Morphological identification alone is not reliable so DNA barcoding has become not only important but compulsory molecular tool for species identification. Present study has been designed to identify the spiders of different families collected from Soon Sakeser Valley, Punjab using DNA barcoding. For this purpose spiders were collected and preserved in 95% alcohol. DNA was isolated from left leg of spider following the protocol of Thermo Scientific GeneJET Genomic DNA Purification kit. Barcode region of CO1 gene of 64 samples was amplified through PCR but sequences of 658 base pairs were recovered from 62 samples, showing 7 families, 20 genera and 27 species.

Araneidae family was found the most dominant family in foliage followed by Salticidae, Oxyopidae, Clubionidae, Tetragnathida, Thomisidae, and Miturgidae. The interspecific value of divergence was more than the intraspecific value of divergence for all seven families which described a clear barcode gap. No overlap was recorded in intra-specific & inter-specific divergence value. Furthermore, distance to NN was recorded higher than the maximum intra-specific value for all species. The accumulation curve of current study was not plateau.