

Ardea cinerea (Grey Heron)

Family: Ardeidae (Hérons and Egrets)

Order: Ciconiiformes (Storks, Herons and Ibises)

Class: Aves (Birds)



Fig. 1. Grey heron, *Ardea cinerea*.

[http://www.google.tt/imgres?imgurl=http://www.bbc.co.uk/lancashire/content/images/2006/06/15/grey_heron, downloaded 14 November 2012]

TRAITS. Grey herons are large birds that can be 90-100cm tall and an adult could weigh in at approximately 1.5 kg. They are identified by their long necks and very powerful dagger like bills (Briffett 1992). They have grey plumage with long black head plumes and their neck is white with black stripes on the front. In adults the forehead sides of the head and the centre of the crown are white. In flight the neck is folded back with the wings bowed and the flight feathers are black. Each gender looks alike except for the fact that females have shorter heads (Seng and Gardner 1997). The juvenile is greyer without black markings on the head and breast. They usually live long with a life span of 15-24 years.

ECOLOGY. The grey heron is found in Europe, Asia and Africa, and has been recorded as an accidental visitor in Trinidad. Grey herons occur in many different habitat types including savannas, ponds, rivers, streams, lakes and temporary pools, coastal brackish water, wetlands, marsh and swamps. Their distribution may depend on the availability of shallow water (brackish, saline, fresh, flowing and standing) (Briffett 1992). They prefer areas with tall trees for nesting

(arboreal rooster and nester) but if trees are unavailable, grey herons may roost in dense brush or undergrowth. They are migratory, dispersing widely after the breeding season (Hancock 1999). Most of the migratory movements occur at night, in small groups or larger flocks of 200-250 birds (Briffett 1992). The species breeds in spring and summer in temperate areas, and in any month of the year in Africa and the tropics, but mainly during the rains. Although they are solitary they breed in mixed colonies of 100's or 1000's or pairs and nest in groups that may contain 2-10 nests (Hancock 1999). These nests are often reused over successive years. They feed at no specific time but would be most active at dawn or dusk. Their nesting sites are usually in close proximity to their preferred feeding area.

SOCIAL ORGANIZATION. Mostly solitary but may feed together where food is abundant. During the breeding season they construct nests on tall trees which must be in close proximity to water where they hunt for food. The males do most of the work as they bring the material and the females remain in the nest all day and do the construction of the nest. They both actively partake in the incubation of the eggs and the males aggressively defend females and unhatched eggs. On hatching the young chicks are fed by both parents (Briffett 1992). Both parents also play their parts in the protection of the chick from harsh weather conditions (rain and sun). The two parents would stay together the entire breeding season as the chick matures. The young would stay with the parents for extended periods of time even after they have fledged and are capable of leaving the nest (Hancock 1999).

ACTIVITY. They are mostly active from dusk to dawn where they would sit and wait for very long times in pursuit of prey. Hunting in these times gives them an advantage over their prey as the prey organism would be unaware of its presence. They would feed at any time as long as food is available. They are somewhat scavengers as were seen to prey on anything, usually snatching aquatic prey in shallow water.

FORAGING BEHAVIOUR. The grey heron feeds on a wide range of prey items but is primarily piscivorous (eating fish). Their diet consists of fish, insects, crustaceans, frogs and small mammals. They forage for food both on land and in the water (Hancock 1999). They wade through the shallow water in search of food by walking slowly at the edge watching for available fish. They are known to prey more on the sick or weak fish as they are much easier targets (Briffett 1992). May be most successful in capturing prey in moonlight where they have the advantage. By standing still, they wait for the prey to approach in the water and with a quick stab through the water they capture the prey with their bill and swallow it whole (as it may be regurgitated for chicks in the nest). In deeper water it would stand still on one foot and wait for extended periods of time for prey (Hancock 1999). There are many strategies used by the grey heron to attract prey items, it may use wings to frighten the prey by alternately opening and closing its wings to attract prey into the shade produced by the shadow of its wing (Briffett 1992). This also reduces the light from the sun for better visibility into the water. It uses its feet sinking one into the water or mud in order to frighten the prey.

