

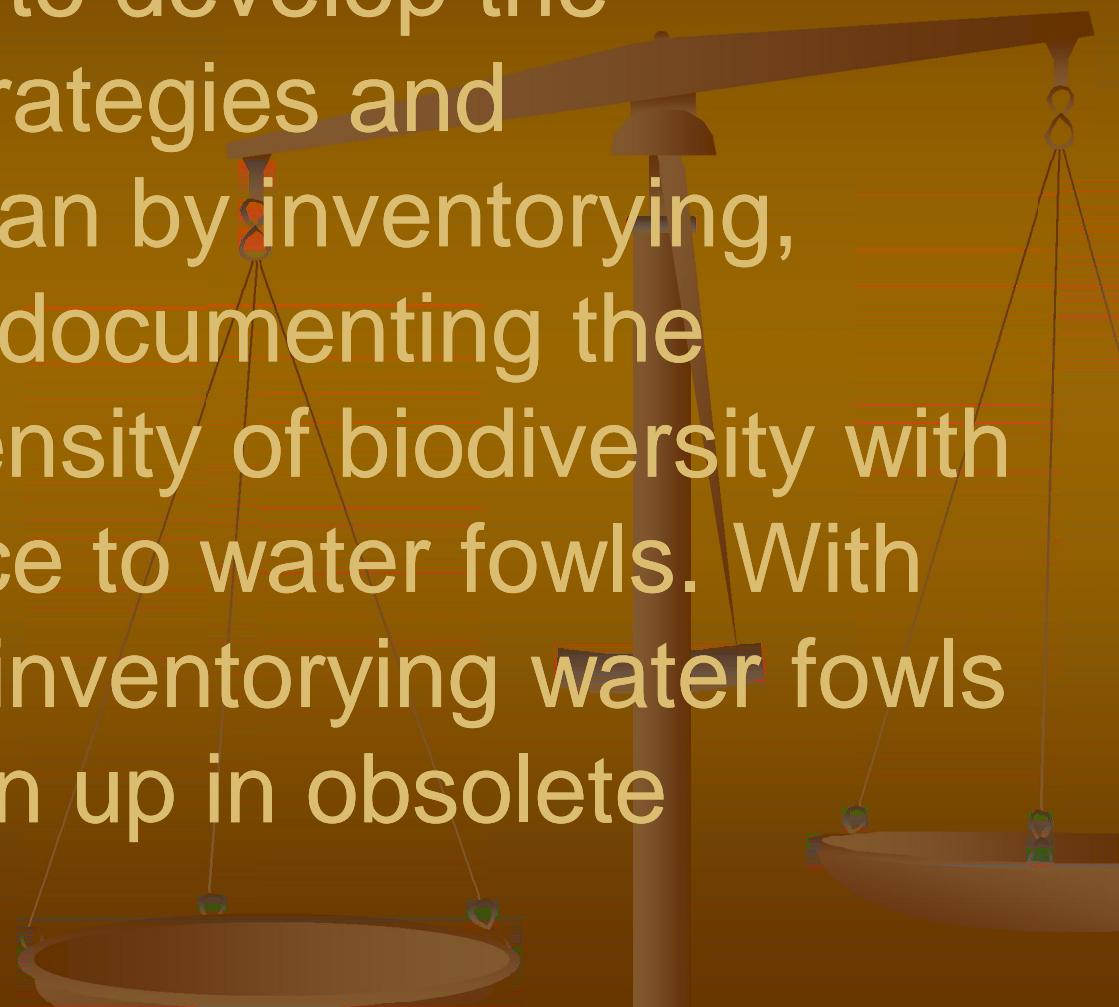
WATER BIRD DIVERSITY AT HEGGERI LAKE, HAVERI DISTRICT

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The avifaunal diversity and density in Heggeri lake, was studied for a period of 2 years (2004 – 06). Heggeri lake inhabits several local and migratory bird species. This habitat attracted 30 bird species belonging to 10 families, which are local and migratory birds. Highest population of painted storks and Bar headed geese was recorded in January. Other prominent residents were herons and little cormorants. All the 30 species enjoyed the habitat from November to February during the study period.

The Ramsar convention, which came into force in December 1973, demands an urgent need to develop the conservation strategies and management plan by inventorying, monitoring and documenting the diversity and density of biodiversity with special reference to water fowls. With this back drop, inventorying water fowls diversity is taken up in obsolete Heggeri lake



Study area: The lake is owned by Karnataka state Minor Irrigation department. According to the history, the lake is constructed in 1134. Lake is surrounded by four villages (one on the south-east, one on the south-west and the other two on eastern side). It is wholly rain fed and no canal is connected to it for traditional supply of water. The earthen embankment runs about a kilometer and is still strong. The catchment area on the far western-side connects small nallahs to the tank to feed water during rains. The tank is semi-permanent and gets dried up during summer. The depth of water when full is 12 feet.

