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Winter visitors of Atpadi Water Body

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Abstract- The present study was carried out to find out avian diversity during winter in and around Atpadi Water body, Atpadi. The present study was carried out for two years between June 2021 to May 2023. The study area is located 5 km southwest to Atpadi city. The study area falls under drought prone area of western Maharashtra. From November onwards when the water level starts to deplete and feeding ground gets exposed many resident migratory and migratory birds starts to visit this place. It is a perennial lake, rich in aquatic vegetation and harbors several kinds of birds in all the seasons. Grassland area, herb, shrub and trees located in the vicinity of lake that also provide food and shelter to these birds. Total number of 44 birds' species belonging to 16 families were recorded. But the future of this avian fauna is in danger due to rapid growth of plants and anthropogenic activities in the lake and destroying feeding ground.

Keywords: Avifauna, biodiversity, Atpadi.

INTRODUCTION

The Atpadi Water Tank, situated in the semi-arid zone of South-Western Maharashtra, serves as a crucial wetland ecosystem supporting a rich diversity of avifauna. Wetlands, as dynamic and productive ecosystems, provide vital feeding, nesting, and breeding habitats for a wide array of bird species. During the present investigation, a total of 44 species of aquatic and wetland-dependent birds were recorded, representing 16 families from the class Aves.

This chapter documents the avifaunal diversity observed, categorized by family, and discusses the ecological roles and behavioral traits of select species. Both resident and migratory birds were observed, highlighting the tank's importance as a seasonal refuge for migratory species originating from the Northern Hemisphere.

AVIAN DIVERSITY AND FAMILY COMPOSITION

The study recorded birds from the following families:

- Anatidae (7 species) – Ducks and geese
- Scolopacinae (8 species) – Sandpipers and allies
- Ardeidae (6 species) – Herons and egrets
- Threskiornithidae (4 species) – Ibises and spoonbills
- Alcedinidae (3 species) – Kingfishers
- Motacillidae (3 species) – Wagtails
- Ciconiidae (3 species) – Storks
- Phasianidae (2 species) – Game birds
- Phalconicidae, Phonicopteridae, Rallidae, Charadrinae, Recurvirostridae, Burhinidae, Glariolidae, Laridae – Each represented by a single species

These findings reflect the ecological richness and habitat heterogeneity of the Atpadi Water Tank, ranging from shallow marshes to open water zones.

RESIDENT VS. MIGRATORY SPECIES

A clear distinction was noted between resident birds, such as the White-breasted Kingfisher, Little Cormorant, and Wagtails, and migratory species, including the Greater Flamingo, Bar-headed Goose, and Northern Pintail. The migratory species primarily arrive during the winter months, following the Central Asian Flyway, using Atpadi as a stopover or wintering ground.

SPECIES ACCOUNTS

1. Cormorants and Herons (Family: Ardeidae & Phalacrocoracidae)
Species like the Little Cormorant and Grey Heron are expert fish hunters, often seen poised at water edges or diving underwater. The Little Egret and Median Egret are noted for their graceful wading and delicate

feeding techniques, while the White-bellied Heron, a rare find, indicates relatively undisturbed wetland conditions.

2. Storks and Ibises (Families: Ciconiidae & Threskiornithidae)
Large waders like the Painted Stork, Open-bill Stork, and White-necked Stork are regular visitors to marshy zones. Their slow, deliberate foraging behavior contrasts with the probing and active feeding of the White Ibis, Glossy Ibis, and Eurasian Spoonbill, which often forage in flocks using their long, curved bills.

3. Flamingos (Family: Phoenicopteridae)
The Greater Flamingo, a striking migratory species, stands out with its distinctive pink hues and large size. Its filter-feeding behavior, scooping up algae, crustaceans, and organic matter from shallow waters, was frequently observed.

4. Ducks and Geese (Family: Anatidae)
The tank hosts an impressive variety of ducks including the Spot-billed Duck, Common Teal, Northern Pintail, and Wigeon, along with geese like the Bar-headed Goose and Brahminy Shelduck. These species exhibit varied feeding strategies, from dabbling to diving, and feed primarily on aquatic vegetation, invertebrates, and grains.

5. Shorebirds and Sandpipers (Subfamily: Scolopacinae)
A high diversity of waders was recorded, including the Black-tailed Godwit, Spotted Redshank, and Common Greenshank. These species use their long legs and sensitive bills to probe into soft mud for invertebrates. Their presence signals the tank's ecological productivity.

6. Rails and Moorhens (Family: Rallidae)
Species like the Common Coot, Purple Moorhen, and White-breasted Waterhen inhabit the marshy fringes of the tank. These birds feed on aquatic plants, mollusks, and insects and are often seen navigating dense aquatic vegetation with their lobed feet.

7. Plovers and Stilts (Families: Recurvirostridae, Charadrinae, Burhinidae)
The Little Ringed Plover, Black-winged Stilt, and Great Stone Plover represent this group. They forage on mudflats and shorelines, preying on crustaceans, worms, and insects, often using stealth and quick jabs to catch prey.

8. Terns and Pratincoles (Families: Glariolidae, Laridae)
The River Tern and Small Pratincole are notable for their agile flight and aerial feeding techniques. River Terns were observed plunging into water for fish, while Pratincoles skim low over grasslands for insects.

9. Kingfishers (Family: Alcedinidae)
Three species—the White-breasted, Lesser Pied, and Small Blue Kingfishers—were commonly seen along the tank periphery. Their perch-hunt-dive strategy for catching fish is a vital indicator of fish population health in the wetland.

10. Wagtails (Family: Motacillidae)
The Yellow, White, and Forest Wagtails were observed scuttling along mudbanks and pasturelands. Their continuous tail-wagging behavior and insectivorous diet make them excellent indicators of terrestrial-invertebrate abundance.

ECOLOGICAL SIGNIFICANCE

The Atpadi Water Tank functions as a biodiversity hotspot and a critical wetland habitat, supporting a wide range of feeding guilds:

- Piscivores: Kingfishers, cormorants, herons
- Insectivores: Wagtails, plovers, sandpipers
- Herbivores: Ducks and geese feeding on aquatic plants
- Omnivores: Storks, ibises, and moorhens

The seasonal fluctuations in bird composition underline the importance of water level regulation and wetland conservation for maintaining avian diversity.

CONSERVATION IMPLICATIONS

The diversity and presence of migratory species at Atpadi reinforce the tank's role in the Central Asian Flyway. However, increasing threats from habitat degradation, pollution, encroachment, and unregulated fishing pose significant challenges. Community awareness, habitat restoration, and regular avifaunal monitoring are imperative for sustaining this ecological niche.

CONCLUSION

The Atpadi Water Tank supports a vibrant and diverse avian community. The presence of both common and rare species, including long-distance migrants, underscores its ecological and conservation value. Continued efforts in monitoring, documentation, and conservation will ensure this vital wetland continues to thrive as a sanctuary for birds.

REFERENCE

[1] Ali, S. (1996). *The Book of Indian Birds*. Bombay Natural History Society.
[2] Grimmett, R., Inskipp, C., & Inskipp, T. (2011). *Birds of the Indian Subcontinent*. Oxford University Press.
[3] Wetlands International (2020). *Asian Waterbird Census Guidelines*.