

Pivotal reasons for the decline of the shorebirds in Kadalundi-Vallikkunnu Community Reserve, a key stop-over site in the west coast of India

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ABSTRACT

The past decade witnessed a massive alteration and loss of natural intertidal habitats that are of prime importance to large numbers of migrant shorebirds, especially at Kadalundi-Vallikkunnu Community Reserve (KVCR), first community reserve in Kerala, the west coast of India. It is also an international important stop-over site for shorebirds in the Central Asian Flyway (CAF). Eight hectares of mudflat - exposed during low tides- offer potential foraging ground for several hundreds of wintering and resident waterbirds, particularly shorebirds. During a span of ten-year period study from 2005 to 2014, we constantly monitored the key factors for the decline of diversity of shorebirds in KVCR and identified the following reasons for decline of shorebird populations *viz.*, incursion of mangroves, changes in sediment quality, expansion of sand bed and shrinkage of mudflats, decreasing thickness of mudflats, and indiscriminate total ban on husk retting. Being this is an example or model study under Central Asian Flyway, every restoration biologists should monitor the habitat keeping in mind the pivotal reasons of the concerned habitat change, and provide information and technical assistance on habitat protection and restoration to government, conservation biologists, and policy makers so as to protect natural environment as well as livelihood of layman around the community reserve. Our suggestion is to derive a fine strategic management plan, which is to be devised through an array of multi disciplinary research, so as to restore and conserve the habitat - Kadalundi-Vallikkunnu Community Reserve, the west coast of India considering its unique ecosystem services and functions.

Key words: community reserve; decline; habitat restoration; husk retting; mangroves; mudflats; sand bed; sediment quality; Shorebirds