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**Research Article****Distributional records of Acridid grasshoppers (Orthoptera) of Sufi Anwar Safari Park Ghotki, Sindh, Pakistan**Kaleemullah¹, Waheed Ali Panhwar¹, Naheed Baloch¹, Bhoojo Mal², Hani Ahmed Ibrahim³, Abdul Manan Shaikh²¹Department of Zoology, University of Sindh Jamshoro, Sindh, Pakistan.²Department of Zoology, Government College University Hyderabad, Sindh, Pakistan.³Department of Biology, College Education, Akre University for Applied Sciences, Kurdistan region, Iraq.**ABSTRACT**

Grasshoppers are regarded as serious plant pests thus causing severe harm to forests, orchards, fruits, vegetables and agricultural lands. A variety of locations within the Sufi Anwar Shah Safari Park in Ghotki, Sindh, Pakistan were surveyed in order to collect the Acrididae grasshoppers. Between January and December of 2024, specimens were gathered. The specimens were identified into ten subfamilies within the single family Acrididae with 18 genera : *Acrida* Linnaeus, 1758, *Truxalis* Fabricius, 1775, *Phlaeoba* Stål, 1861, *Duroniella* Bolívar, 1908, *Anacridium* Uvarov, 1923, *Cyrtacanthacris* Walker, 1870, *Patanga* Uvarov, 1923, *Eyprepocnemis* Fieber, 1853, *Heteracris* Walker, 1870, *Ochrilidia* Stål, 1873, *Spathosternum* Krauss, 1877, *Hieroglyphus* Krauss, 1877, *Oxya* Serville, 1831, *Trilophidia* Stål, 1873, *Acrotylus* Fieber, 1853, *Acorypha* Krauss, 1877, *Calliptamus* Serville, 1831, *Diabolocatantops* Jago, 1984 and 25 species : *Acrida exaltata* (Walker, 1859), *Acrida gigantea* (Herbst, 1786), *Truxalis eximia eximia* Eichwald, 1830, *Truxalis fitzgeraldi* Dirsh, 1950, *Phlaeoba tenebrosa* (Walker, 1871), *Phlaeoba infumata* Brunner von Wattenwyl, 1893, *Duroniella laticornis* (Krauss, 1909), *Anacridium aegyptium* (Linnaeus, 1764), *Cyrtacanthacris tatarica tatarica* (Linnaeus, 1758), *Patanga japonica* (Bolívar, 1898), *Eyprepocnemis alacris alacris* (Serville, 1838), *Heteracris littoralis* (Rambur, 1838), *Heteracris adspersa* (Redtenbacher, 1889), *Ochrilidia geniculata* (Bolívar, 1913), *Ochrilidia gracilis* (Krauss, 1902), *Spathosternum prasiniferum* (Walker, 1871), *Hieroglyphus nigrorepletus* Bolívar, 1912, *Oxya hyla* Serville, 1831, *Trilophidia annulata* (Thunberg, 1815), *Acrotylus humbertianus* Saussure, 1884, *Acrotylus longipes* (Charpentier, 1845), *Acorypha glaucopsis* (Walker, 1870), *Calliptamus barbarus* (Costa, 1836), *Calliptamus italicus* (Linnaeus, 1758), *Diabolocatantops innotabilis* (Walker, 1870). All the reported species are first time recorded from this locality. Hopefully, this study will be a baseline study for future Orthopterists of Pakistan.

Keywords: Distribution; genera; Orthoptera; species; Pakistan.**INTRODUCTION**

Grasshoppers and Locusts belongs to order Orthoptera family Acrididae. They are the pests of fruits, forests, orchards, agricultural lands and vegetables (Ali & Panhwar, 2017; Rasheed et al., 2024). Grasshoppers are beneficial for many studies concerned with their body size and can be effortlessly collected from the host plants on which they feed. The presence of grasshoppers on host plants, their pest status, and easier capturing make them foremost amongst invertebrate group as well as specify them as sign for biological indicators (Soomro & Wagan, 2005; Memon & Panhwar, 2021). They are considered as chief source as a food by predators such as birds, reptiles, mantises etc. The grasshoppers are comprised of two main groups Short horned grasshoppers (Caelifera) and Long horned grasshoppers (Ensifera).

