



**Reduction in arrival number of winter migratory wetland birds in
Lakhamdiddi Village, Kotabommali Mandal, Srikakulam District,
Andrapradesh - 532195, India**

S. Mukunda Rao

**Department of Zoology, Andhra University, Visakhapatnam- 500003,
Andrapradesh, India**

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Abstract

The present studies deal with winter migratory birds that arrive in a very healthy pond namely Petcheruvu in Lakhamdiddi Village in Kotabommali mandal of Srikakulam district, Andrapradesh. The present study reveals that a total of 42 species of wetland birds belonging to 14 orders and 19 families were observed from this pond. Out of these 42 species of wetland birds, 14 species of birds were winter migratory, 7 species were local migratory, 11 species were resident, and 10 species were resident / local migratory. The present studies hint towards those conditions and reasons which have discouraged birds during 2012 - 2014. The familiar migratory birds observed in 2012 include Spot billed pelican, painted stork, asian open billed stork, spot billed duck, comb duck, tufted pochard, pale harrier, Kentish plover, herring gull, common snipe among several other terrestrial ones. However, the birds seen in 2013 declined which continued through 2014. The main reason for this destructive development of migratory birds includes the large scale interference with the topography of the pond. The large part of the pond has been land filled and encroached upon for the sake of doing hackneyed daily chores by the villagers. This paper attempts to highlight the practice of deliberate destruction of the rural pond which have served as good sojourning locations for migratory birds which come from as far away distance like Siberia, China, Russia, and mid Himalayas since time immemorial. This negative trend if not checked on war footing, the migratory birds' arrival in Lakhamdiddi Petcheruvu will be in the doldrums. The paper urges the government authorities to take urgent steps to ensure conservation of Petcheruvu ponds and thus conservation of avian diversity.

Keywords : Spot billed pelican, painted stork, asian open billed stork, spot billed duck, comb duck, tufted pochard, pale harrier, Lakhamdiddi village, Petcheruvu, migratory birds and Kotabommali.

Introduction

The Srikakulam District holds a distinct and unique attraction for the migratory birds, right from Itchapuram to Kandivalasa Gadda. Painted Storks also frequent, Etcheria and Manikyapuram near Sompeta, because of the presence of big, suitable bodies of water, riparian networks and enough nesting places. The tanks near the shore planted with Babul attract birds to nest.

Winter Migratory birds parading in the cold and calm waters of rural ponds, roadside, puddles, dams, barrages and virtually in each and every

dams, barrages and virtually in each and every wetland in Srikakulam district, Andrapradesh between September and February of each winter season. Up to 1980s, the number and rich diversity of these winter migratory birds was astonishing and amusing. However, in the recent years, all these water-fronts have been land filled, polluted, destroyed, altered, transformed and thus threatening the globally significant and already acutely endangered birds of our world. This paper highlights the on-going destruction process for birds' diversity by actually focusing attention on

a healthy, rural pond Petcheruvu in Lakhamdiddi village, Kotabommali Mandal of Srikakulam district in Andrapradesh. No previous work has been done on these lines in Lakhamdiddi Petcheruvu wetland.

Materials and Methods

The present studies have been carried out in Petcheruvu wetland. It is located in Lakhamdiddi village (Fig.-1) of Tekkali division in Srikakulam district during 2012 - 2014. The Village is located at a distance of about 5 kilometers from Kotabommali mandal head quarters, NH-5, 3 Km from Naupada swamps. Monthly visits were made for the study of avifauna.

The surveys were carried out at regular intervals during Pre-monsoon, monsoon and Post-monsoon periods of the year, to cover migratory and resident species. The study includes identification of different bird's viz., Aquatic, Terrestrial and Water dependent avian species. Observations were made over a period of two years from 2010 – 2012 with an aid of field binoculars (7x35 and 10 x 50 m). Identification was based on standard scientific procedures, field identification by direct sightings; photographs were taken whenever feasible and possible by using a Nikon 35 mm digital camera with appropriate zoom lens. Indirect observations, signs and vocalizations were also recorded.

Bird survey was conducted, when birds are most active during day the from 07:00 to 11:00 hrs and from 16:00 to 19:00 hrs. Field visits have been conducted weekly thrice in all the three seasons and habitat wise. Opportunistic observations were made during other timings and species recorded during these observations included in the checklist. The bird life in the study area were documented by direct observations, random walks and opportunistic encounters following Bibby *et al.* (1992). Identification manuals



Fig.-1. Photo showing the study area

and field guides by Ali and Ripley (1989), Kazmierczak (2000) and Grimmett *et al.* (2001) were used during the survey. Common and scientific names of the birds following Grimmett *et al.* (1998 and 2001), Mnakadan and Pittie (2001) were adopted. The birds were categorized as Resident (R), Migratory (M), Aquatic (A), Terrestrial (T) as per Grimmett *et al.* (2001). All the bird species recorded during the present study were tabulated giving their scientific names, family, IUCN status and legal status if any. Abundance of the recorded species are documented based on the total sightings during the study period as common (more than 10 sightings), uncommon (3-5 sightings), and rare (1-2 sightings). The checklist of species with their status is given.

