hieroglyphica (Dufour, 1833)

Material examined: 11 specimens, Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.

Distribution: Iraq (Jaczewski, 1964); Kuwait (Al-Houty, 2011); Croatia (Kment and Beran, 2011); Iran (Ghahar, 2013); Ukraine (Grandova, 2013); Hungary (Boda *et al*., 2015); Slovakia (Klementova *et al*., 2015).

Sigara septemlineata (Paiva, 1918)

Synonym: *Corixa septemlineata* Paiva, 1981

Material examined: 3 specimens, Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.

Distribution: Iraq (Geraci *et al.*, 2011); Burma, Thailand, Vietnam, China, Taiwan, Korea, Russia and Japan (Insectomania, 2020).

3-Family, Gerridae

Genus, ***Gerris*** Fabricius, 1794
Synonyms: *Gerriselloides* Hungerford & Matsuda, 1958
Limnotrechus Stål, 1868

Gerris sp.
Material examined: 5 specimens, Thi-Qar Province, Al-Chibayish Marshes, 29.viii.2020.
Distribution: Iraq (Ali *et al.*, 2007); Worldwide (Henry and Froeschner, 1988).

4-Family, Macrovellidae
Genus, ***Macrovelia*** Uhler, 1872

Macrovelia hornii Uhler, 1872
Material examined: 7 specimens; Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.
Distribution: Iraq (Al-Edani and Kareem, 2015); USA (GBIF Secretariat, 2021).

5-Family: Mesovillidae
Genus, ***Mesovelia*** Mulsant & Ray, 1852
Synonym: *Fieberia* Jakovlev, 1873

Mesovelia furicata Mulsant &Ray, 1852
Synonyms: *Fieberia lacustris Jakovlev*, 1873
*Mesovelia fuscata M*ulsant & Rey, 1852
Mesovelia parra J. Sahlberg, 1875
Microvelia fuscata Mulsant & Rey, 1852
Material examined: 1 specimen; Thi-Qar Province, Al-Chibayish Marshes, 29.viii.2020.
Distribution: Iraq (Abdulhasan *et al.*, 2009); Australia (Andersen and Weir, 2004); Ukraine (Grandova, 2013); Hungary (Boda *et al*., 2015); Slovakia (Klementova *et al*., 2015); Croatia(Turić *et al*., 2017).

Mesovelia vittigera Horváth, 1895
Synonyms: *Mesovelia orientalis* Kirkaldy, 1901
Mesovelia proxima Schouteden, 1905
Material examined: 9 specimens; Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 9.vii.2016**.**
Distribution: Iraq (Al-Edani and Kareem, 2015); Croatia (Kment and Beran, 2011); Philippines (Zettel, 2014).

6-Family: Notonectidae
Genus, ***Buenoa*** Kirkaldy, 1904
Buenoa sp.
Material examined: 2 specimens; Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.
Distribution: Iraq (Abdulhasan *et al.*, 2009); Colombia, USA, Argentine, Mexico, Jamaica, Martinique, Costa Rica (GBIF Secretariat, 2021).

7-Family, Pleidae

Genus, ***Plea*** Leach, 1817

Plea minutissma (Leach, 1817)

Synonym: *Plea leachi* McGregor & Kirkaldy, 1899

Material examined: 12 specimens; Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.

Distribution: Liberian Peninsula (Garrido and Munilla, 2008); Iraq (Abdulhasan *et al*., 2009); Croatia (Kment and Beran, 2011); Ukraine (Grandova, 2013); Hungary (Boda *et al*., 2015); Slovakia (Klementova *et al*., 2015).

(E) Order, Hymenoptera

1- Family, Apidae

Genus, ***Apis*** Linnaeus, 1758

Synonyms: *Apiarus* Rafinesque, 1815
Apicula Rafinesque, 1814

Apis mellifera Linnaeus, 1758

Synonyms: *Apis adansonii* Latreille, 1804
Apis aenigmaticus Rayment, 1925
Apis australis Kiesenwetter, 1860
Apis caffra Lepeletier, 1836
Apis cerifera Gerstäcker, 1862
Apis cerifera Scopoli, 1770
Apis daurica Fischer von Waldheim, 1843
Apis fasciata Latreille, 1804
Apis gregaria Geoffroy, 1762
Apis intermissa Maa, 1953
Apis mellifica Linnaeus, 1761
Apis nigritarum Lepeletier, 1836
Apis siciliana Dalla Torre, 1896
Apis sicula Montgano, 1911

Materials Examined: 18 specimens, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 23.vii.2020.

Distribution: This species is most widespread, occurring throughout Europe, Africa, Northern Western Asia, Caucasia, and the Iranian Plateau (Ruttner, 2003; Sheppard and Meixner, 2003), as well as adventives in the Americas and Australia (Kerr, 1957; Moritz *et al*., 2005).