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About 49 species of long horned grasshoppers have been reported from Pakistan, while 170 species of short horned grasshoppers have been reported from Pakistan (Zafar, 2015; Panhwar et al., 2016; Panhwar et al., 2025). Acrididae family comprises short horned grasshoppers thus making this family is more prevailing among Orthoptera around the globe (Hassan & Aslam, 2024). The Acrididae family of grasshoppers holds significant economic relevance owing to their substantial detrimental impact on agricultural crops, categorising them as prominent pests of various plant species. The significance of these plants lies in their production efficiency and their nutritional contributions. The Acrididae family of grasshoppers and locusts has historically attacked numerous crops, resulting in significant and harmful effects on agricultural production (Khan et al., 2021; Hussain et al., 2017). Studies on Acrididae biodiversity showed presence of 97 species in Sindh Province (Wagan, 1990). Survey of grasshoppers from Punjab province of Pakistan resulted in finding of 39 species (Baloch, 2002). Taxonomic studies on Oedipodinae from Sindh resulted in presence of 32 species (Bughio, 2012). Studies on genus *Hieroglyphus* showed the presence of four species including one new species to science i-e: *Hieroglyphus akbari* (Sultana & Wagan, 2012). Biodiversity of Orthoptera in district Tharparkar revealed presence of 29 species (Sultana et al. 2013). More recently, 24 species of grasshoppers have been reported from Baluchistan Pakistan (Panhwar et al., 2025).

There is no such sight since the animals at Sufi Anwar Shah Safari Park, which was founded in 2008 by the Sindh government and the UN Environment Program in the Ghotki area of the southern Sindh province, are not kept in cages. The 2,400-acre park provides natural habitats for wildlife and is home to several native species, including hog deer, black bucks, blue bulls, chinkara, pea fowl, grey and black partridges, and insects. Animals are given their native habitat, and it is controlled scientifically. In addition to more than 90 creatures, such as mammals, reptiles, and Sindh birds, the park is home to 56 distinct kinds of wild flora. This park's habitat makes it the perfect place for Acrididae and other insect biodiversity. The Acrididae fauna of Sufi Anwar Shah Safari Park in Ghotki, Sindh, Pakistan, has not received any attention despite several research on various aspects of the Acrididae from other locations of Sindh. Therefore, research on Acrididae from the area is proposed in this study.

MATERIALS AND METHODS

A comprehensive investigation were conducted from January to December 2024 at different spots within Shah Safari Park in Ghotki, Sindh, Pakistan. The samples were collected with the help of entomological aerial nets and samples were taken into plastic jars to advanced Entomological Laboratory, Department of Zoology University of Sindh, Jamshoro. A total of 146 specimens were captured. For the collected species the maximum diversity was recorded for *Spathosternum prasinerum* followed by *Oxya hyla* and *Acrotylus humbertianus* (Table 1 & Figure 1). The samples were euthanized with potassium cyanide, samples were properly pinned, and wings were stretched and were preserved into insect boxes. Identification of samples up to species level was done by existing literature and "http://Orthoptera.SpeciesFile.org". The nomenclature of Cigliano et al. (2025) was followed. The digital images of taxa were taken with help of Canon Camera R model (Figure 2).

RESULTS AND DISCUSSION

Acrididae MacLeay, 1821

Acridinae MacLeay, 1821

Acrida Linnaeus, 1758

Acrida exaltata (Walker, 1859)

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 10.iii.2024, 1♂2♀ leg. Kaleemullah; same but, 25.v.2024, 1♂1♀ leg. Kaleemullah; same but, 03.viii.2024, 1♀, leg. Kaleemullah.

Comments

Panhwar et al. (2023) listed this species in Hunza locality of Kashmir, Pakistan. Mustafa et al. (2024) reported this species from tehsil Ratodero of district Larkana Sindh Pakistan. While presenting the list of Acrididae of Pakistan Sultana and Song (2024) showed the presence of this species in Sindh, Baluchistan, Punjab Azad Kashmir and Khyber Pakhtunkwa regions of Pakistan.

