

Cathartes aura (Turkey Vulture or King Corbeau)

Family: Cathartidae (New World Vultures)

Order: Falconiformes (Diurnal Birds of Prey)

Class: Aves (Birds)



Fig. 1. Turkey vulture, *Cathartes aura*.

[http://www.allaboutbirds.org/guide/Turkey_Vulture/id, downloaded 3 November 2012]

TRAITS. The turkey vulture also known to the Caribbean as the king corbeau or john crow is the most widespread of the new world vultures. The turkey vulture is noted for its ability to thrive in a wide range of climates making them a major predatory organism. That fact is also emphasised by their increase in north America during the period 1990-2002 (Avery, 2004). They are 25-32 inches long having a wingspan of about 6 feet with healthy adults weighing 850-2000 g (Burton & Burton, 2002). Their head is relatively small, bald and red in colour with the tips of the beak white and pointed. The feathers of the turkey vulture are relatively black but the wings are two toned with dark and silvery edges (Icenoggle, 2003). The feet of the vulture are small and curved with 3 toes forward and one toe backwards they also have very small and conspicuous eyes (Fig. 1). They are excellent fliers gliding for long distances without flapping their wings, it has been calculated that they fly at 40 miles per hour (Burton& Burton, 2002).

ECOLOGY. The turkey vulture has a wide habitat range inhabiting conditions of varying extremes including rainforest and desert ecosystems. They extend from the United States into Central America and South America, and Trinidad. The turkey vulture spends a lot of time in flight with their wings in a shallow V-shape (dihedral). In flight they search for food with their

main source coming from carrion (Icenoggle, 2003). Besides their main food source from carrion, they were also observed removing eggs from nest and the nestlings of seabirds from the Peruvian guano islands (Burton& Burton, 2002) Due to the advantage of flight their feeding is not restricted to one particular habitat. In their habitat they lay perched on trees waiting for the ground to heat up in order for air currents to rise to be able to take off in flight (Burton& Burton, 2002).

SOCIAL ORGANISATION. Turkey vultures are the mildest of the new world vultures. They are usually in flocks resting on trees (Burton& Burton, 2002) but they eventually leave the flocks behind to forage on their own. Even though more than one arrives at a food source they draw back allowing one to feed at a time (Erickson, 2012). A peculiar behaviour is observed in the period before the breeding season where groups of vultures in groups of six do a particular dance hopping with their wings outstretched (Burton& Burton, 2002). This is probably the only extreme group behaviour observed due to the mild nature of this particular vulture species. Following this dance is mating where the females lay white eggs on the floor of a cave or in hollow trees. Both males and females take turns incubating eggs and caring for young for about 10-11 weeks (Erickson, 2012). After this time period they stay in flocks and then leave when required in searching for food.

ACTIVITY. Most of turkey vultures do not migrate. However, in extreme seasonal environments they do. In the Andean population they migrate to lower levels in the winter while in dry areas in north America they move south to areas of México (Burton& Burton, 2002). During the day time when there is light available they fly high in the sky looking for prey to forage on. At night they assemble back in their large roost in most cases on tree branches usually the same spot every night. They are diurnal species, active during the daylight foraging flying high in the sky, mating or taking care of young.

FORAGING BEHAVIOUR. They forage during the day flying high surveying the land for food. Their appetite is satisfied with carrion which may be fresh or decomposed. Turkey vultures have small bills and compared to other vultures they prefer rotten flesh (Burton & Burton, 2002). With their characteristic bald and narrow head they are able to forage more efficiently and reduce the risk of bacterial infection due to accumulation of bacteria from rotten flesh on their heads. They find food by using their sight and keen sense of smell. Their olfactory system is well developed with a large number of nerve endings which makes them able to locate food even under thick canopy cover in rainforest. They only gain limited benefits from roost centred food information transfer (Prior and Weatherhead, 1991) and for this reason they are better off foraging on their own. An interesting behaviour is the ability of turkey vultures to locate food before other vultures but due to their mild nature they were easily displaced by the larger vultures without any fight. It is because of this reason they only look for food that are small so they can consume it fast before the larger black vulture comes (Buckley, 1995). After hatching the young birds are fed regurgitated food from adults until they are older, to roost with the flock and go hunting for their own meal.

COMMUNICATION. The young birds after hatching are very noisy producing a hissing sound when disturbed (Vogel, 1950). The adults on the other hand do not have well developed vocal cords as a result there is little vocal communication. An alternative form of communication which may be observed is the circle dance (Burton& Burton, 2002) when the vultures hop with their wings expanded. This behaviour tells you that mating is about to begin. The main centre for

information is when all the vultures assemble in the night at their roosting sites. The study suggests that the roost serves as an information centre where the locations of foraging patches are passed on to unsuccessful vultures (Buckley, 1996). In foraging the main sense used to locate food patches is the olfactory system with less reliance on vision.

SEXUAL BEHAVIOUR. The breeding season for the turkey vulture starts in March reaching its highest points in April, May and continuing to June. At the beginning of the season the dance is performed as mentioned above, when vultures flying above sees this behaviour they fly down (Brown, 1986). They do not make nests to lay eggs, they usually lay it in holes dug in the ground. The females usually lay two white coloured eggs with dark brown spots. Both males and females incubate them until they hatch after 30-40 days (Brown 1986). The chicks are helpless so the adults feed them by regurgitating food, this last for 10-11 weeks (Brown 1986). The adults and chicks remain with each other until fall and then they go their separate ways.

JUVENILE BEHAVIOUR. When eggs hatch the young are helpless and needs adult help in foraging. Some of the young will even eat directly from the adult's mouth. The young birds within a week of hatching are very noisy and when threatened they begin to hiss. (Vogel, 1950) They may even pick at each other following feedings (Vogel, 1950).

ANTIPREDATOR BEHAVIOUR. The turkey vulture is a top predator, and there are few predators of this bird. While in the juvenile stage, in the presence of danger the young birds begin to hiss and make frantic noise. In the adult stage when danger is encountered from other animals they regurgitate their food (Fergus, 2000). This behavioural response may drive the predator away due to the foul sent of the rotten flesh or they may obtain a source of food with little energy expended, and so leave the vulture alone.

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Author: Darrel Lutchman

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Fig. 2. Turkey vulture with carrion food.

[<http://naquillity.blogspot.com/2010/05/pulled-over.html>, downloaded 5 November 2012]

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