Genus, ***Xylocopa*** Latreille, 1802

Synonyms: *Hylocopa* Kirchner, 1857
Xilocopa Latreille, 1802

Xylocopa fenestrata (Fabricius, 1798)

Material examined: 7 specimens, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 19.vi.2020.
Distribution: Turkey (Wancke, 1982); Iraq (Derwesh, 1965); Syria, Iran, Pakistan, Nepal, India, Israel, Burma, China, Madagascar, Reunion (Guershon and Ionescu-Hirsch, 2012).

2-Family, Megachilidae
Genus, ***Coelioxys*** Latreille, 1809
Synonyms: *Caelioxys* Say, 1824
Coelioxis Germar, 1817

Coelioxys haemorrhoa Förster, 1853
Materials examined: 5 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 31.v.2020.
Distribution: Iraq (Derwesh, 1965). Southern Europe, from the Iberian Peninsula to Austria, and North Africa, to Central Asia (Ornosa *et al*., 2007).

3- Family, Scoliidae
Genus, ***Campsomeriella*** Betrem, 1941

Campsomeriella thoracica (Fabricius, 1787)
Synonym: *Scolia thoracica* Fabricius, 1787
Material Examined: 3 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 29.vi.2020.
Distribution: Saudi Arabia (Shalaby, 1961); Iran (Chahartaghi Abineh, 2002); Oman (Osten, 2005a); Crete, Cyprus, Dodecanese Is., Greek mainland, Italian mainland, Malta, North Aegean Is., North Africa, Sicily, Spanish mainland, Syria, Turkey (Fallahzadeh and Saghaei, 2010); Iraq (Khalaf, 1959).

Genus, ***Scolia*** J.C. Fabricius, 1775
Synonyms: *Ascoli* Guérin-Méneville, 1838
Lacosi Guérin-Méneville, 1838
Solia Dalla Torre, 1897

Scolia turkestanica Betrem, 1935
Material examined: 1 specimen, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 29.vi.2020.
Distribution: Armenia, Iran, Iraq, Turkey, Turkmenistan and Uzbekistan (Steinberg, 1962); Kirgizstan and Tadzhikistan (Osten, 2005 b).

Scolia flaviceps Eversmann, 1846
Materials examined: 11 specimens, Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 18.v.2020.
Distribution**:** Afghanistan, Iran, Iraq, Oman (Betrem, 1935); Turkey (Madl, 1997); Crete, Tadzhikistan, Turkmenistan, Uzbek.istan, Central Asia, Cyprus (Osten, 1999); France,

Italy, Egypt (Osten, 2000); Saudi Arabia and United Emirates (Osten *et al*., 2003); Greece (Osten and Arens, 2004).

4- Family, Vespidae

Genus, ***Delta*** Saussure, 1855

Synonyms: *Erinys* Zirngiebl, 1953
Phi Saussure, 1855

Delta esuriens (Fabricius, 1787)

Synonym: *Eumenes esuriens* Fabricius, 1804

Material examined: 11 specimens; Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 1. xi.2021.

Distribution: Iraq (Vecht and Fischer, 1972); India, Indonesia, Iran, Myanmar, Pakistan, Philippines, Saudi Arabia, Sri Lanka; Thailand, Vietnam (Nguyen *et al*., 2007); Thailand (Srinivasan and Kumar, 2010); Australia, Laos, Mauritius, Timor (Kumar, 2012).

Genus, ***Polistes*** Latreille, 1802

Synonyms: *Eupolistes* Dalla Torre, 1904
Leptpolistes Bluthgen, 1943
Polistula Weyrauch, 1938
Polistus Latreille, 1804
Pseudopolistes Weyrauch, 1937
Sulcopolistes Bluthgen, 1938

Polistes wattii Cameron, 1900

Material Examined: 2 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 1.xi.2020.

Distribution: Afghanistan, China, India, Iraq, Iran, Oman, Pakistan, Mauritius, Saudi Arabia and United Arab Emirates (Das and Gupta, 1989; Carpenter, 1996); Kazakhstan (Kazenas, 2014); Tajikistan (Castro and Dvorak, 2010), and Turkmenistan (Dubatolov, 2019).

Genus, ***Vespa*** Linnaeus, 1758

Synonym: *Macrovespa* Dalla Torre, 1904

Vespa orientalis Linnaeus, 1761

Synonyms: *Vespa aegyptiaca* André, 1884
Vespa aegyptiaca Vallot, 1802
Vespa fusca Christ, 1791
Vespa indica Wrought., 1889
Vespa jurinei de Saussure, 1854
Vespa quadripunctata Forskal, 1775
Vespa turcica Drury, 1773

Material examined: Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 1.xi.2016.