Acrida gigantea (Herbst, 1786)

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 05.iv.2024, 1♀ leg. Kaleemullah & Sarki; same but, 18.vi.2024, 1♂ leg. Kaleemullah & Panhwar.

Comments

Suhail et al. (1999) reported this species from various ecological zones of Pakistan. Usmani et al. (2013) reported this species from Uttar Pradesh, India. They also stated that this species causes severe damage to paddy crop. Hussain et al. (2017) recorded this species from Sialkot locality of Punjab, Pakistan. Recently, Sultana and Song (2024) enlisted the presence of this species in Sindh and Punjab provinces of Pakistan.

Table 1. Showing number and percentage of collected species.

Species	No. of Samples (n=146)	Percentage (%)
<i>Acrida exaltata</i> (Walker, 1859)	6	4.10
<i>Acrida gigantea</i> (Herbst, 1786)	2	1.36
<i>Truxalis eximia eximia</i> Eichwald, 1830	4	2.73
<i>Truxalis fitzgeraldi</i> Dirsh, 1950	5	3.42
<i>Phlaeoba tenebrosa</i> (Walker, 1871)	5	3.42
<i>Phlaeoba infumata</i> Brunner von Wattenwyl, 1893	3	2.05
<i>Duroniella laticornis</i> (Krauss, 1909)	2	1.36
<i>Anacridium aegyptium</i> (Linnaeus, 1764)	9	6.16
<i>Cyrtacanthacris tatarica tatarica</i> (Linnaeus, 1758)	3	2.05
<i>Patanga japonica</i> (Bolívar, 1898)	3	2.05
<i>Eyrepocnemis alacris alacris</i> (Serville, 1838)	7	4.79
<i>Heteracris littoralis</i> (Rambur, 1838)	6	4.10
<i>Heteracris adspersa</i> (Redtenbacher, 1889)	3	2.05
<i>Ochrilidia geniculata</i> (Bolívar, 1913)	5	3.42
<i>Ochrilidia gracilis</i> (Krauss, 1902)	2	1.36
<i>Spathosternum prasiniferum</i> (Walker, 1871)	25	17.12
<i>Hieroglyphus nigrorepletus</i> Bolívar, 1912	3	2.05
<i>Oxya hyla</i> Serville, 1831	17	11.64
<i>Trilophidia annulata</i> (Thunberg, 1815)	6	4.10
<i>Acrotylus humbertianus</i> Saussure, 1884	14	9.58
<i>Acrotylus longipes</i> (Charpentier, 1845)	6	4.10
<i>Acorypha glaucopsis</i> (Walker, 1870)	3	2.05
<i>Calliptamus barbarus</i> (Costa, 1836)	3	2.05
<i>Calliptamus italicus</i> (Linnaeus, 1758)	2	1.36
<i>Diabolocatantops innotabilis</i> (Walker, 1870)	2	1.36

***Truxalis* Fabricius, 1775**

***Truxalis eximia eximia* Eichwald, 1830**

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 10.iii.2024, 1♂1♀ leg. Kaleemullah; same but, 25.v.2024, 1♂1♀ leg. Kaleemullah.

Comments

Panhwar (2018) during his expedition reported *Truxalis eximia eximia* Eichwald, 1830 from Gorakh Hill station, Dadu Sindh Pakistan. Mustafa et al. (2024) reported this species from tehsil Ratodero of district Larkana Sindh Pakistan.

***Truxalis fitzgeraldi* Dirsh, 1950**

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 13.vii.2024, 2♀ 1♂ leg. Kaleemullah & Sarki; same but, 9.x.2024, 1♂1♀ leg. Kaleemullah & Sarki.

