Bubulcus ibis (Cattle Egret)

Family: Ardeidae (Herons and Egrets)
Order: Ciconiiformes (Storks, Herons and Ibises)
Class: Aves (Birds)

Fig. 1. Cattle egret, *Bubulcus ibis.*
[http://www.richard-seaman.com/Birds/Mexico/RioLagartos/index.html, downloaded 14 November 2012]

TRAITS. *Bubulcus ibis*, commonly called the cattle egret, is a medium sized heron, characterized by a white plumage, a yellow bill, short dull orange legs, a thick neck and a hunched posture. The length of the bird has a range of 46-56cm, a wingspan of 88-96cm and the average weight an adult is 270-512 g (Ivory, 2000). The young cattle egrets are also white but their bills and legs start off with black coloration that changes to yellow as they age (Nature works, 2012). During the breeding season, the adults' appearance alters with their eyes, bills and legs changing to a red colour and their backs, necks and heads becoming buff.

ECOLOGY. The cattle egret is a true cosmopolitan bird and can be found in the warm temperate zone, tropics and the subtropics. It is distributed to all parts of the world, although originating in Africa, from where it apparently dispersed naturally, reaching Trinidad in the 1950s and Tobago in the 1960s. In the Western Hemisphere, their breeding ground spans from Canada and the United States southwards through the West Indies to South America. They are also found India, China, Japan and the Ryukyu Islands in Southeast Asia and throughout the Philippines and East Indies towards Australia and New Guinea (Frankis, Hole and Tasirin, 2012). They usually inhabit and feed in habitats such as dry fields, farmlands, grasslands and artificial grassland such as lawns, parks, road margins and sports fields, wetlands such as rice fields, flood-plains, freshwater swamps, wet pastures, shallow marshes and mangroves (Butchart, Ekstrom and Malpas, 2012).

SOCIAL ORGANIZATION. The cattle egret is a very sociable bird. They tend to settle in large colonies often with other species of birds and they also migrate with other similar birds. They have a high association with grazing animals and can be seen hanging around them or tractors that disturb grassy areas (Ivory, 2000).

ACTIVITY. The cattle egret is a diurnal animal; it feeds during the day and sleeps during the night (Butchart, Ekstrom and Malpas 2012). This bird does most of their feeding during the mornings and the evenings with least amount during the mid day (Siegfried, 1971). Their habit also reflects that of foraging animals that usually rest during the mid day when the sun is the hottest (Seedikkoya, Azeez and Shukkur, 2005). They usually feed in small group of 20 birds or less, but when food is plentiful, they gather in very large numbers, hundreds or even thousands. When roosting at night, their numbers are very large. They are strongly migratory birds and have a tendency to disperse long distances. It is often challenging to distinguish between migration and dispersal as the birds tend to disperse very far. When in flight, their necks are tucked in closely to their bodies or held in an S-shape. Their necks are hardly ever extended even when resting. They walk in a swaying manner, similar to that of a goose (Ivory, 2000). After being in water, they periodically flap their wings for approximately 10 minutes. When they become less wet, the flapping decreases to a gentle wave. They also regularly shake their heads and bodies, flick their heads and wag their tails in an effort to dry out (Grubb, 1976). When flapping subsides, preening takes place and can last for 30 minutes. The neck is held erect and the beak is inserted into the feather located lower down on the neck. By pushing, nibbling and stroking, the feathers are pushed into place and this is continued down to the breast, the belly and sides and under the wings of the body. The back of the bird is preened by twisting its head around to reach it. The head is preened by rubbing it over its back or under its wings. Scratching is down by lowering the neck to one side of the body as well as bringing up a foot to scratch the area by the ear (Grubb, 1976).

FORAGING BEHAVIOUR. The cattle egret has been seen to forage in small groups or by themselves in dry fields or farmlands or any other type of grazing areas (Ivory, 2000). They are opportunistic foragers, and usually follow grazing animals or moving vehicles such as tractors in order to take advantage of the “beating effect” where prey are disturbed and flushed out of their habitats making it easier for the cattle egret to capture them **(**Seedikkoya, Azeez and Shukkur, 2005). The most favoured food include insects such as flies, grasshoppers, spiders, crickets, moths, beetles and larger prey such as frogs, fishes, crayfish, small snakes and even nestling birds and bird eggs (Ivory, 2000). When feeding, they walk at a steady pace followed by short forward darts then a swift stab. Small prey are swallowed immediately (Ivory, 2000). They also

forage through garbage heaps in search of edible items. These birds also consume inanimate objects such as twigs, as mostly seen in young birds. When young birds start to venture out of the nest, they explore and peck at twigs, sometimes swallowing them. When feeding on insects such as grasshoppers, they first have to peck at it and also beat it against the ground before they can swallow it. When adults capture large prey such as frogs or lizards, they kill them by pecking them to death. The food is then carried in its beak to the nearest available water and dipped in it a few times before swallowing the food whole (Siegfried, 1971). Cattle egrets that associate their feeding with grazing animals obtain their prey at a much quicker rate and expends much less energy than ones that do not associate with grazing animals (Seedikkoya, Azeez and Shukkur, 2005).

COMMUNICATION. These birds are usually quiet especially when they are alone. They do not have any characteristic calls for flocking or flying. It has a "rick – rack" simple voice that is used when breeding in colonies (Kaieteur News, 2012). They show aggressive defensive behaviour during the breeding season by erecting their crest. A male will defend his territory until he finds a mate. Once paired, they will both defend the nesting territory together (Ivory, 2000).

SEXUAL BEHAVIOUR. Breeding usually starts when a cattle egret is about 2-3 years old (Frankis, Hole and Tasirin, 2012). They are a monogamous species. Before the mating begins, males first claim their territories. They then perform various displays such as a swaying movement from side to side with their plumes raised, stretching their necks out and making short flights while exaggerating their wing beats in order to attract the females. When a female has chosen a suitable mate, she suppresses his displaying by landing on his back. After the pair has bonded, the female follows the male to another location where copulation takes place and where the nest will be built. The nests are usually built on trees, shrubs or bushes, swamp or mangrove. They usually prefer areas that overhang or are surrounded by water. The nests are built by the females from materials such as twigs and vegetation, and sometimes sticks stolen from other egret nests, which are gathered by the males (Butchart, Ekstrom and Malpas 2012). A female usually lays 3 – 4 pale blue eggs, laying one every two days. However the range of eggs laid that have been recorded is 1 – 9 (Frankis, Hole and Tasirin, 2012). Throughout this period, when one bird leaves the nest, upon its return, it is greeted by a ceremony which involves erecting its plumes and or flattening its chest feathers (Ivory, 2000). Only when the last egg is laid, then the female puts attention to the nest. Incubation of the eggs is done by both the male and female and last for 24 days (Masterson, 2007).

JUVENILE BEHAVIOUR. Hatching is asynchronous, i.e. the first laid egg is the first to be born since the incubation of the eggs starts before the laying is completed (Fujioka, 1985). The young are able to move about in the nest when they are 14 – 21 days old and at 45 days old they become independent. When they are 50 days old they are able to make short flights and when they are 60 days old, they fly to foraging areas (Ivory, 2000). Both parents participate in the feeding of the young. When all chicks have hatched, there is tremendous competition between siblings from day 4-8 (Ivory, 2000). The older ones tend to have a higher survival rate as they outcompetes the younger ones for food and grow faster.

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