Distribution: Iraq (Morice, 1921); Northern part of Africa, Southeastern Europe, Southwest Asia across Turkey and Arabian Peninsula to India, and Nepal (Carpenter and Kojima, 1997; Archer, 1998); Mexico (Dvořák, 2006).

Genus, ***Odynerus*** Latreille, 1802

Synonyms: *Epipone* Kirby & Spence, 1815
Euepipona Dalla Torre, 1904
Hoplomerus Agassiz, 1846
Hoplopus Agassiz, 1846
Oplomerus Westwood, 1840
Oplopus Wesmael, 1836

Odynerus spinipes (Linnaeus, 1758)

Synonyms: *Hoplomerus scutellaris* Blüthgen, 1940
Odynerus amurensis Blüthgen, 1941
Odynerus flavicapus Mader, 1936
Odynerus flaviscapus Mader, 1936
Odynerus muticus Zetterstedt, 1839
Vespa quinquefasciata Fabricius, 1793

Material examined: 3 specimens; Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 30.x.2020.

Distribution: Europe, Turkey (Yıldırım and Kojima, 1999); this species is recorded in Iraq under the name *Hoplomerus spinipes* (Linnaeus, 1758) by Khalaf (1958).

Genus, ***Stenodynerus*** Saussure, 1863

Stenodynerus sp.

Material examined: 2 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 19.vi.2020.

Distribution: The genus of *Stenodynerus* distributes spreads along the Nearctic, Palearctic, Oriental and Neotropical regions (Carpenter, 1986).

(F) Order: Lepidoptera

1- Family: Crambidae

Genus, ***Parapoynx*** Hübner, 1825

Synonyms: *Eustales* Clemens, 1860
Microdracon Warren, 1890
Nymphaeella Grote, 1880

Parapoynx fluctuosalis (Zeller, 1852)

Synonyms: *Nymphula fluctuosalis* Zeller, 1852
Oligostigma chrysippusalis Walker, 1859
Oligostigma curta Butler, 1879
Oligostigma obitalis Walker, 1859

Parapoynx chrysippusalis (Walker, 1859)
Parapoynx curta (Butler, 1879)
Parapoynx linealis Guenée, 1854
Parapoynx obitalis (Walker, 1859)
Parapoynx oryzalis Wood-Mason, 1885

Material examined: 2 specimens, Thi- Qar Province, Al-Chibayish Marshes, 1.vi.2021.
Distribution: Oriental region (Speidel and Mey, 1999); China (Chen *et al*., 2006); Iraq (Abdulhasan *et al*., 2009); Africa (Agassi, 2012); Mauritius (Bippus, 2019); widespread in continental Africa, Southern Asia, Southern Palearctic region to Japan, Australasia and Pacific islands, also recorded from Puerto Rico" (de Prins and de Prins, 2019); India (Alex *et al*., 2021).

2- Family, Lycaenidae

Genus, ***Polyommatus*** Latreille, 1804

Polyommatus baeticus (Linnaeus, 1767)

Synonyms: *Cosmolyce baeticus* (Linnaeus, 1767)
Lycaena baetica (Linnaeus, 1767)
Papilio baeticus Linnaeus, 1767

Material Examined: 2 specimens, Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 3.vi.2020.
Distribution: Southern Europe, Africa, Tropical and Subtropical Asia, Australia (Forster, 1963); Iraq (Derwesh, 1965).

(G) Order, Odonata

1- Family, Aeshnidae

Genus, ***Aeshna*** Fabricius, 1775

Synonyms: *Aeschna* Fabricius, 1775
Aeschna Illiger, 1801
Oeshna Lamarck, 1817

Aeshna mixta Latreille, 1805

Synonyms: *Aeschna alpina* Selys, 1848
Aeschna habermayeri Götz, 1923
Aeschna mixta Latreille, 1805
Aeshna alpina Selys, 1848
Aeshna coluberculus Harris, 1782
Aeshna habermayeri Götz, 1923
Aeshna lucia Needham, 1930
Libellula coluberculus Harris, 1782

Material examined: 12 specimens (4 adults, 8 Naiads); Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.
Distribution: Iraq (Morton, 1919), Garisticki and Amr (2011) listed this species in Iraqi Marshes; Europe, Asia Minor and Central Asia, reaching Kashmir in the east, and North

Africa (Dumont, 1991; Steinmann, 1997); Iran (Heidari and Dumont, 2002); Turkey (Salur and Özsaraç, 2004); Mediterranean and North Africa (Boudot *et al*., 2009).

Genus, ***Anax*** Leach, 1815

Anax ephippiger (Burmeister, 1839)

Synonyms: *Aeschna ephippigera* Burmeister, 1839
Aeshna mediterranea Selys, 1839
Anax senegalensis Rambur, 1842
Anax marginope Baijal & Agarwal, 1955

Material examined: 3 specimens (adults), Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq **(**Morton, 1920) and listed this species in Iraqi Marshes. Garisticki and Amr (2011); Turkestan and India to South Africa and Madagascar south-central Europe (Steinmann, 1997); Cyprus (De Knijf and Demolder 2013); Turkey (Hacet, 2017).

