

## ORL-EB&C-05

### Fish Diversity of Upper Churia Range in Babai River, Dang, Lumbini Province, Nepal

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Study was conducted in Babai River of Dang valley to Tarai from Dharapani to Chara Purandhara taking six sampling sites for 5 months (May to September 2022). Fishing fishes were collected by using locally prepared gear and preserved in 10% formalin. The correlation between water transparency and fish diversity was found to be negatively correlated in May ( $r=-0.248$ ) and September ( $r=-0.105$ ), positive correlation in June ( $r=0.553$ ), July ( $r=0.647$ ) and August ( $r=0.457$ ). Water temperature and fish diversity showed positive correlation in all the months. Negative correlation was found between pH and fish diversity in May ( $r=-0.406$ ). Free carbon dioxide and fish diversity showed negative correlation in May ( $r=-0.180$ ), July ( $r=-0.567$ ) and August ( $r=-0.309$ ). The fish were not uniformly distributed due to variation in temperature, transparency, pH, DO, free  $CO_2$ , hardness, etc. of the river.

In the present study, 42 fish species is identified belonging to 7 orders 12 families and 29 genera (Figures 4;5). The highest diversity of fish species was found at station II and lowest at Station I. The dominant fish species of the River are *Puntius*, *Channa punctatus*, *Garra mullya*, *Tor tor*, *Mystus tengra*, *Mastacembelus armatus*, *Cirrhinus reba* and *Glyptothorax pectinopterus*. Other species commonly found throughout the river were *Puntius ticto*, *Raiamas bola* and *Barilius barna*. The River has good habitat for many freshwater fish but no significant difference in the diversity status rather it is the seasonal phenomena in the composition of fish species. The declination of fish species in the river may be due to illegal fishing, sand mining, and water pollution.

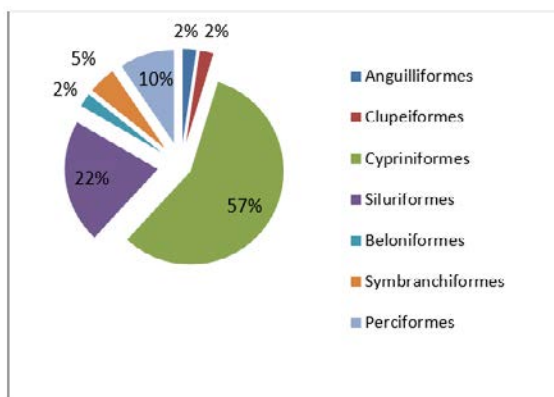


Figure 1: Order wise fish distribution in Babai River.

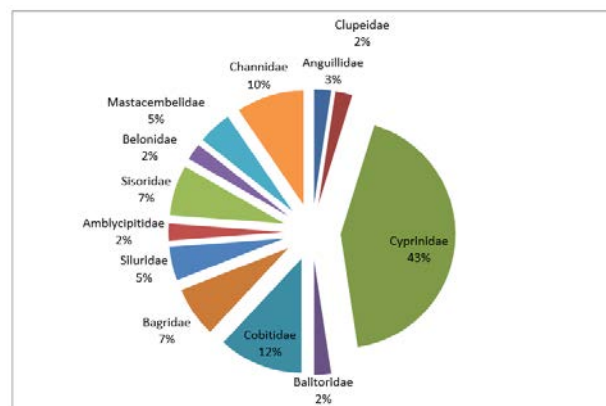


Figure 2: Family wise fish distribution in Babai River.