

Research Article



Differential Composition of Edaphic Arthropods in Different Land-use Types of District Sargodha (Punjab, Pakistan) and their Relationship with Soil Physico-Chemical and Biological Characteristics

Muhammad Zeeshan Majeed^{1*}, Imtiaz Sarwar¹, Muhammad Afzal¹, Muhammad Rehan Khalid¹, Muhammad Yahya¹ and Khurram Shehzad²

¹Department of Entomology, College of Agriculture, University of Sargodha, 40100, Sargodha, Pakistan; ²Department of Soil and Environmental Sciences, College of Agriculture, University of Sargodha, 40100, Sargodha, Pakistan.

Received | April 17, 2019; **Accepted** | September 01, 2019; **Published** | November 04, 2019
***Correspondence** | Muhammad Zeeshan Majeed, Department of Entomology, College of Agriculture, University of Sargodha, 40100, Sargodha, Pakistan; **Email:** zeeshan.majeed@uos.edu.pk
Citation | Majeed, M.Z., I. Sarwar, M. Afzal, M.R. Khalid, M. Yahya and K. Shehzad. 2019. Differential composition of edaphic arthropods in different land-use types of district Sargodha (Punjab, Pakistan) and their relationship with soil physico-chemical and biological characteristics. *Sarhad Journal of Agriculture*, 35(4): 1071-1083.
DOI | <http://dx.doi.org/10.17582/journal.sja/2019/35.4.1071.1083>
Keywords | Land-use types, Soil arthropods, QBS index, Population abundance, Diversity indices, Soil properties, Seasonal effect

Supplementary Table 1: Analysis of variance table for the impact of season and land-use types on average population abundance of edaphic arthropods.

Source	DF	SS	MS	F	P
Season	3	3133.7	1044.58	17.26	0.0000
Land use type	8	5723.7	715.46	11.82	0.0000
Season* type	24	3258.4	135.77	2.24	0.0006
Error	828	0121.1	6.53		
Total	863	62236.9			
Grand Mean	4.1989	CV	185.29		

Supplementary Table 2: Analysis of variance table for the impact of season and land-use categories on average population abundance of edaphic arthropods.

Source	DF	SS	MS	F	P
Season	3	3133.7	1044.58	15.85	0.0000
Land category	2	2281.4	1140.68	17.31	0.0000
Season*land	6	664.3	110.72	1.68	0.1229
Error	852	56157.5	65.91		
Total	863	62236.9			
Grand Mean	4.1989	CV	193.35		