Anax imperator Leach, 1815

Synonyms: *Aeschna azurea* Charpentier, 1825
Aeschna formosa Vander Linden, 1823
Aeschna lunata Kolenati, 1856
Aeshna formosa Vander Linden, 1823
Anax azurea Charpentier, 1825
Anax dorsalis Burmeister, 1839
Anax formosus Vander Linden, 1820
Anax lunatus Kolenati, 1856

Material examined: 7 specimens (adults); Thi-Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Asahina 1973,and listed in Iraqi Marshes (Abdulhasan *et al*., 2009); Turkey (Kalkman, 2006); Africa and through most of Europe, Arabian Peninsula, and south-western and central Asia (Mitra, 2016); Palestine (Adawi *et al*., 2017); Pakistan (Akbar *et al*., 2017); Iran (Schneideret *et al*., 2018).

Anax parthenope Selys, 1839

Synonyms: *Aeschna parthenope* Selys, 1839
Aeshna parthenope Selys, 1839
Anax bacchus Hagen, 1867
Anax major Götz, 1923
Anax parisinus Rambur, 1842

Material examined: 5 specimens: Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Morton, 1920), Garisticki and Amr (2011) reported listed this species for Iraqi Marshes. Jordon (Katebah- Bader *et al*., 2004); Hong Kong (Reels 2010); It is ranges from Europe and North Africa to the Arabian Peninsula, Siberia, India, China and Japan. In the West of Europe, also found now in Latvia, Poland, south of Sweden,

northern Germany and East of Ireland (Mitra and Clausnitzer, 2018); Kuwait (Amr, 2021).

2- Family, Calopterygidae

Genus, ***Calopteryx*** Leach, 1815

Calopteryx splendens Harris, 1780

Synonyms: *Agrion parthenias* Charpentier, 1840
Agrion splendens (Harris, 1780)
Calopteryx ludoviciana Leach, 1815
Calopteryx ludoviciana Selys, 1840
Calopteryx parthenias Charpentier, 1840
Calopteryx shachrudica Bartenef, 1916
Coenagrion splendens (Harris, 1780)
Libellula splendens Harris, 1780

Material examined: 3 adult specimens, Thi- Qar Province, Al-Chibayish Marshes, 31.iv.2021.

Distribution: Widely distributed in Palearctic Region (Sadeghi *et al*., 2010). Turkey (Salur and Özsaraç, 2004); Georgia (Schröter, 2010); Iraq (Gastecki and Amr, 2011); Iran (Schneideret *et al*., 2018).

3- Family, Coenagriidae

Genus, ***Ischnura*** Charpentier, 1840

Synonyms: *Anomalagrion* Selys, 1857
Ischnosoma Wallengren, 1894
Nanosura Kennedy, 1920

Ischnura elegans Vander Linden, 1820

Synonyms: *Agrion aglae* Boyer de Fonscolombe, 1838
Agrion elegans Vander Linden, 1820
Agrion hastulatum Burmeister, 1839
Agrion pupilla Hansemann, 1823
Ischnura aglae Fonscolombe, 1838
Ischnura aurantiaca Roster, 1886
Ischnura excelsa Roster, 1886
Ischnura exigua Roster, 1886
Ischnura ezonata Stephens, 1836
Ischnura hastulata Burmeister, 1839
Ischnura infuscans Campion & Campion, 1905
Ischnura lamellata Kolbe, 1885
Ischnura magna Roster, 1886
Ischnura pupilla Hansemann, 1823
Ischnura rufescens Stephens, 1836
Ischnura tuberculata Charpentier, 1825
Ischnura zonata Stephens, 1835

Material examined: 2 adult specimens, Thi-Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Abdulhassan *et al.*, 2009); It distributes from Spain in the West, to Japan in the East, and from Sweden in the North to Iran in the South (Boudot and Salamun, 2015); Georgia (Schröter, 2010); Turkey (Salur and Özsaraç, 2004).

Ischnura evansi Morton, 1919
Material examined: 3 specimens (1 naiad, 2 adults), Thi- Qar Province, Al-Chibayish Marshes, 31.iv.2021.
Distribution: Iraq Morton (1919), Garsetic and Amr (2011) listed this species in Iraqi marshes; Africa: Djibouti, Egypt and Sudan (Clausnitzer *et al*., 2012); Asia: Turkey (Asian part), Palestine, Jordan, Syria, Iran, UAE, Oman, Saudi Arabia, Qatar (GBIF Secretariat, 2021); Kuwait (Amr, 2021).

