

# Biodiversity of Acrididae (Orthoptera) from Sindh - Pakistan

Sajjad Ali Larik

Department of Zoology, Shah Abdul Latif University Khairpur Mirs, Sindh, Pakistan.

## ABSTRACT

**Introduction:** The family Acrididae is one of the largest families in the Orthoptera, and the subfamily Acridinae, which includes grasshoppers, is commonly referred to as the silent slant-faced grasshoppers (Panhwar, *et al.*, 2024a; Ali and Panhwar, 2017). The species is similar to members of the subfamily Gomphocerinae, with whom they share a slanted face (Panhwar, *et al.*, 2024b and Panhwar, 2021). They are also similar in appearance between the two groups. Despite the fact that they are silent, Acridinae are distinct from Gomphocerinae in that they do not have stridulatory pegs on their hind legs (Suhail *et al.*, 1999; Mahmood *et al.*, 2004).

**Objective:** The prime objective of the study was to collect and identify the biodiversity of Acrididae of Sindh Province Pakistan.

**Methodology:** For the purpose of collecting specimens belonging to the family Acrididae, the field investigations were carried out between the months of March 2022 and March 2024.

**Result:** Approximately three thousand specimens were gathered and classified into six different taxa. i-e: *Acrida*, *Duroniella*, *Gelastorhinus*, *Gonista*, *Phlaeoba*, *Truxalis* and 09 species- *Acrida exaltata* (Walker, 1859), *Duroniella laticornis* (Krauss, 1909), *Duroniella laeviceps* (Uvarov, 1938), *Gelastorhinus semipictus* (Walker, 1870), *Gonista rotundata* (Uvarov, 1933), and *Phlaeoba tenebrosa* (Walker, 1871). *Phlaeoba panteli* Bolívar, 1902, *Truxalis eximia* Eichwald, 1830, and *Truxalis fitzgeraldi* Dirsh, 1950. Additionally, for the first time, morphological differences, geographic information system maps, and a list of host plants are presented for the species that were investigated. Without a doubt, the current investigation will be of great assistance to the coming generations of scientists who will be working with the Acrididae fauna of this region.

**Conclusion:** The present study concluded that Acrididae are the pests of agriculture, grasslands, vegetables, herbs and shrubs. Besides, the finding of the species diversity can estimate the pest status level of Acrididae species.

**Keywords:** Acrididae, Biodiversity, Taxa, Species, Pakistan.

## REFERENCES

1. Ali, Shoaib, and Waheed Ali Panhwar. (2017). A checklist of acrididae (Orthoptera) of Hazara Division Khyber Pakhtunkhwa Pakistan." *Journal of Entomology and Zoology Studies* 5.(5): 96-100.
2. Mahmood, K. H. A. L. I. D., Abbas, K. H. A. D. I. M., & Shah, W. H. (2004). A Preliminary Study of grasshoppers (Acrididae: Orthoptera) of Baltistan, Azad Jammu & Kashmir, Pakistan. *Pakistan Journal of Zoology*, 36(1), 21-25.
3. Panhwar, W. A., Ahmed, S., Mehmood, S. A., Shaikh, A. M., Khan, W., & Shah, M. (2024a). Diversity, species richness and distribution of grasshoppers (Orthoptera: Acrididae) in Khairpur Sindh Pakistan. *International Journal of Tropical Insect Science*, 44(5), 2501-2510.
4. Panhwar, W. A., Ahmed, S., Mehmood, S. A., Shaikh, A. M., Khan, W., & Shah, M. (2024b). Diversity, species richness and distribution of grasshoppers (Orthoptera: Acrididae) in Khairpur Sindh Pakistan. *International Journal of Tropical Insect Science*, 44(5), 2501-2510.

5. Suhail, A. N. J. U. M., Khan, H. A., Arif, M. J., & Naeemullah, U. (1999). Taxonomic studies of the subfamily Acridinae (Acrididae: Orthoptera) from Pakistan. *International Journal of Agriculture and Biology*, 1(4), 280-284.