COMMUNICATION. Grey herons show aggression through use of their neck. When they are threatened (a nuisance draws near) they perform a stabbing motion with their head and raise their crest. Generally maintain a safe distance from individuals of other species. They are not very social birds and there is little need for communicative behavior except during the breeding season where they try to attract mates (Briffett 1992). The males use advertising calls to attract the females during the breeding season. The sound produced is a harsh cry similar to that of other

herons. This is followed by stretching their wings and pointing their bills upwards to initiate preening. The use of auditory, visual, tactile and chemical stimuli is to perceive their environment. Vocal communication is achieved with a very unpleasant, hard and high pitched croaking “freak” sound in flight (Hancock 1999). These sounds can be heard at night in the nests.

SEXUAL BEHAVIOUR. The breeding season of the grey heron varies according to the range. At the beginning of the breeding season the males select resting sites which are usually in tall trees. They make low grating calls which are used to attract potential mates. The females may choose a mate by approaching the nesting site (Briffett 1992). Both sexes consent before pairing and then mating would occur. Disinterested males often chase females from their nesting site in the demonstration of their lack of interest. Once the male attracts a female it begins a series of courtship behaviors that include neck stretching, thrusting and bowing (Hancock 1999). A courtship dance is performed by the males which includes lunging and bill clapping and is used to attract and impress females. The pair then engages in mutual grooming behavior called allopreening (Briffett 1992). They then form a monogamous pair and remain together throughout the breeding season. The female would lay and raise one brood during the breeding season. They would only lay another brood if the first is somehow lost (two broods is very rare among the grey heron). Each female lays an average of 3-5 eggs per season. They may even lay up to 10 eggs which takes 25-26 days to hatch (Hancock 1999).

JUVENILE BEHAVIOUR. From the time the eggs hatch they are fully dependent on their parents for food. Parents regurgitate food onto the nest and the hatchlings then compete for the food and parental care. This competition can result in severe fights and even siblings killing each other. The young would remain with the parents for an extended period of time before they can leave the nest. The hatchlings fledge after approximately 50 days in the nest but are only fully independent at about 8-10 weeks (Briffett 1992). Mortality rate is the highest during the first year of their life (67%). They become sexually mature about one year after hatching.

ANTIPREDATOR BEHAVIOUR. Due to their heavy consumption of fish in the wetland they are killed by fish farmers (Hancock 1999). Grey herons, like many other bird species, show aggression through use of their neck, when a threat or a nuisance draws near, grey herons perform a stabbing motion with their head and raise their crest which is their means of protecting themselves in the face of danger. They would usually take cover in trees to escape predators which is the safer option since their vision is hindered by lack of light.

REFERENCES

- Briffett, C. (1992). *A Guide to the Common Birds of Singapore*, BP Science Centre, (p. 43: habit, habitat).
- Hancock, J. (1999). *Hérons and Egrets of the World: A photographic journey*, Academic Press, (p. 28: identification, distribution, status, feeding, breeding, photos of adult and juvenile).
- Seng, L. K. and Gardner, D. (1997). *Birds: An Illustrated Field Guide to the Birds of Singapore*, Sun Tree Publishing Ltd, (p. 83: identification, status in Singapore, distribution, diagram showing the differences with similarly shaped herons, number of species).

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Fig. 2. Grey heron about to consume its catch.

[<http://www.google.tt/imgres?imgurl=http://www.birdingworld.co.uk/images/GreyHeron>
downloaded 14 November 2012]



Fig. 3. Grey heron foraging in water.

[<http://www.google.tt/imgres?imgurl=http://www.wildaboutdevon.co.uk/wp-content/uploads/2009/07/grey-heron>
downloaded 14 November 2012]



Fig. 4. Grey heron during the breeding season in its nest.

[<http://www.google.tt/imgres?imgurl=http://besgroup.org/wp-content/uploads/HeronGr-nest-build>
downloaded 15 November 2012]

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