Results and Discussion

It is evident from presented table -1 that rich varieties of birds used to come in Petcheruvu pond in Lakhamdiddi village of Srikakulam district. Totally, 42 species of wetland birds (Table -1 and Fig.-2) were observed from Petcheruvu pond in Lakhamdiddi village. These are segregated into 14 orders and 19 families. Out of 42 species, 14 species of birds were winter migratory, 7 species were local migratory, 11 species resident and 10 species were resident / local migratory birds.

Table – 1. Habitat, status, IUCN status, guild, IWPA status of birds recorded in Srikakulam wetlands

Sl. No	English name	Scientific name	Abundance	Habitat	Status	Guild	IWPA
1.	Spot-billed Pelican	<i>Pelecanus philippensis</i>	C	W F	WM B	Pis	S I
2.	White pelican	<i>Pelecanus onocrotalus</i>	UC	W	WM	Pis	S I
3.	Great Cormorant	<i>Phalacrocorax carbo</i>	UC	W	R/LM	Pis	S IV
4.	Little Egret	<i>Egretta garzetta</i>	C	WD F	R	Aqa Omn	S IV
5.	Median Egret	<i>Mesophoyx intermedia</i>	UC	WD F	R/LM	Aqa Omn	S IV
6.	Large Egret	<i>Casmerodius albus</i>	UC	W	R/LM	Aqa Omn	S IV
7.	Cattle Egret	<i>Bubulcus ibis</i>	C	T F	R	Aqa Car	S IV
8.	Indian Pond-Heron	<i>Ardeola grayii</i>	C	W F	R	Aqa Omn	S IV
9.	Purple Heron	<i>Ardea purpurea</i>	C	W	R/LM	Aqa Omn	S IV
10.	Night – Heron	<i>Nycticorax nycticorax</i>	C	W F	R	Aqa Omn	S IV
11.	Painted Stork	<i>Mycteria leucocephala</i>	C	W F	LM B	Pis Omn	S IV
12.	Asian Openbill-Stork	<i>Anastomus oscitans</i>	C	W	LM/WM	Aqa Snails	S IV
13.	Black Ibis	<i>Pseudibis papillosa</i>	C	W	LM	Ins Omn	S IV
14.	Large Whistling-Teal	<i>Dendrocygna bicolor</i>	UC	W F	WM	Omn	S IV
15.	Bhahminy Duck	<i>Tadorna ferruginea</i>	C	W F	LM/WM	Omn	S IV
16.	Mallard	<i>Anas platyrhynchos</i>	UC	W F	WM	Aqa Omn	S IV
17.	Shoveller	<i>Anas clypeat</i>	UC	W F	WM	Car Omn	S IV
18.	Red crested Pochard	<i>Netta rufina</i>	UC	W F	WV	Omn	S IV
19.	Tufted pochard	<i>Aythya fuligula</i>	UC	W F	WV	Omn	S IV
20.	Bar Headed Geese	<i>Anser indicus</i>	R	W	WV	Aqa Veg	S IV
21.	Comb Duck	<i>Sarkidiornia melanotos</i>	R	W F	LM	Aqa Omn	S IV
22.	Brahminy Kite	<i>Haliastur indus</i>	UC	WD	R/LM	Car	S IV
23.	Pale Harrier	<i>Circus macrourus</i>	UC	T	WV	Car Fis	S I
24.	Grey Partridge	<i>Franolinus pondicerianus</i>	UC	T	R	Ins Omn	S IV
25.	Common Coot	<i>Fulica atra</i>	C	W F	LM/WM	Omn	S IV
26.	Kentish Plover	<i>Charadrius alexandrinus</i>	UC	W SP	WM	Ins Car	S IV
27.	Red-Wattled Lapwing	<i>Vanellus indicus</i>	C	WD	R	Ins Omn	S IV
28.	Herring Gull	<i>Larus argentatus</i>	R	W	WM	Aqa Car Pis	S IV
29.	Common Sandpiper	<i>Tringa hypoleuces</i>	UC	W SP	WV	Ins Omn	S IV
30.	Common Snipe	<i>Gallinago gallinago</i>	C	W F	WM	Aqa Omn	S IV
31.	Blue Rock Pigeon	<i>Columba livia</i>	C	T F	R	Gra Fru	S IV
32.	Ring dove	<i>Streptopelia decaocto</i>	UC	T	LM/WV	Gra Fru	S IV
33.	Rose-ringed Parakeet	<i>Psittacula krameri</i>	C	T F	R/LM	Fru Gra	S IV

