

## Diversity of Diptera in a natural ecosystem in Djelfa

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The Diptera is one of the most significant insect (Elouard, 1981). With among of 180 families described and his worldwide distribution, the order represents perhaps two-thirds of the world total (Gillott, 2005). Due to its significance, the Diptera fauna it's one of the most important subjects in research both globally and in Algeria. Several synthesis studies have been conducted on this subject. Despite this important body of work much remains to be clarified on this point. Despite Djelfa being one of Algeria's most agricultural locations, little research has been done on the subject of Diptera. This is the first study of its kind to include a summary of the local Diptera species. The sampling of dipteran flies was carried out from February 2021 to February 2022 at Djelfa region (34 ° 11 'à 34 ° 54' N; 3 ° 15 'à 3 ° 46' E). The study areas are located in the central part of the highlands, on the Algerian steppe (INC, 1984). Djelfa is limited by Médéa and Tissemsilt in the North, and Ouargla, El Oued and Ghardaïa in the South, in the East by M'sila and Biskra and in the West by Laghouat and Tiaret. For sampling, one method was chosen, the yellow traps. The principle of this method is catching of the winged entomofauna. The traps remain in site in the field for 24 hours and the species are collected in tube eppendorfs containing Ethanol at 70%, with the trap number and the date of the trapping noted. The identification was done at the Higher National Veterinary School (Algeria), with the help using available keys (Séguy 1983; Mcalpine et al., 1987). The Diptera found at this study site include 5 families made up of a total of 52 individuals were successfully collected for this study 3 family of Brachycera and 2 of Nematocera. The Syrphidae family recorded the highest abundance of Diptera, with (51,92 %). It is followed by Sciaridae family (17,31 %) and by Muscidae and Cecidomyiidae (13,46 %). The Bombyliidae family recorded the lowest relative abundance (3,85 %). Mohdeb et al. (2021) found a very low value of Syrphidae not exceeding 0.5%, and Kishore Chandra Sahoo et al., (2021) reported Sciaridae with AR%=3.06%. Very lowest abundance of Muscidae family was detected by Beddiaf et al (2014), with AR%= 0.62% and 0.73% in two sites. Amokrane (2021) observed Bombyliidae family in the three sites with AR%=1.41%, 1.12% and 0.73%. The same author noted that Cecidomyiidae family is present with AR%= 0.09%, 0.57% and 0.22%.

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