

**SHOREBIRD ASSEMBLAGES AND THEIR CHANGING HABITATS IN
RESPONSE TO PHYSICO-CHEMICAL FACTORS AT A HALOPHYTIC
ECOSYSTEM IN SOUTH-WESTERN INDIA**

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ABSTRACT

Worldwide, shorebird populations are declining as a result of human-caused stress and habitat degradation. Numerous shorebirds that spend the winter on the Indian subcontinent travel along the Central Asian Flyway. To identify changes in shorebird communities in response to habitat shifts, the present research examined the shorebird assemblages of the Kottapuzha Estuary, a brackish ecosystem in southwestern India. The research was carried out from June 2018 to June 2019. The study assessed the effects of increasing urbanization on physicochemical characteristics and avian assemblage. The correlation between shorebird abundance and rainfall data was investigated. Lower shorebird counts were recorded as a result of heavy rains during the monsoons. Sand beaches were considerably used as habitat throughout the research period, while mangroves and mudflats were less frequented by shorebirds. The diversity of waders gradually decreased through the year. Shorebirds increased their usage of less favored habitats probably in response to the physico-chemical alterations. Anthropogenic impacts on the marsh are significant, and prolonged pressure might lead to additional declines in shorebird assemblages. The findings suggest that in order to preserve and enhance the integrity of this wetland, certain human impacts should be lessened.

Keywords: Kottapuzha estuary; shorebird; brackish ecosystem; physicochemical characteristics; avian assemblage