

## SUMMARY

The river Chenab is an important tributary of the river Indus. It originates in Himachal Pradesh province of India, flows through Jammu and Kashmir and enters Pakistan near Sialkot. Out of more than 1200 km, about half of it flows through Punjab Province of Pakistan and eventually joins the river Indus near Mithan Kot. A total of 1572 specimens belonging to 93 species, 58 genera, 19 families and 9 orders were collected, fixed, transported to laboratory and analysed during the study period from 10 selected sites. This is the greatest number of species collected and described in any single study. A new species *Sisor pakistanicus* was described and published. In addition, throughout the river length from Bajwat to Punjnad, 10 species were recorded for the first time. These are *Barilius modestus*, *B. pakistanicus*, *Botia lohachata*, *Cyprinion watsoni*, *Labeo bata*, *Labeo boggut*, *Glyptothorax kashmirensis*, *G. sufii*, *Nangra robusta* and *Schistura punjabensis*. I was unable to find 6 species, *Lepidocephalus guntea*, *Schistura macrolepis*, *Schistura shadiwalensis*, *Amblyceps mangois*, *Macrogathus aral* and *Monopterus cuchia* which were previously recorded from the river by different authors. Family Cyprinidae was the most diverse and the most abundant family. 41 out of 93 species belonged to Cyprinidae and 874 out of 1572 specimens belonged to different species of Cyprinidae.

Some of the species like *Chitala chitala*, *Notopterus notopterus*, *Gudusia chapra*, *Salmophasia bacaila*, *S. punjabensis*, *Chela cachius*, *Cirrhinus mrigala*, *Puntius sophore*, *P. ticto*, *Tor macrolepis*, *Crossocheilus diplocheilus*, *Cyprinus carpio*, *Mystus bleekeri*, *M. vittatus*, *Xenentodon cancila*, *Channa punctata*, *Chanda nama*, *Oreochromis aureus* and *Mastacembelus armatus* etc. have wide distribution and are present throughout the river length in more or less number. Some species like *Devario devario*, *Esomus danricus*, *Cyprinion watsoni*, *Puntius conchoniis*, *Garra gotyla*, *Botia lohachata*, *Racoma labiata*, *Channa gachua*, *Schizothorax plagiostomus*, *Acanthocobitis botia* and *Nemacheilus corica* are mainly restricted to the part of the river upstream of Qadirabad, while some others like *Chela laubuca*, *Securicula gora*, *Gibelion catla*, *Labeo bata*, *L. boggut*, *L. gonius*, *Osteobrama cotio*, *Ctenopharyngodon idellus*, *Rita rita*, *Gagata pakistanica*, *Glyptothorax sufii*, *Nangra robusta*, *Sisor pakistanicus*, *Ailia punctata*, *Clupisoma garua*, *Sicamugil cascadea*,

*Pseudeutropius atherinoides*, *Eutropiichthys vacha*, *Channa striata*, *Parambasis baculis*, *Nandus nandus* and *Oreochromis niloticus* are found only downstream of it.

Values of Shannon Index, Equitability and Simpson Index indicate much diversity and high evenness. Ichthyofauna of Chenab River has more diversity than the adjacent rivers Jhelum and Ravi. Physico-chemical parameters show spatio-temporal variations which follow certain obvious trends. Among the phytoplankton Chlorophytes dominated followed by Cyanobacteria. Among rooted hydrophytes *Eichhornia*, *Wolffia*, *Typha* and *Sagittaria* were found to be the most abundant.