

## RESEARCH ARTICLE

### NESTING RECORD OF GREAT WHITE EGRET *Ardea alba* in NALSAROVAR BIRD SANCTUARY, GUJARAT

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#### ARTICLE INFO

##### Article History

Received 20<sup>th</sup> February, 2025  
Received in revised form  
27<sup>th</sup> March, 2025  
Accepted 26<sup>th</sup> April, 2025  
Published online 30<sup>th</sup> May, 2025

#### ABSTRACT

On 27 July 2022, Great White Egret (*Ardea alba*) nests were observed at the main entrance area of Nalsarovar Bird Sanctuary, Gujarat, marking it as the first recorded occurrence of this species in the region. The bird, identified based on its distinct morphological features, was photographed and compared with standard literature for confirmation. The species was then observed continuously every year since 2022. This sighting highlights the importance of Nalsarovar Bird Sanctuary as a potential habitat for migrating and nesting birds.

##### Keywords:

Great white egret, Great egret, Eastern  
White egret, Nalsarovar Bird sanctuary

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Citation: Rajni Trivedi, Nikita Patel and Rohan Thakker. 2025. "Nesting record of great white egret ardea alba in nalsarovar bird sanctuary, Gujarat". *International Journal of Recent Advances in Multidisciplinary Research*, 12, (05), 11240-11242.

## INTRODUCTION

The Great White Egret (*Ardea alba*) is 'Least Concern' in the IUCN Red category list, which is also known as the Great White Heron, Eastern Great Egret and Great Egret. There are two subspecies of the Great White Egret which is recognized as (a. the ssp. *alba* and b. the ssp. *modesta*). The great egrets has a very large range of distribution, are found in the Nearctic as far South as Texas, The Gulf Coast States, Asia, and Florida up the Atlantic Coast to Marine and Southern Canada and west to the Great lakes (Connecticut Department of Environmental Protection, 2000). Also, the Great White Egrets are widespread and abundant throughout Asia and Australia, where they are generally known as Eastern Great Egret, which is the largest of all Egrets, is a beautiful terrestrial bird and well-protected as well. When seen in close proximity it is a magnificent bird, with its large size and clean white plumage. White Egrets are most often seen near the water forms like streams, lakes, ponds, mud flats, saltwater and freshwater marshes and so are inhabited by this beautiful bird. Wooded swamps and wetlands are preferred location for Great Egrets and any other heron species (Connecticut Department of Environmental Protection, 2000). Great Egrets are about a meter long from bill to tail, 1 meter tall, have a wingspan of 1.5 meters. On average, males are larger than females. The forehead is flat and in line with a long bill which is yellow in the non-breeding individuals and black in breeding individuals with dark gray legs. During flight

their neck is usually in an 'S' Shaped Curve. They are very elegant birds with plumage resembling Lace (Gough, et al., 1998, Illinois Department of Natural Resources, 1998; Sheehy 1998). In Asia, Great White Egret is native bird and some informal photographic records are available to online sources from Karnataka, Bharatpur, and Gujarat. Here, the white great egret has no previous formal records of nesting from Gujarat, making this sighting significant. In this note, we provide first-hand information about a recent sighting of Eastern Egret nests and first photographic evidence, of the Great White Egret in Nalsarovar Bird Sanctuary, Gujarat.

#### STUDY SITE

Nalsarovar bird sanctuary located at (23.0225° N, 72.5714° E) is situated 65 km west from Ahmedabad city and 60 Km east from Surendranagar city (22.7251° N, 71.6370° E), spreaded over more than 200 sq. km with adjusted wetland. It is natural lake with shallow water body and muddy lagoon with more than 300 islands and its surroundings where thousands of migratory birds arrive for wintering from central Asia, Europe, and Siberia and it has been identified as a potential Ramsar site, as well described by (Trivedi, 2024). The surrounding area has a rich diversity of trees and has very less human population density. The area does have the invasion of *prosohis juliflora* in and around the sanctuary It doesn't have a dense green habitat but still attract many migratory birds for



**Plates. Photos captured during the visits, Great egret can be seen as mating and nesting**

nesting, roosting and foraging. Kumarkhan, a nearby village once had Nesting/Heronry of Painted storks on the trees of *Acacia Nilotica* now doesn't have a single tree. But the water body provides good opportunity for food to birds as the area is well suited for nesting for many birds coming every year for nesting.

## METHODS

During a routine bird watching survey on 27<sup>th</sup> July, 2022, at Nalsarovar Bird Sanctuary, the first author observed a large size egret around 11:30 hours at the entrance area. The bird was photographed using a Canon EOS 200D with a suitable range of lens. Identification was conducted through a comparison with field guides and ornithological literature as Grimmett et al. (2018); also, literatures', including searches on Google scholar and Research gate, was performed to determine prior records of the species in Gujarat.

## OBSERVATIONS

The Great White Egret was identified based on its overall size; relative neck length, bill colour and shape, and how far the gape as of corner of mouth extends back in relation to the eye. It differs from the –A. non breeding cattle egret (*Bubulcus ibis*) which has similar coloration but are a third the size of great egret with a much shorter neck. B. The little egret (*Egretta garzetta*) which is much smaller, with a rapier- thin black bill.

Here, we have recorded the 3 pairs of white great egret with their nests. According to (Singh, 2021), breeding season begins in June-July. Here, Great Egret recorded during the breeding season. Breeding plumage also recorded which develops only on the back. This plumage may extend upto 10 cms beyond the tail and is used in courtship displays during which male bird may spread its plumes like a fan. Also, noted that during breeding and Courtship the region between eye and beak may acquire a bright green to olive green coloration (Adam, 2013). Great egrets are seasonally monogamous animals. Breeds once a year, the average time of hatching is 23- 24 days. The reproductive age is about 2 years for both male and females. Average lifespan is of 15 years in wild (Connecticut Department of Environmental Protection, 2000; Illinois Department of Natural Resources, 1998). Great Egret nests were noticed in mixed heronries on trees as it is a colonial bird and nests are built upon taller trees with sticks, twigs, and stems (Adam, 2013). Surrounding area sustains a rich food chain including fish, frogs, insects, skink, and invertebrates. Also, (Adam, 2013) mentioned that fish are primary food during nesting for Great Egrets but sometimes, they also include small fish, frogs, skinks, invertebrates and even small birds, which can be caught if they fly too close to a foraging Egrets. These favourable environmental conditions make it an ideal habitat that attracts both resident and migratory bird species for feeding and nesting. Every year, many birds come for nesting during winter; it is suitable for breeding with availability of their needs. The Great White Egret not recorded in Gujarat before which suggests this could be a vagrant occurrence or an indication of an under explored migratory

pathway. This sighting emphasizes the importance of Nalsarovar bird sanctuary as a potential stopover site for migratory and resident nesting birds.

## CONCLUSION AND RECOMMENDATION

The documentation of the Great White Egret at Nalsarovar Bird Sanctuary represents the first confirmed record of this species in Gujarat. This sighting contributes to the understanding of its distribution in India and underscores the need for further studies to record the status of Great white egret in the region. Nalsarovar bird sanctuary serves as an important habitat for migratory and resident species of birds for nesting, which needs continued monitoring and conservation efforts. Developmental activities should not be permitted in the five kilometers radius of the sanctuary area. Kumarkhan's Painted stork's Heronry's tree cutting was a great loss to the diversity of the area. Criminal cases should be filed against such acts in the future to protect such species and nesting sites.

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