BIRD DIVERSITY : Heggeri lake is the habitat of plenty of local and migratory waterfowls (Table 1). Recent human activities in and around the lake area has curtailed the water holding capacity and pulverized the flora of the lake. It has affected the water fowls to certain extent. Reduction in the water retention in the lake, weed infestation and lifting of the lake soil and water continuously by National Highway Authority of India (NHAI) has altered the ecological characteristics of the lake.



A view of Heggeri lake (Haveri district)

Some of the birds which were inhabiting the Heggeri lake from 1997 – 2003 like Flamingoes, White breasted water-hen, Little grebe, Spot-billed pelican, Asian open bill stork, Great stone plover, Stork billed kingfisher, Nakta duck, Eurasian Wigeon, Mallard, Blue winged teals and Poachard were not recorded during our study period (2004 – 2006).

Since the lake dries in summer and being polluted by excessive use of inorganic fertilizers, the bird life in the lake is threatened. With some of the birds observed prior to 2003 and their noted absence from 2004-2006 indicate that water fowls are yet to identify the lake as a comfortable habitat. It was evident that water fowl population was found to be maximum in the month of December. Moderate volume of water storage, favourable temperature, availability of food may be the cause for maximum population.

As there are cultivable fields around the lake, most of the birds are displaced in rainy season. It has been observed that the bird population was minimum in the month of June and steadily increased there on till December.

Though our study period ended in June 2006, our team made visits to the lake from the commencement of this years rainy season (2007). The lake was totally dry from June 2006 to January 2007 and hence no birds were seen in the lake except a few in the nearby fields of the lake. However, the birds congregated in large numbers during winter seasons of 2008, 2009. **The population of Bar-headed geese crossed 400 during winter season of 2009.**

In the recent years, large number of purple moorhens are inhabiting the lake. Whether these birds are indicators of weed infestation and increased vegetation is a matter of debate. There is necessity to undertake measures to restore its original features so as to make this lake an abode of wetland birds.

The state owned (minor irrigation department) is grossly neglected. The water and soil was lifted for the bypass and four lane highway work (Golden Quadrilateral project of the union government). Due to disturbances around the lake, the number of birds visiting the lake is reducing.

Though there is a clear instruction from Minor Irrigation department to maintain the water level in the lake, farmers in the catchment area utilize water without maintaining water above dead storage level. Due to drying up of lake, the birds are forced to change their feeding grounds from Heggeri to neighbouring lakes.

In spite of a few disturbing factors, the site deserves a protected bird sanctuary status. The spot bills, pint ails, red shank, sand piper, curlews, godwits, painted storks, spoon bills and bar-headed geese make this lake their home for few months every year and are seen in good numbers in this lake.

CONCLUSION : The water body is attracting variety of birds since many years and considered as stopover site for migratory birds. If the water body has to be preserved for their intended use, a sustainable and holistic management planning is necessary for conservation of this Heggeri lake.

It has been proved that the altered ecological characteristics of the lake made the birds unable to inhabit year after year. Efforts should be made to restore original features of the lake to make the lake an abode of waterfowls.

A view of the Heggeri lake soil excavated for bypass and four lane Highway work
(Golden Quadrilateral project of the Union government)



A view of the lake with the islands exposed with the approach of summer season



Painted storks feeding in Heggeri lake



Congregation of Spot bills in Heggeri lake



Spoon bills in Heggeri lake



Black winged stilts in Heggeri lake



Bar headed geese in Heggeri lake



White necked storks near Heggeri lake



Little egret



Little ringed plover



Grey heron



Common green shank



Indian pond heron



Black tailed godwit



Coot



Cattle egret



Whited breasted kingfisher



Spotted red shank



Common sandpiper



Black ibis



Red wattled lapwing



Pied wagtail



Marsh sandpiper



Phalarope



Table 1: Family wise distribution of birds in Heggeri lake

Sl.No	Name of the family	Number of species
1	Alcedinidae	2
2	Charadriidae	1
3	Recurvirostridae	1
4	Rallidae	2
5	Anatidae	5
6	Threskiornithidae	4
7	Ciconiidae	2
8	Ardeidae	5
9	Phalacrocoracidae	1
10	Scolopacidae	7
Birds belong to 10 families		30