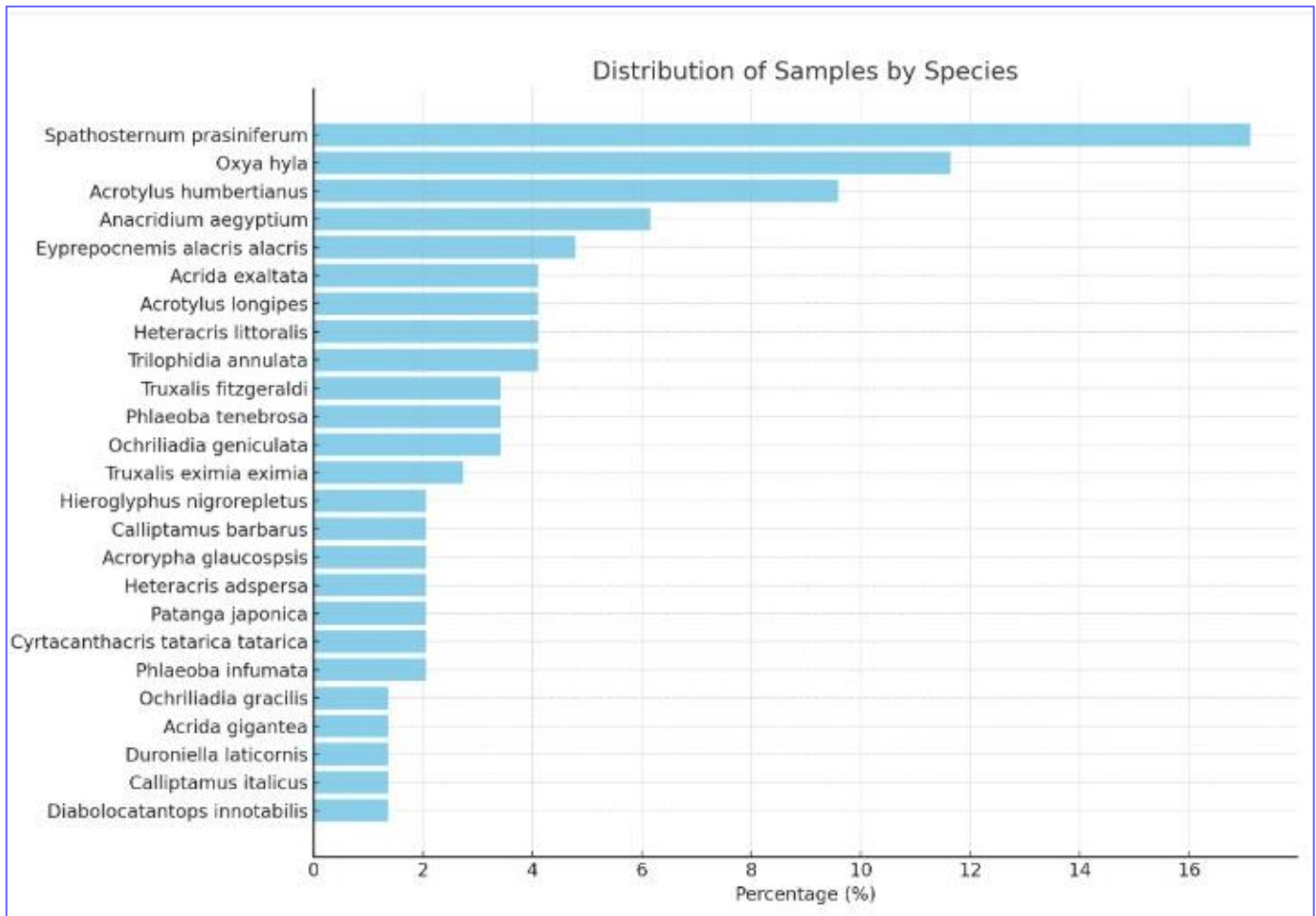


Figure 1. Showing distribution of grasshoppers' species.

Comments

Massa et al. (2010) reported this species United Arab Emirates (UAE). Sultana and Song (2024) enlisted this species in Punjab, Sindh, Khyber Pakhtunkhwa and Baluchistan regions of Pakistan.

Phlaeoba Stål, 1861

Phlaeoba tenebrosa (Walker, 1871)

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 10.iii.2024, 1 ♀ 2 ♂ leg. Kaleemullah & Kumar; same but, 18.ix.2024, 1 ♂ 1 ♀ leg. Kaleemullah & Chakrani.