Ischnura fountaineae Morton, 1905
Synonyms: *Ischnura bukharensis* Bartenef, 1913
Ischnura fountainei Morton, 1905
Material examined: 1 adult specimen, Thi- Qar Province, Al-Chibayish Marshes, 31.iv.2021
Distribution: Iraq (Ashina, 1973), this species was listed by Garsetic and Amr (2011) in Marshes. It occurs across northern Africa from eastern Morocco to Egypt, east to Kazakhstan and westernmost China, Saudi Arabia, Qatar, United Arab Emirates and Oman (Boudot *et al*., 2015).

Ischnura senegalensis Rambur, 1842
Synonyms: *Agrion senegalense* Rambur, 1842
Agrion senegalensis Rambur, 1842
Enallagma brevispina Selys, 1876
Ischnura brevispina de Selys, 1876
Material examined: 7 adult specimens; Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 23.vi.2021.
Distribution: Iraq (Kalkman, 2009) this species was reported in Marshes by Garsetic and Amr (2011); Native from Africa, through the Middle East, to southern and eastern Asia (Sharma and Clausnitzer, 2016); Malasyia (Yen and Dawood, 2021).

4-Family, Corduliidae
Genus, ***Somatochlora*** Selys, 1871
Synonyms: *Chlorosoma* Charpentier, 1839
Somatachlora Brauner, 1902

Somatochlora sp.
Material examined: 1 adult specimen, Thi-Qar Province, Al-Chibayish Marshes, 31.iv.2021.
Distribution: Iraq (Abdulhasan *et al*., 2009); Member of this genus are found in Europe, Asia and North America (Cannings and Cannings, 1985); Turkey (Kalkman, and Wasscher, 2003); Taiwan (Zhang *et al*., 2014).

5- Family, Gomphidae

Genus, ***Anormogomphus*** Selys, 1854

Anormogomphus kiritshenkoi Bartenev, 1913

Material examined: 3 adult species; Thi-Qar Province, Al-Chibayish Marshes, 29.viii.2020.

Distribution: Iraq (Morton, 1919), Garsetic and Amr (2011) registered this species in the southern marshes. Iran (Heidari and Dumont, 2002); Turkey, Syria and Iran (Kalkman, 2006 b).

Genus, ***Lindenia*** Vander Linden, 1825

Lindenia tetraphylla Vander Linden, 1825

Synonyms: *Aeshna tetraphylla* Vander Linden, 1825
Lindenia inkiti Bartenef, 1929
Lindenia phyllura Eichwald, 1829
Lindenia praedator; Rambur, 1842

Material examined: 6 adult specimens; Thi-Qar Province, Al-Chibayish Marshes, 29.viii.2020.

Distribution: Iraq (Garstecki and Amr, 2011); it's a wide distribution range in most parts of Central and Southwest Asia, and eastern Mediterranean (Boudot and Kalkman, 2015). It was also found Tunisia (Kunz and Kunz, 2001), Iran (Heidari and Dumont, 2002), Italy (Terzani, 2002), Algeria (Boudot *et al*., 2009), Bulgaria (Gastarov and Beshkov, 2010), Georgia (Schröter, 2010), Kuwait (Amr, 2021).

Genus, ***Onychogomphus*** Selys, 1854

Synonyms: *Onigogomphus* Brauner, 1902
Paragomphus Cowley, 1934

Onychogomphus flexuosus Schneider, 1845

Synonym: *Gomphus flexuosus* Schneider, 1845

Material examined: 2 adult specimens; Thi-Qar Province, Al-Chibayish Marshes, 27.viii.2020.

Distribution: Iraq (Morton, 1919) and listed from marshes (Garstecki and Amr, 2011); Palestine (Morton, 1924); Caucasus (Zazanashvili and Mallon, 2009); Georgia (Schroter *et al*., 2015); Turkey (Salur and Özsaraç, 2004); Armenia (Ananain and Tailly, 2013); This species distributed from Anatolia and Jordan Valley to Tajikistan and Afghanistan (Kakman *et al*., 2009).

6-Family, Libellulidae

Genus, ***Brachythemis*** Brauer, 1868

Brachythemis fuscopalliata Selys, 1887

Material examined: 4 adult specimens; Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 9.vii.2016.
Distribution: Iraq (Morton, 1919), Ali *et al.* (2002) listed this species in Iraqi Marshes. Iran, Israel, Syria, and Turkey (GBIF Secretariat, 2021).