Sl. No	English name	Scientific name	Abundance	Habitat	Status	Guild	IWPA
34.	Asian Koel	<i>Eudynamys scolopacea</i>	C	T	R/LM	Fru	S IV
35.	Brown Fish-Owl	<i>Ketupa zeylonensis</i>	UC	WD SP	R/LM	Pis Car PR	S IV
36.	Horned Owl	<i>Bubo bubo</i>	UC	WD	R/LM	Car	S iv
37.	Alpine Swift	<i>Apus affinis</i>	C	T	R/LM	Ins	S iv
38.	Small Bee-eater	<i>Merops orientalis</i>	C	WD	R	Ins	S IV
39.	Indian Roller	<i>Coracias benghalensis</i>	C	T	R	Ins	S IV
40.	Common Myna	<i>Acridotherus tristia</i>	C	T F	R	Omn	S IV
41.	House Crow	<i>Corvus splendens</i>	C	T F	R	Omn	S IV
42.	Jungle Crow	<i>Corvus macrorhynchos</i>	C	T F	R	Omn	V

Status : R -Resident; LM - Local Migrant; WV - Winter Visitor ; M - Migrant; Br- Breeding Visitor ; S - Summer Visitor ; P - Passage Migrant; Vg – Vagrant ; C – Common ; UC- Uncommon; SC - Scarce; R-Rare FC - Seen in flocks/ Gregarious; SP-Small Parties.

Food Habits (Basic Diet) : Aqa - Aquatic animals; Car - Carnivorous ; Fru - Frugivorous; Ins - Insectivorous ; Omn- Omnivorous ; Pis - Piscivorous; Pr - Predatory; Sca – Scavenger; See - Seed eaters; Sn – Snakes; Veg - Vegetarian; Nec- Nectarivorous; Crust – Crustaceans; Gra - Grainivorous

Wildlife (Protection) Act, 1972 : Schedule -I ; Schedule - IV; Schedule -V

Habitats : T - Terrestrial ; WL - Wetland ; WD - Wetland Dependent

The most dominant order Ciconiformes is represented by 10 species followed by Ansariformes with 8 species, Charadriiformea with 5 species, Peliconiformes, Passariformes with 3 species, Falconiformes, Columbiformes, Strigiformes, Corasiformes with 2 species, Galliformes, Gruiformes, Psittaciformes, Cuculiformes, Apodi-formes with 1 species respectively.

The family Anatidae, Ardedae are the most dominant with 8 species respectively followed by Chardidae With 4 Species Phalacrocoracidae with 3 species, Acciptridae, Columbidae, Strigidae, Corvidae with 2 species, Ciconidae, Threskiornithidae, Acciptridae, Phasinidae, Rallidae, Scolopididae, Psittacidae, Cuculidae, Aponidae, Coracidae, Strigidae with 1 species respectively. The present studies hint towards the fact that the threats to birds in Petcheruvu ponds in Lakhamdiddi is a multitude of surmounting irresponsible use of an invaluable natural resource as epitomized by traditional ponds. To mention a few of these; extremely polluted water linked with dumping of each and every discarded



Fig.- 2. Showing (a) Spot-billed pelican (b) Cormorant

item in the ponds. Most severe sources of polluting pond water is the cow-dung carried into the main-

stream by the run-off rainy water rendering it into a horrible black soup. The most dangerous adverse circumstance is the result of ever decreasing water capacity of ponds due to siltation, encroachment. An equal level threat is posed by the fish-farming practices on modern lines. It is pertinent to mention that the said pond was full of water and every corner was dotted with birds in December-January of the year gradually the Petcheruvu pond was in doldrums with low levels of water and migratory birds. The present studies highlight the cause for conservation of wetlands and their biodiversity and especially the wetland migratory birds. The urgency is verified due to the international significance of these globally threatened crucial birds of rare importance.

Strategies to conservation in future

- By involving the community we aim to instill respect and appreciation among the villagers towards the birds by conducting awareness and education programs and they in turn help to provide permanent, safe habitats for the birds. We will form a task force including the village representative, like minded NGO's, the Forest Department, the Revenue Department and the Police to carry out the field protection. And have at least two persons, trained in wildlife rehabilitation, to take care of the birds and the hatchlings due to unforeseen circumstances leading to injuries and fallen hatchlings,
- By enhancing the special bond between birds and people, we aim to look after the basic needs of the village by providing free medical assistance, primary education, and other general help and advice as a confidence-building measure for this project,
- By planting trees specifically for the birds to roost in, such as the tamarind and peepal as

these are the most attractive trees for the birds to roost in. This is urgent as the current habitat is deteriorating. By providing abundant supplementary trees and a comprehensive education campaign in all the nine area villages we will encourage the appreciation of the ten thousand acres wetland where most of the poaching takes place.

- To have volunteer as well as paid staff to prevent poaching and to rehabilitate injured birds that may be attacked as they are feeding in the wetlands. They can place nets under the trees and nests to prevent the chicks from falling to the ground and interact with the Forest Department and experts to take care of any of ones who do fall and rescue and rehabilitate them.
- These dwindling wetland habitats are highly susceptible to poaching and to natural disasters. We will lobby for this important home for the Pelicans and Storks to be officially declared a protected area. We will make substantial progress in all these areas mentioned above operating under this special protection which is based on the importance of the many Indian species and the arrival and presence of non-native species.

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