Comments

Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Panhwar (2018) during his expedition reported this species from vicinity of Gorakh Hill. Baba et al. (2022) recorded this species from Kashmir, India.

Phlaeoba infumata Brunner von Wattenwyl, 1893

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 9.iii.2024, 1 ♀ 1 ♂ leg. Kaleemullah & Chakrani; same but, 19.ix.2024, 1 ♀ leg. Kaleemullah.

Comments

Suhail et al. (1999) reported this species from various ecological zones of Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Sultana and Song (2024) listed the presence of this species in Sindh and Punjab province of Pakistan.

Duroniella Bolívar, 1908

Duroniella laticornis (Krauss, 1909)

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 05.iv.2024, 1 ♀ 1 ♂ leg. Kaleemullah & Panhwar.

Comments

Suhail et al. (1999) reported this species from various ecological zones of Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Sultana and Song (2024) listed the presence of this species in all regions of Pakistan.

Cyrtacanthacridinae Kirby, 1910

Anacridium Uvarov, 1923

Anacridium aegyptium (Linnaeus, 1764)

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 8.iii.2024, 3♀ 1♂ leg. Kaleemullah & Kumar; same but, 17.ix.2024, 2♂3♀ leg. Kaleemullah & Chakrani.

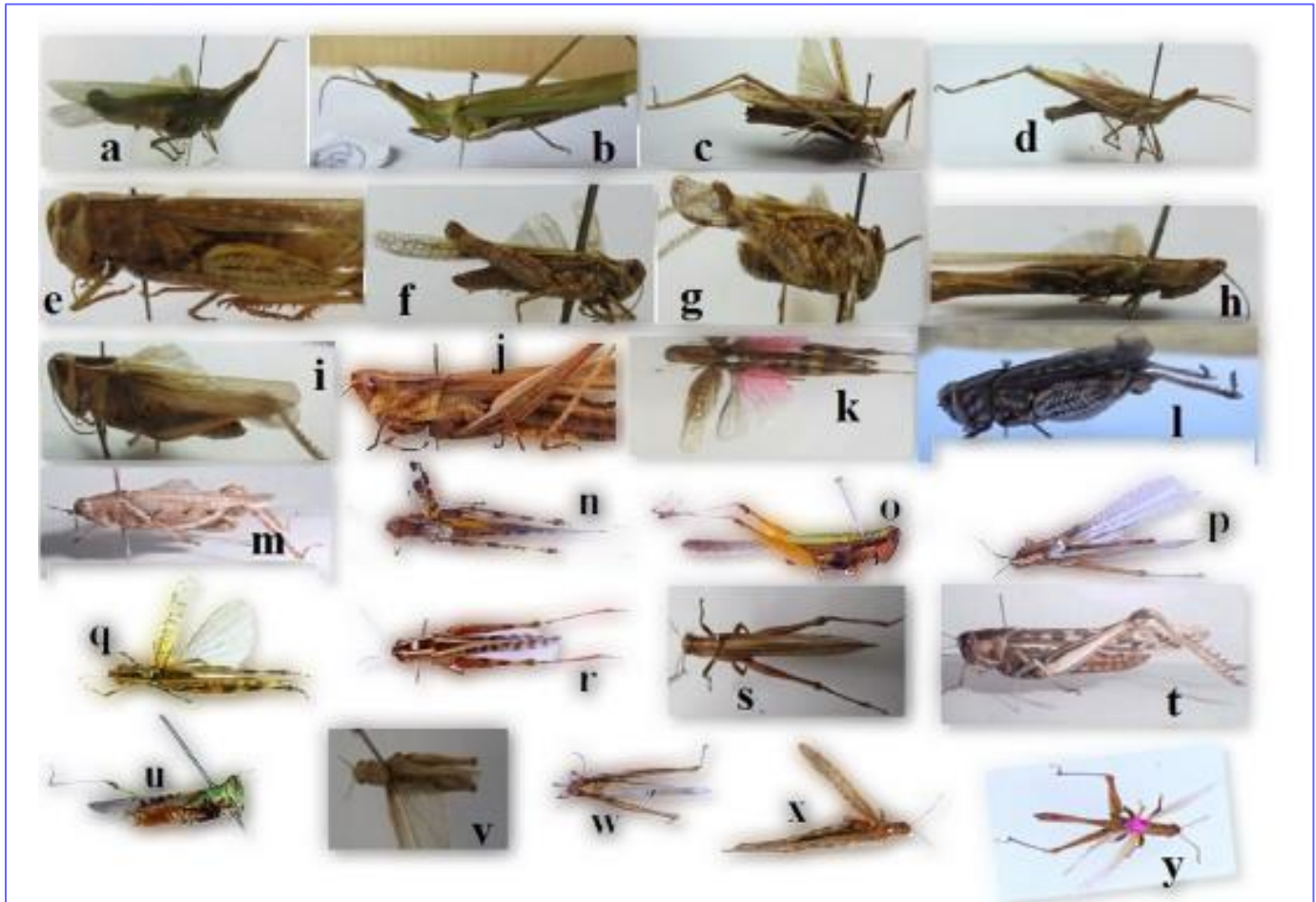


Figure 2. a *Acrida exaltata*, b; *Acrida gigantea*, c; *Truxalis eximia eximia*, d; *Truxalis fitzgeraldi*, e; *Acorypha glaucopsis*, f; *Acrotylus longipes*, g; *Acrotylus humbertianus*, h; *Ochrilidia gracilis*, i; *Eyprepocnemis alacris alacris*, j; *Phlaeoba infumata*, k; *Calliptamus italicus*, l; *Calliptamus barbarus*, m; *Diabolocatantops innotabilis*, n; *Trilophidia annulata*, o; *Spathosternum prasiniferum*, p; *Ochrilidia geniculata*, q; *Heteracris adspersa*, r; *Heteracris littoralis*, s; *Patanga japonica*, t; *Cyrtacanthacris tatarica tatarica*, u; *Spathosternum prasiniferum*, v; *Duroniella laticornis*, w; *Phlaeoba tenebrosa*, x; *Anacridium aegyptium*, y; *Hieroglyphus nigrorepletus*

