

Fish, Sarus Crane and Alwara Lake

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Abstract- Lakes are the natural reservoir of the aquatic resources. The Alwara lake is a part of village Alwara, which is located in Sarsawan block of Manjhanpur tahsil of Kaushambi district of Uttar Pradesh. This lake is a natural perennial wetland. It is surrounded by agricultural fields and connected to the river Yamuna and covers about more than 400 hectares. In this lake, the water level falls during summer and winter but rises during rainy season. The lake has derived its name from village Alwara. Locally it is called Alwara taal. The environmental condition of this lake supports the survival of a large number of fish species and avian species including Indian Sarus crane. Present article discusses that Alwara lake is suitable for fishes and Sarus cranes.

Indexed Terms-Alwara Lake, Vulnerable, Indian sarus crane, Good natural habitat, Fishes.

I. INTRODUCTION

The Alwara lake is a natural lake (Fig. 1), located in Sarsawan block of Manjhanpur tahsil of district Kaushambi of Uttar Pradesh, India. This is a part of perennial marshy wetland, situated between the latitude 25024'05.84" S – 25025'10.63" N and longitude 81011'39.49" E-81012'57.95" W with altitude MSL- 81.08 meter. It is surrounded by agricultural fields and is connected to the river Yamuna and Kishanpur lift canal and covers several hundred hectares. The lake is skirted by villages like-Koripur, Ranipur, Dundi, Hatwa and Bhawansuri in the east; Paur Kashi Rampur, Alwara and Gaura in the north; Shahpur, Umrawan in the south and Mawai, Tikra and Dalelaganj in the west.

The lake has derived its name from village Alwara. Locally it is called Alwara Taal (Verma and Prakash, 2016a). The weather around this lake is tropical to subtropical with some variations over the year. Winter season occurs between late October and February but mid-December to mid-January is the season of severe cold and irregular appearance of fogs. Spring season

occurs usually from mid-February to end of April. Summer season comes in the month of March and ends in late June. It is marked by high velocity winds including heatstroke. In local and vernacular language, it is called *loo*, which is a strong, hot and dry summer afternoon wind from the west which blows over the western Indo-Gangetic plain region of North India. It is especially strong in the months of May and June. Rainy season starts from late June to early October. Approximately 350 mm rainfall observed annually but irregularity in rainfall is also noticed year wise which influences the landscape ecology of the lake. Autumn season commences in mid-October and ends in late November. Temperature shows with high fluctuation over the year and noticed determinant parameters of this landscape.

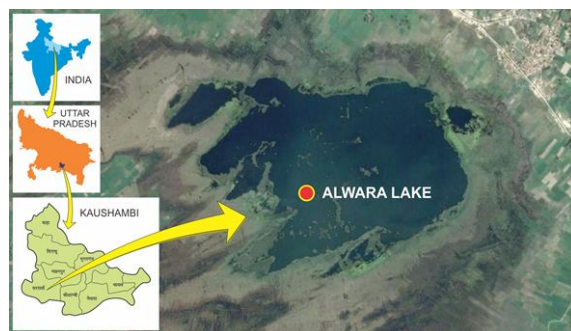


Fig. 1. Alwara Lake in Kaushambi district (U.P.)

II. FISH BIODIVERSITY

The Alwara Lake has good natural habitat for the growth, development and proliferation of fishes. Verma and Prakash (2016b) studied the fish diversity of Alwara lake and reported a sum of 89 fish species while Verma (2016) studied the dominance of cypriniformes Fishes. Ichthyo-faunal diversity of Alwara Lake with threats and conservation status were studied by Verma (2021). According to him, a total 45 fish species were recorded from six sampling sites of Alwara Lake belonging to 9 orders, 18 families and 29 genera. The Alwara Lake, a wetland ecosystem

supports diverse stock of carps, catfishes, perches, feather backs, gobies, eels, puffers etc.

III. SARUS CRANE

Indian Sarus Crane, *Grus antigone antigone* (Linnaeus, 1758) is the largest and only resident breeding crane of Indian sub-continent (Ali and Repley, 1980) found in several parts of India (Vyasa, 2002). The sarus crane (Fig. 2) pairs are well known for their faithfulness and living togetherness and popular as eternal symbol of unconditional love, devotion and good fortune with high degree of marital fidelity as they pair for lifelong (Prakash and Verma, 2016a; Ashok, 2016; Verma, 2018a). The sarus crane is now 'State Bird of Uttar Pradesh' and shows strong positive correlation with agriculture (Verma, 2018b).



Fig. 2. Sarus Crane around Alwara Lake

The sarus crane is now listed as globally threatened i.e., vulnerable bird species (Bird Life International, 2016), as its population is decreasing. In contrary to global scenario, its population is increasing continuously at local level in and around the Alwara Lake of district Kaushambi, India (Verma and Prakash, 2016c, 2018a, 2019).

A review of literature available has revealed that both plant diversity as well as animal diversity have been studied and explored by different workers throughout the world including India but plant and animal biodiversity of Alwara Lake of district Kaushmbi (U.P.) is little explored. As far as ecology, demographic study and conservation status of Indian Sarus Crane *Grus antigone antigone* in and around the Alwara lake is concerned, it is done only by very few

workers including Verma *et al.* (2015), Verma and Prakash (2016d, 2018b) and Prakash and Verma (2019). The population of Sarus crane is increasing year by year since 2012 in and around Alwara lake as a result of awareness programme organized by several naturalists including Prakash and Verma (2016c).

The annual floods of river Yamuna bring about the vast openness of agricultural land after rainy season. The vast openness around Alwara lake not only provides natural habitat for vulnerable Indian sarus crane but also local flora for nest construction (Prakash and Verma, 2016b; Verma and Prakash, 2016e, 2021) while plankton provides food to it as well as to other water birds.

Thus, it can be concluded that the ecological condition of this lake supports the survival of several fish species and endangered species like Indian sacred lotus and Indian Sarus crane; hence there is a compulsory need to save the genetic resources of fish as well as Sarus crane from the danger of extinction.

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