Genus, ***Crocothemis*** Brulle, 1832

Crocothemis erythraea Brullé, 1832
Synonyms: *Crocothemis coccinea* Charpentier, 1840
Crocothemis lorti Kirby, 1896
Crocothemis victoria Fourcroy, 1785
Libellula erythraea Brullé, 1832
Libellula ferruginea Vander Linden, 1825
Material examined: 2 adult species; Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.
Distribution: Iraq (Morton, 1919), Garstecki and Amr (2011) reported this species in Iraqi Marshes. Eastern Palearctic reaching the Netherlands (Hermans and Gubbels, 1997), Belgium (Knijf, 2003), south of England (Jones, 1996), Austria (Schweiger, 1983), Croatia (Trilar and Bedjanič, 1999), France (Rehfeldt, 1991), Germany (Müller, 1987). Also this species was registered in Asian part of Western Palearctic: Jordan (Schneider, 1985), Iran (Heidari and Dumont, 2002); Kazakhstan (Chaplina, 2004), Tajikistan (Borisov, 1987), Turkey (Hacet and Aktaç, 1997), Saudi Arabia (Schneider, 1995) and northern Africa: Tunisia (Jodicke, 2003); Kuwait (Amr, 2021).

Crocothemis servilia Drury, 1773
Synonyms: *Crocothemis ferruginata* Fabricius, 1781
Crocothemis flavostigma Navás, 1932
Crocothemis indica Sahni, 1965
Crocothemis novaguineensis Foerster, 1898
Crocothemis reticulata Kirby, 1886
Crocothemis soror Rambur, 1842
Libellula ferruginea Fabricius, 1793
Libellula servilia Drury, 1773
Libellula soror Rambur, 1842
Material examined: 9 adult specimens; Maysan Province, Hawizeh Marshes, Umm An-Ni'aaj, 9.vii.2016.
Distribution: Iraq (Morton, 1919), Garstecki and Amr (2011) reported this species in Iraqi Marshes. Iran (Heidari and Dumont, 2002); Armenia (Ananain and Tailly, 2013); its native to east and southeast Asia and introduced to Jamaica, Florida, and Hawaii (Subramanian *et al*., 2018); Kuwait (Amr, 2021).

Genus, ***Diplacodes*** Kirby, 1889

Diplacodes lefebvrii Rambur, 1842

Synonyms: *Diplacodes concinna* Rambur, 1842
Diplacodes flavistyla Rambur, 1842
Diplacodes limbata Fraser, 1949
Diplacodes morio Schneider, 1845
Diplacodes parvula Rambur, 1842
Diplacodes spinulosa Navás, 1915
Diplacodes tetra Rambur, 1842
Diplacodes unimacula Foerster, 1906
Libellula lefebvrii Rambur, 1842

Material examined: 3 adult specimens, Thi-Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Morton, 1919), Garstecki and Amr (2011) reported this species in Iraqi Marshes. ; Iran (Heidari and Dumont, 2002); widespread and common Afrotropical species that extends to southern (KalKman *et al.*, 2009); Africa, India, Israel, Spain, Portugal, Oman, UAE, Italy (GBIF Secretariat, 2021).

Genus, ***Orthetrum*** Newman, 1833

Orthetrum sabina Drury, 1773

Synonyms: *Lepthemis divisa* Selys, 1878
Libellua leptura Burmeister, 1839
Libellula ampullacea Schneider, 1845
Libellula gibba Fabricius, 1798
Libellula sabina Drury, 1770
Orthetrum ampullacea Schneider, 1845
Orthetrum divisum Selys, 1878
Orthetrum gibba Fabricius, 1798
Orthetrum leptura Burmeister, 1839
Orthetrum nigrescens Bartenef, 1929
Orthetrum viduatum Lieftinck, 1942

Material examined: 5 specimens: (4 adults); Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 31.vi.2019; 1adult, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Morton, 1919), Garstecki and Amr (2011) reported this species in Iraqi Marshes. Iran (Heidari and Dumont, 2002); Armenia (Ananain and Tailly, 2013); Kuwait (Amr, 2021); Malasyia (Yen and Dawood, 2021). Australia, Indonesia, Singapore, Thailand, India, UAE, Malaysia, Papua New Guinea, China, Hong Kong, Chinese Taipei, Bangladesh, Cyprus, Macao (GBIF Secretariat, 2021).

Orthetrum taeniolatum Schneider, 1845

Synonyms: *Libellula taeniolata* Schneider, 1845
Orthetrum brevistylum Kirby, 1896
Orthetrum garhwalicum Singh & Baijal, 1954
Orthetrum hyalianum Kirby, 1886
Orthetrum hyalinum Kirby, 1886

Material examined: 2 adult specimens, Thi-Qar Province, Al-Chibayish Marshes, 3.vii.2021.
Distribution: Iraq (Morton, 1919), Garstecki and Amr (2011) reported this species in Iraqi Marshes. Its distribution spreads from Eastern Europe to China (Mitra, 2013); Kuwait (Amr, 2021).