Comments

Panhwar (2018) during his expedition reported this species from vicinity of Gorakh Hill. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Sultana and Song (2024) listed the presence of this species in all regions of Pakistan. More recently, Panhwar et al., (2024) reported this species from Khairpur district of Sindh, Pakistan.

Cyrtacanthacris Walker, 1870

Cyrtacanthacris tatarica tatarica (Linnaeus, 1758)

Material examined

Sindh: Ghotki Sufi Anwar Safari Park, 05.iv.2024, 1♀ 1♂ leg. Kaleemullah & Sarki; same but, 18.vi.2024, 1♂ leg. Kaleemullah.

Comments

Panhwar (2018) during his expedition reported this species from vicinity of Gorakh Hill. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Sultana and Song (2024) listed the presence of this species only in Sindh province of Pakistan.

Patanga Uvarov, 1923***Patanga japonica (Bolívar, 1898)*****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 15.ix.2024, 2♀ 1♂ leg. Kaleemullah & Sarki.

Comments

Wagan & Riffat (2013) reported this species from Khyber Pakhtunkwa province of Pakistan. Nazir et al., (2014) reported 4♀1♂ from Rawalakot and 5♀3♂ from Trarkhel Pakistan.

Eyprepocnemidinae Brunner von Wattenwyl, 1893***Eyprepocnemis Fieber, 1853******Eyprepocnemis alacris alacris (Serville, 1838)*****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 10.iii.2024, 1♀ 1♂ leg. Kaleemullah & Kumar; same but, 18.ix.2024, 2♂3♀ leg. Kaleemullah & Chakrani.

Comments

Wagan & Riffat (2013) reported this species from reported this species from Sindh, Punjab, Baluchistan and Khyber Pakhtunkhwa provinces of Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan.

