

DISTANCE AND VEGETATION FACTORS AFFECT LITTLE EGRETS (ARDEA GARZETTA) HABITAT SELECTION IN NATURAL AND CONSTRUCTED WETLANDS

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1 ABSTRACT

In order to unveil main factors which affect habitat selection of little egrets for their perching and foraging, the survey was conducted in three wetland parks, Gouxuhe National Wetland Park, Huanhuaxi egret wetland park, and Bailuxi wetland park, in Sichuan province, China. The results showed that:

The guarding and flushing distances of little egrets were longer in natural wetlands than those in constructed or man-made wetlands.

Significant differences ($P < 0.05$) exist between experimental samples and control samples in distance from disturbed area, vegetation density, vegetation coverage, slope, distance from water surface, and distance factor and vegetation factor were two principal components.

Little egrets intended to inhabit in areas with gentle slope, dense vegetation, wide forest belt, short distance from water surface, long distance from disturbed area, and forest near a fork estuary.

There were significant differences ($P < 0.05$) between natural wetlands and constructed wetlands or man-made wetlands in three habitat factors. Which include distance from disturbed area, ground coverage and vegetation coverage. The distance from disturbed area was the most limiting factor in constructed wetlands.

Little egrets preferred to selected farmlands, fishponds, rivers and shallows as their foraging sites, and likely lived in shoals of artificial rivers and lakes in constructed wetlands.

In conclusion, great differences existed in egret habitat selection between natural wetland and constructed wetland, and there was a significant correlation between habitat factors in foraging and habitat selection, among which distance and vegetation factors contributed more to this selection.

1.1 Keywords

Natural wetlands, Constructed wetlands, Habitat selection, Egret