Orthetrum trinacria Selys, 1841
Synonyms: *Libellula trinacria* Selys, 1841
Orthetrum bremii Rambur, 1842
Orthetrum clathrata Rambur, 1842
Material examined: 3adult specimens, Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.
Distribution: Iraq (Morton, 1919), Garstecki and Amr (2011) reported this species in Iraqi Marshes. Iran (Heidari and Dumont, 2002); widespread in Africa and common in the north extending east to Sudan, Egypt and the Middle East. In Europe, this species distribute from Sicily and recently recorded in Sardinia and Spain (Belle, 1984; Askew, 2004).

Orthetrum chrysostigma Burmeister, 1839
Synonyms: *Libellula barbara* Selys, 1849
Libellula chrysostigma Burmeister, 1839
Orthetrum barbarum Selys, 1849
Material examined: 4 adult specimens; Maysan Province: Hawizeh Marshes, Umm An-Ni'aaj, 31.vi.2019.
Distribution: Iraq (Augul *et al*., 2016); Algeria, Angola, Benin, Botswana, Burkina Faso, Cameroon, Chad, Congo, Côte d'Ivoire, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Greece Guinea, Iran, Israel, Jordan, Kenya, Lebanon, Liberia, Libya, Malawi, Mali, Mauritania, Morocco, Mozambique, Namibia, Niger, Nigeria, Oman, Palestine, Portugal, Rwanda, Saudi Arabia, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Spain, Sudan, Syria, Tanzania, Togo, Tunisia, Turkey, Uganda, UAE, Yemen, Zambia and Zimbabwe (Boudot, 2016).

Genus, ***Pantala*** Hagen, 1861

Pantala flavescens Fabricius, 1798
Synonyms: *Libellula analis* Burmeister, 1839
Libellula flavescens Fabricius, 1798
Libellula terminalis Burmeister, 1839
Libellula viridula Palisot de Beauvois, 1807
Orthetrum mathewi Singh & Baijal, 1955
Pantala analis Burmeister, 1839
Pantala mathewi Singh & Baijal, 1954
Pantala tandicola Singh, 1955
Pantala terminalis Burmeister, 1839

Pantala viridula Palisot de Beauvois, 1807
Sympetrum tandicola Singh, 1955

Material examined: 7 specimens (5 adults, 2 naiads); Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Garstecki and Amr, 2011); Cyprus, Egypt, Israel, Jordon, Lebanon, Turey (Kalkman *et al.*, 2009); Colorado (Kondarteiff and Durfee, 2010); Malasyia (Yen and Dawood, 2021); USA, Argentina, Brazil, Panama, Ecuador, Mexico, Peru, Uruguay, Bolivia, Guatemala, South Africa, Botswana, Madagascar, Congo, Zimbabwe, Zambia, Namibia, UAE, Cambodia, Thailand, China, Chinese Taipei, Hong Kong, India, Indonesia, Sir Lanka, Australia, Papua New Guinea (GBIF Secretariat, 2021).

Genus, ***Selysiothemis*** Vander Linden, 1825

Selysiothemis nigra Vander Linden, 1825

Synonyms: *Libellula nigra* Vander Linden, 1825
Selysiothemis advena Selys, 1878

Material examined: 1 adult specimen; Thi-Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Morton, 1919), Garstecki and Amr (2011) listed this species in Iraqi Marshes. This species is mainly a distribution from central Asia, the Middle East and Arabia; also extends into the western Mediterranean and northern African (Boudot, 2010). Iran (Heidari and Dumont, 2002); Armenia (Ananain and Tailly, 2013); Kuwait (Amr, 2021).

Genus, ***Sympetrum*** Newman, 1833

Synonyms: *Diplax* Burmeister, 1839
Sympertum Brauner, 1902
Tarnetrum Needham & Fisher, 1936

Sympetrum arenicolor Jödicke, 1994

Synonym: *Sympetrum deserti* Jödicke, 1994

Material examined: 4 adult specimens; Thi-Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Kalkman, 2006; Ali and Khidhir, 2015), Garstecki and Amr (2011) listed this species in Iraqi Marshes. Afghanistan, Armenia, Azerbaijan, India, Iran, Israel, Kazakhstan, Kyrgyzstan, Syria, Tajikistan, Turkey and Turkmenistan **(**Malikova, 2009); Georgia (Schröter, 2010).

Sympetrum fonscolombii Selys, 1840

Synonyms: *Libellula fonscolombii* Selys, 1840
Sympetrum azorense Gardner, 1959
Sympetrum erythroneura Schneider, 1845
Sympetrum insignis Brittinger, 1850
Sympetrum rhaeticum Buchecker, 1873

Tarnetrum fonscolombii (Selys, 1840)

