

## *Egretta garzetta* (Little Egret)

Family Ardeidae (Heron and Egrets)

Order Ciconiiformes (Storks, Herons and Ibises)

Class: Aves (Birds)



**Fig. 1.** Little egret, *Egretta garzetta*.

[[http://www.birding.in/birds/Ciconiiformes/Ardeidae/little\\_egret.htm](http://www.birding.in/birds/Ciconiiformes/Ardeidae/little_egret.htm), downloaded 30 November 2011]

**TRAITS.** The little egret (*Egretta garzetta*) is a small white heron, which can range from 55-56 cm in length, with a wingspan of 88-106 cm and weighs 350-550 grams (Wikipedia, 2011). The little egret has long legs black in colour with yellow feet and a thin black bill. The adult has two long gauzy nape plumes found on either side of the breast and back. Juveniles have a greenish bill with black markings, and greenish-black legs with pale yellow feet.

**ECOLOGY.** *Egretta garzetta* can be found in Trinidad, Europe, Africa, Japan, and most of Asia. The birds feed on the edges of lakes, reservoirs, rivers, brackish lagoons and salt pans. Little egrets create nests out of sticks in high trees, bushes, and on rocks. They breed in waterside trees and bushes. The little egret feeds on a variety of benthic organisms such as

molluscs and worms, fishes, insects and reptiles. They have a wide range of hunting techniques which they deploy in order to capture their prey. They stalk their prey in shallow waters, may stand on one leg while using the other leg to stir up mud which scarce prey seeking refuge in the mud. Some hunt close to floating vegetation in order to capture prey using the vegetation as a form of shade. They may crouch with their wing slightly outstretched, either to reduce sun glare or perhaps to create shade to attract underwater prey. Little egrets prefer to hunt alone, however when they hunt in groups, they all are spaced out and each individual aggressively protects their area. The birds in temperate areas migrate during the winter season as to find places for warmth and nesting. They migrate in large flocks.

**SOCIAL ORGANIZATION.** The little egret forages in a variety of social contexts, ranging from solitary foraging to large flock foraging (Yukiko, 2003). They prefer to forage in small groups than large groups in order to increase their foraging efficiency. It was suggested that little egrets forage in groups to feed efficiently and that their white plumage is advantageous for flock foraging because it attracts other egrets to feeding sites (Wong et al., 2000). Little egrets protect their foraging space by forms of aggression. They also keep territories where prey mobility is low and there is stability. The female lays 3-4 greenish-blue eggs at intervals of 1 or 2 days. Incubation begins from the laying of the first egg and last 21-25 days by both adults. The females tends to desert the nest at a higher rate than the males. Desertion of both sexes occurs 4 days after hatching, 40 % of the time from hatching to the independence of young (Masahiro, 1989). Small broods are deserted at a higher rate than large ones. The success or survival of the chicks is not affected after uniparental desertion. Deserters gain courtship coloration and constantly visit particular sites located away from their nest before desertion, which suggests that extra pair copulations are taking place. During biparental care it is found that males spend longer periods with their chicks during the day than females. Juveniles increase their foraging as they get older. This occurs because the juveniles undergo maturation of motor and perceptual skills, which is also affected by competition between age classes.

The adult birds are attracted to natural marshes habitat as oppose to other habitat. Rice fields and other agricultural marshes are the second type of habitats which are frequently populated by little egret. The availability of food and the stability of the habitats also affect the amount of little egrets that are found there. Habitats are affected by season such as in temperate climates where there are seasonal changes, and estuaries which are impacted by the tides, which also affect the population of little egrets which are found in the habitat.

