



ABSTRACT

This study was conducted to find out diversity of herptiles of the area in District Sheikhpura. Depending upon the topography, the entire area was categorised into 5 different forms of habitat, such as crop fields, barren lands, human settlements, sandy loam areas and water bodies. The herpetofauna diversity and distribution of each habitat type was studied at different localities by Global Positioning System (GPS) method using ARC software. Additionally, some crop fields were further categorized as permanent dry and semi aquatic. In semi-aquatic category were placed the habitats where some types of crops, such as sugarcane, rice, wheat and floriculture crops were cultivated and the water was kept standing in these fields periodically.

In the present study, diversity and distribution, spatial well as temporal of herpetile fauna was recorded from March, 2018 to February, 2019. Diverse habitat types were observed in the study area, such as peddies, cultivated lands, naturally preserved areas, water logged soil and sandy loam soils (areas at the canal bank). The times of dawn and dusk was found to be suitable for field surveys and observation notes to explore the amphibian and reptilian fauna within the study period, particularly during the summer months (April – September).

Selected herpetofauna was also captured and preserved for the identification purpose. Various approaches were adopted for this purpose, such as the use of drag net, hand net, snake stick and hand keeping. The captured samples were euthanized, preserved in 10% formalin and were carried to Stephenson's Natural History Museum of the Department of Zoology, GC University, Lahore. Identification was performed by morphometric measurements and diagnostic characters of the specimens; identification key developed by Khan, 2006 was followed for this purpose.

A total of 214 specimens representing 38 species of amphibians and reptiles were studied from study area. Out of these, 74 amphibian specimens representing 6 species (1 toads, 5 frogs), 6 genera and 3 families were recorded; whereas 142 reptilian specimens representing 32 species, (14 lizards, 14 snakes, and 4 turtles species) 29 genera and 15 families were recorded.



Within agricultural land habitat type, 6 amphibian and 16 reptilian species were recorded. Reported number of amphibian species captured from barren land were 3 while 9 reptilian species were captured. Sandy Lome area was found to inhabit 7 species of reptiles. From human settlement habitat type, such as buildings, houses, factories, schools, ruins and some street parks including the debris materials, 4 amphibian and 13 reptilian species was studied. Canals, ponds and water channels were found to inhabit 2 amphibian and 4 reptilian species. Overall diverse herpetiles was found in the study; this was due to diverse habitat types that our study area offered.