Material examined: 4 adult specimens; Thi- Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Morton, 1919), Garstecki and Amr (2011) registered this species in Iraqi Marshes. Afghanistan, Albania, Algeria, Angola, Armenia, Austria, Azerbaijan, Bahrain, Bangladesh, Belgium, Bhutan, Botswana, Bulgaria, Burundi, Cameroon, Chad, Croatia, Cyprus, Czech, Egypt, Eritrea, Eswatini, Ethiopia, France, Gambia, Georgia, Germany, Greece, Guinea, Hungary, India, Iran, Iraq, Israel, Italy, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Latvia, Lebanon, Libya, Luxembourg, Madagascar, Mali, Malta, Mauritania, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nepal, Netherlands, Niger, North Macedonia, Oman, Pakistan, Palestine, Poland, Portugal, Qatar, Romania, Russian Federation, Rwanda, Réunion, Saudi Arabia, Senegal, Serbia, Slovakia, Slovenia, Somalia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syria,Tajikistan, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, UAE, UK, Uzbekistan, Yemen, Zambia and Zimbabwe **(**Clausnitzer, 2013).

Sympetrum striolatum Charpentier, 1840

Synonyms: *Libellula striolata* Charpentier, 1840
Sympetrum neglectum Artobolevsky, 1928
Sympetrum nigrescens Lucas, 1912
Sympetrum ruficollis Charpentier, 1840

Material examined: 1 adult specimen; Thi- Qar Province, Al-Chibayish Marshes, 29.viii.2020.

Distribution: Iraq (Kalkman, 2006), Garstecki and Amr (2011) listed this species in Iraqi Marshes. Albania, Algeria, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, China, Croatia, Cyprus, Czech, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iran, Ireland, Israel, Italy, Japan, Korea, Korea, Latvia, Lebanon, Lithuania, Luxembourg, Malta, Moldova, Monaco, Mongolia, Montenegro, Morocco, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland. Syria, Tajikistan, Tunisia, Turkey, Ukraine, United Kingdom and Uzbekistan (Clausnitzer, 2020).

Genus, ***Trithemis*** Brauer, 1868

Trithemis annulata Palisot de Beauvois, 1807

Synonyms: *Libellula annulata* Palisot de Beauvois, 1807
Libellula haematina Rambur, 1842
Trithemis obsoleta Rambur, 1842
Trithemis rubrinervis Selys, 1841
Trithemis violacea Sjöstedt, 1899

Material examined: 2 adult specimens; Thi-Qar Province, Al-Chibayish Marshes, 5.vii.2021.

Distribution: Iraq (Garstecki and Amr 2011); Iran (Heidari and Dumont, 2002); Kuwait (Amr, 2021).

Trithemis festiva Rambur, 1842

Synonyms: *Libellula festiva* Rambur, 1842
Libellula infernalis Brauer, 1865
Trithemis cyprica Selys, 1887
Trithemis infernalis Brauer, 1865
Trithemis proserpina Selys, 1878
Trithemis prosperina Selys, 1878

Material examined: 3 adult specimens; Thi-Qar Province, Al-Chibayish Marshes, 3.vii.2021.

Distribution: Iraq (Garstecki and Amr 2011); Iran (Heidari and Dumont, 2002); Malasyia (Yen and Dawood, 2021).

7- Family, Lestidae

Genus, ***Sympecma*** Selys, 1840

Sympecma paedisca Brauer, 1877

Synonyms: *Sympecma annulata* Selys, 1887
Sympecma braueri Yakobson & Bianki, 1904
Sympecma kashmirensis Ander, 1944
Sympecma striata St Quentin, 1963
Sympycna braueri Bianchi, 1904
Sympycna paedisca Brauer, 1877

Material examined: 1 adult specimens; Thi- Qar Province, Al-Chibayish Marshes, 2.vii.2021.

Distribution: Iraq (Asahina, 1973); Iran (Heidari and Dumont, 2002); Armenia (Ananain and Tailly, 2013).

CONFLICTS OF INTEREST STATMENT

"The authors have no conflicts of interest to declare".

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مسح للحشرات في بعض اهوار جنوب العراق

هناء هاني الصفار و رزاق شعلان عكل
مركز بحوث و متحف التاريخ الطبيعي، جامعة بغداد، بغداد، العراق.

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الخلاصة

تضمنت التحريات الحالية مسح و مراجعة للاسماء العلمية لحشرات الاهوار (المائية وما حولها) لتكون قاعدة بيانات موحدة و محدثة.

اظهر المسح 109نوعا تعود الى 77 جنسا ضمن 32 عائلة و 7 رتب و كما ياتي :رتبة غمدية الاجنحة: 44 نوعا ، رتبة ثنائية الاجنحة:7 انواع، رتبة ذبابة مايو: نوعين ، و رتبة نصفية الاجنحة: 14 نوعا، رتبة غشائية الاجنحة: 11 نوعا ، حرشفية الاجنحة: نوعين، و رتبة الرعاشات: 29 نوعا.

تضمن التحري مراجعة الاسماء العلمية الشرعية و مرادفاتها و توزيعها الجغرافي العالمي و مكان و تاريخ الجمع للعينات المدروسة.