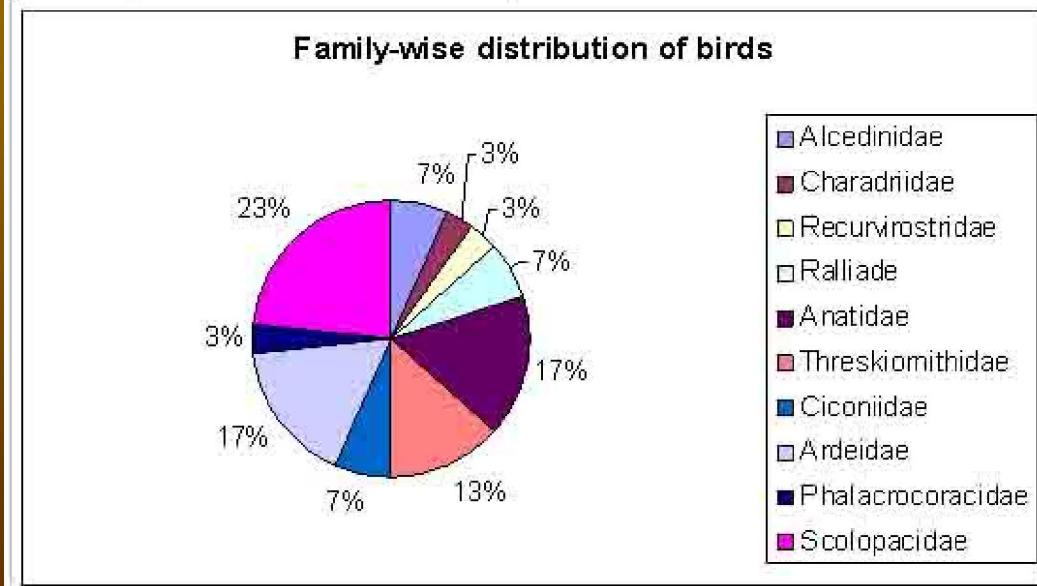


Table 2: List of the birds which were recorded in Heggeri lake from 1997-2003

These have not been seen in Heggeri lake during the study period (2004-2006)

Sl.No	Common name	Scientific name	Family
1	Flamingo	<i>Phoenicopterus ruber</i>	Phoenicopteridae
2	White breasted waterhen	<i>Amaurornis phoenicurus</i>	Rallidae
3	Little grebe	<i>Tachybaptus ruficollis</i>	Podicipitidae
4	Spot-billed pelican	<i>Himantopus himantopus</i>	Pelicanidae
5	Asian openbill-stork	<i>Anastomus oscitans</i>	Ciconiidae
6	Great stone plover	<i>Esacus recurvirostris</i>	Burhinidae
7	Small Blue kingfisher	<i>Alcedo atthis</i>	Coraciiformes
8	Stork billed kingfisher	<i>Halcyon capensis</i>	Coraciiformes
9	Brahminy shelduck	<i>Tadorna ferruginea</i>	Anatidae
10	Comb (nakta) duck	<i>Sarkidiornis melanotos</i>	Anatidae
11	Eurasian wigeon	<i>Anas penelope</i>	Anatidae
12	Mallard	<i>Anas platyrhynchos</i>	Anatidae
13	Garganey (blue winged teal)	<i>Anas querquedula</i>	Anatidae
14	Poachard	<i>Aythya nyroca</i>	Anatidae

Table 3 : Check-list of the birds observed in and around Heggeri lake

Sl.N	Common name	Scientific name	Family
1	Lesser pied kingfisher	<i>Ceryle rudis</i>	Alcedinidae
2	White breasted Kingfisher	<i>Halcyon smyrnensis</i>	Alcedinidae
3	Red-wattled lapwing	<i>Vanellus indicus</i>	Charadriidae
4	Black winged stilt	<i>Himantopus himantopus</i>	Recurvirostridae
5	Purple moorhen	<i>Porphyrio porphyrio</i>	Rallidae
6	Common coot	<i>Fulica atra</i>	Rallidae
7	Northern pintail	<i>Anas acuta</i>	Anatidae
8	Spot-billed duck	<i>Anas poecilorhyncha</i>	Anatidae
9	Northern shoveller	<i>Anas clypeata</i>	Anatidae
10	Lesser whistling duck	<i>Dendrocygna javanica</i>	Anatidae
11	Bar-headed goose	<i>Anser indicus</i>	Anatidae
12	Eurasian spoon bill	<i>Platalea leucorodia</i>	Threskiornithidae
13	Oriental white ibis	<i>Threskiornis melanocephalus</i>	Threskiornithidae
14	Black ibis	<i>Pseudibis papillosa</i>	Threskiornithidae
15	Glossy ibis	<i>Plegadis falcinellus</i>	Threskiornithidae
16	Painted stork	<i>Mycteria leucocephala</i>	Ciconiidae
17	White necked stork	<i>Ciconia episcopus</i>	Ciconiidae
18	Median egret	<i>Mesophoyx intermedia</i>	Ardeidae
19	Cattle egret	<i>Bubulcus ibis</i>	Ardeidae
20	Indian pond heron	<i>Ardeola grayii</i>	Ardeidae
21	Grey heron	<i>Ardea cinerea</i>	Ardeidae
22	Little egret	<i>Egretta garzetta</i>	Ardeidae
23	Little cormorant	<i>Phalacrocorax niger</i>	Phalacrocoracidae
24	Marsh sandpiper	<i>Tringa stagnatilis</i>	Scolopacidae
25	Spotted redshank	<i>Tringa erythropus</i>	Scolopacidae
26	Wood (spotted) sandpiper	<i>Tringa glareola</i>	Scolopacidae
27	Black tailed godwit	<i>Limosa limosa</i>	Scolopacidae
28	Common (fain tail) snipe	<i>Gallinago gallinago</i>	Scolopacidae
29	Common sandpiper	<i>Actitis hypoleucos</i>	Scolopacidae
30	Curlew	<i>Numenius arquata</i>	Scolopacidae