Heteracris Walker, 1870***Heteracris littoralis (Rambur, 1838)*****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 2.viii.2024, 2♀ 2♂ leg. Kaleemullah & Panhwar; same but, 10.x.2024, 1♂1♀ leg. Kaleemullah & Chandio.

Comments

Wagan & Riffat (2013) reported this species from reported this species from Sindh, Punjab, Baluchistan and Khyber Pakhtunkhwa provinces of Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al., (2023) reported this species from Punjab region of Pakistan. More recently, Panhwar et al. (2024) reported this species from Khairpur district of Sindh, Pakistan.

Heteracris adspersa (Redtenbacher, 1889)**Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 2.viii.2024, 1♀ 1♂ leg. Kaleemullah & Panhwar; same but, 10.x.2024, 1♀ leg. Chandio.

Comments

Wagan & Riffat (2013) reported this species from reported this species from Sindh, Punjab, Baluchistan and Khyber Pakhtunkhwa provinces of Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al., (2023) reported this species from Punjab region of Pakistan.

Gomphocerinae Fieber, 1853***Ochrilidia Stål, 1873******Ochrilidia geniculata (Bolívar, 1913)*****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 9.iii.2024, 2♀ 1♂ leg. Kaleemullah & Chakrani; same but, 18.ix.2024, 2♀ leg. Kaleemullah.

Comments

Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al., (2023) reported this species from Punjab region of Pakistan. Sultana and Song (2024) listed the presence of this species in Sindh, Punjab and Azad Kashmir regions of Pakistan.

Ochrilidia gracilis (Krauss, 1902)**Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 9.iii.2024, 1♀ 1♂ leg. Kaleemullah & Chakrani.

Comments

Wagan & Riffat (2013) reported this species from reported this species from Sindh, Punjab, Baluchistan and Khyber Pakhtunkhwa provinces of Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al., (2023) reported this species from Punjab region of Pakistan. Sultana and Song (2024) showed the presence of this species in Sindh region of Pakistan.

Spathosterninae Rehn, 1957***Spathosternum* Krauss, 1877*****Spathosternum prasiniferum* (Walker, 1871)****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 8.iii.2024, 5♀ 4♂leg. Kaleemullah & Kumar; same but, 17.ix.2024, 6♂10♀ leg. Kaleemullah & Chakrani

Comments

Wagan & Riffat (2013) reported this species from reported this species from Sindh, Punjab, Baluchistan and Khyber Pakhtunkhwa provinces of Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al. (2023) reported this species from Punjab region of Pakistan. Sultana and Song (2024) showed the presence of this from Sindh, Punjab, Baluchistan and Khyber Pakhtunkhwa provinces of Pakistan.

Hemiacidinae Dirsh, 1956***Hieroglyphus* Krauss, 1877*****Hieroglyphus nigrorepletus* Bolívar, 1912****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 10.iii.2024, 2♀ 1♂leg. Kaleemullah & Chakrani.

Comments

Wagan & Riffat (2013) reported this species from reported this species from Sindh, Punjab, Baluchistan and Khyber Pakhtunkhwa provinces of Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al., (2023) reported this species from Punjab region of Pakistan. More recently, Soomro et al., (2024) reported this species from upper Sindh Pakistan.

Oxyinae Brunner von Wattenwyl, 1893***Oxya* Serville, 1831*****Oxya hyla* Serville, 1831****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 3.viii.2024, 4♀ 3♂leg. Kaleemullah & Panhwar; same but, 11.x.2024, 5♀5♂ leg. Kaleemullah & Chandio.

Comments

Hussain et al. (2017) recorded this species from Sialkot locality of Punjab, Pakistan. Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al. (2023) reported this species from Punjab region of Pakistan. Sultana and Song (2024) while listing the Acrididae species reported this species presence in Sindh, Punjab, Khyber Pakhtunkhwa and Azad Kahsmir, Pakistan.

Oedipodinae Walker, 1871***Trilophidia* Stål, 1873*****Trilophidia annulata* (Thunberg, 1815)****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 3.vi.2024, 3♀ 3♂leg. Kaleemullah.

Comments

Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al. (2023) reported this species from Punjab region of Pakistan. Recently Panhwar et al. (2024) reported this species from Khairpur district of Sindh Pakistan.