**ACTIVITY.** Little egrets tend to feed in dense groups during the early morning. Later in the day the birds dispersed over the feeding area and foraged alone (Tourenq et al., 2001). The birds feed in small pools of open water within dense stands of submerged vegetation. In these areas respiration of macrophytes causes a depletion of dissolved oxygen in the water, forcing fishes to concentrate in the few areas of open water. After sunrise the dissolved oxygen increases, causing fishes to leave the pools and distribute into the vegetated parts of the marsh areas. This in turn causes the little egrets to abandon these areas. During rainy season or winter little egrets tend to migrate in search of proper nesting and feeding grounds. All the activities of the little egrets take place from sunrise, throughout the day and late afternoon. At night there is no light for the birds to perform their hunting. During migration the little egrets perform flying by folding their necks into their shoulder, and their legs and feet held out behind their bodies. They are able to take off from the water due to the long broad wings which are powerful as shown in

Fig. 2. Their flight is usually slow but strong. Due to flapping flights they are able to cover long distances.

**FORAGING BEHAVIOUR.** The birds stir the sand or mud sediments with one foot in order to drive their prey in a position where they are able to stab the prey with their bill beak as shown in Fig. 3. They may also stand on one leg while waving their bright yellow foot over the water surface, in order to attract prey in their range for attack. Some were observed feeding amongst vegetation in order to capture prey which were seeking shade from the sun. They would crouch with their wings slightly outstretched, in order to create a makeshift shade to attract prey, which they in turn launch an attack on. Another technique is to rush through the shallow water marshes in order to flush out prey. The birds prefer to feed alone. When they feed in groups they protect their feeding sites by means of aggression.

**COMMUNICATION.** There is a little information published about the little egret communication but they are mostly quiet so they would not to scarce away their prey. But they communicate by hoarse “kagarrk” or a long “aaahk” when it takes off or during disputes on feeding areas (Bouglouan, 2005). They also perform courtship when in mating season in order to communicate with their mate.

**SEXUAL BEHAVIOUR.** The breeding season starts after the male arrives first on the breeding area. There they begin to gather materials for the nest site. The male egret then performs a courtship display by posting its head, neck, and bill pointed upwards, while the nuptial long feathers and bright colours of bare parts are being shown. Males also perform bill clapping and also flying around the nesting site with outstretched neck while beating their wings slowly. The male birds also protect the nest from other males. When females become attracted both mates perform aggression which gradually lessen, their behaviours become less violent and the birds perform mutual preening at the nest (Bouglouan, 2005). Then the both adults construct the nest and copulation takes place.

**JUVENILE BEHAVIOUR.** At hatching, the chicks are covered with white down, and they have pink bills and their legs turn bluish-grey very soon (Bouglouan, 2005). Biparental feeding takes place directly in to the hatchling bills. When the broods are three weeks old, they are able to climb out onto the close branches. At five weeks old they are able to fly on their own and practice feeding by themselves. They would not be as skillful hunters as the adult little egrets but as time passes they develop maturation of motor and perceptual skills.

**ANTI-PREDATOR BEHAVIOUR.** The anti-predator behavior of little egret is one where they move in a group, as to protect themselves from predation by early warning of predators. It may also minimize the impact of territorial predators. They also perform anti predation, by selecting their nest sites such as in tree trunks and on the edge of cliffs where it would be hard for terrestrial predators to access. The little egrets in their groups may not mob predators because it is ineffective and/or dangerous (Scott, 1989). Mobbing would be ineffective due to the little egrets being clumsy fliers compared to colonial terns and swallows which are some of the predators.

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Posted online: 2011



**Fig. 2.** *Egretta garzetta* in breeding plumage actively catching prey.

[[http://en.wikipedia.org/wiki/File:Little\\_Egret\\_\(Egretta\\_garzetta\)-\\_In\\_Breeding\\_plumage-actively\\_catching\\_preyn\\_in\\_Kolkata\\_I\\_IMG\\_7962.jpg](http://en.wikipedia.org/wiki/File:Little_Egret_(Egretta_garzetta)-_In_Breeding_plumage-actively_catching_preyn_in_Kolkata_I_IMG_7962.jpg), downloaded 11 November 2011]



**Fig. 3.** Little egret fishing.

[<http://www.oiseaux-birds.com/card-little-egret.html>, downloaded 25 October 2011]