

عنوان مقاله:

Ichthyodiversity and conservation importance of the Jakhor Taal Lake in Kailali district, far western Nepal

محل انتشار:

نشریه تنوع جانوری، دوره 3، شماره 3 (سال: 1400)

تعداد صفحات اصل مقاله: 16

نویسندگان:

K. Deepak Singh - Central Department of Zoology, Tribhuvan University, P.O. Box ۵۲۷۵, Kathmandu, Nepal

Bishnu Prasad Bhattarai - Central Department of Zoology, Tribhuvan University, P.O. Box ۵۲۷۵, Kathmandu, Nepal

خلاصه مقاله:

Jakhor Taal is an ox-bow perennial lake, situated in Dhangadhi sub-metropolitan city in Kailali district, Nepal. The present study focuses on the factors determining fish diversity, socio-economic status of fishing communities and conservation challenges of Jakhor Taal. Fish sampling was done by gill net, cast net and other local fishing techniques such as Helka and Tiyari nets and Dhadiya trap. A total of ۲۴ fish species (۸ exotic and ۱۶ native) were recorded belonging to ۷ orders, ۱۴ families and ۲۲ genera. The order Cypriniformes was found to be highest, obtaining ۴۱.۶۶% of the total fish species recorded and ۶۵.۳۸% of total fish caught during the study period (February ۲۰۱۹ - August ۲۰۱۹) followed by Siluriformes (۲۰.۳۳%) and Perciformes (۱۶.۶۷%), respectively. The Shannon-Weiner diversity index was found highest (۲.۹۳) in winter (February) and lowest (۲.۷۶) in summer (July). Similarly, the Simpson and Evenness values were also found slightly higher during winter (February) in comparison to summer (July). The Shannon-Weiner diversity index was found highest (۲.۷۳) at station II in comparison to station I, III, and IV where it was ۲.۳۱, ۲.۰۹, and ۲.۰۴, respectively. Results from the Redundancy analysis (RDA) revealed that the environmental variables such as water temperature, depth and dissolved oxygen were found to be highly significant to most of the fish species at different stations and months. However, pH and free CO₂ was not shown to have any relationship or significance. Altogether, ۲۲ clusters were formed in which exotic species show highly significant clustering in comparison to native species. The socio-economic status of the local fishing communities is below the poverty line and the lake and its fishing resources play vital roles in their diet and income source. In the context of conservation challenges and implications, this lake is highly neglected by both governmental and local communities and this negatively affects its natural properties through habitat destruction, illegal fishing, urbanization, invasive species, and a general lack of awareness.

کلمات کلیدی:

Fish conservation, Jakhor Taal, lowland, redundancy analysis, species, wetlands

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1483545>