Acrotylus* Fieber, 1853**Acrotylus humbertianus* Saussure, 1884****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 12.vii.2024, 7♀ 4♂leg. Kaleemullah & Chachar; same but, 8.xi.2024, 2♀ 1♂ leg. Kaleemullah & Chachar

Comments

Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Panhwar (2018) during his expedition reported this species from vicinity of Gorakh Hill. Baloch et al. (2023) reported this species from Punjab region of Pakistan. Mustafa et al. (2024) reported this species from tehsil Ratodero of district Larkana Sindh Pakistan. Recently Panhwar et al. (2024) reported this species from Khairpur district of Sindh Pakistan.

Acrotylus longipes* (Charpentier, 1845)*Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 12.vii.2024, 2♀ 3♂leg. Kaleemullah & Chachar; same but, 8.xi.2024, 1♀ leg. Kaleemullah.

Comments

Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Panhwar (2018) during his expedition reported this species from vicinity of Gorakh Hill. Recently, Mustafa et al. (2024) reported this species from tehsil Ratodero of district Larkana Sindh Pakistan.

Calliptaminae Jacobson, 1905***Acorypha* Krauss, 1877*****Acorypha glaucopsis* (Walker, 1870)****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 10.iv.2024, 2♀ 1♂leg. Kaleemullah & Chachar.

Comments

Nazir et al. (2014) reported 8♀3♂ from Azad Jamu Kashmir, Pakistan. Baloch et al. (2023) reported this species from Punjab region of Pakistan. Panhwar et al. (2023) reported this species from Kashmir, Pakistan.

Calliptamus* Serville, 1831**Calliptamus barbarus* (Costa, 1836)****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 11.vii.2024, 2♀ 1♂leg. Kaleemullah & Chandio.

Comments

Soomro and Wagan (2005) recorded this species in Punjab, KPK, Baluchistan and Sindh provinces. Rouibah et al. (2016) characterize this species on the basis of DNA. Panhwar (2018) reported this species from Gorakh Hill station, Dadu Sindh Pakistan. Ali et al. (2019) reported this species from Hazara region of Pakistan.

Calliptamus italicus* (Linnaeus, 1758)*Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 11.vii.2024, 1♀ 1♂leg. Kaleemullah & Chandio.

Comments

Soomro and Wagan (2005) recorded this species in Punjab, KPK, Baluchistan and Sindh provinces. Sultana and Song (2024) listed the presence of this species in Sindh, Baluchistan, Punjab, Khyber Pakhtunkhwa and Azad Kashmir regions of Pakistan.

Catantopinae Brunner von Wattenwyl, 1893***Diabolocatantops* Jago, 1984*****Diabolocatantops innotabilis* (Walker, 1870)****Material examined**

Sindh: Ghotki Sufi Anwar Safari Park, 5.ix.2024, 1♀ 1♂leg. Kaleemullah.

Comments

Ali and Panhwar (2017) recorded this species from KPK, Pakistan. Baloch et al. (2023) reported this species from Punjab region of Pakistan. Sultana and Song (2024) listed the presence of this species in all regions of Pakistan.

CONCLUSION

Present study concluded the records of single family Acrididae with 10 subfamilies, 18 genera and 25 species in Sufi Anwar Shah Safari Park Ghotki, Sindh Pakistan.

AUTHOR'S CONTRIBUTION

Kaleemullah & Waheed Ali Panhwar: Investigation, methodology, draft preparation, review and edit, supervision, Correspondence; Naheed Baloch & Hani Ahmed Ibrahim: Visualization, review and edit, conceptualization; Bhoojo Mal & Abdul Manan Shaikh: Data analysis, Draft finalization, Investigation.

FUNDING

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AVAILABILITY OF DATA AND MATERIAL

All data supporting the findings of this study are available within the paper.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Insects were used in this study. All applicable international, national, and institutional guidelines for the care and use of animals were followed. This article does not contain any studies with human participants performed by the authors.

CONSENT FOR PUBLICATION

Not applicable.

CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest regarding the publication of this paper.

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