Buteogallus anthracinus (Common Black Hawk)

Family: Accipitridae (Hawks, Kites and Eagles)
Order: Falconiformes (Diurnal Birds of Prey)
Class: Aves (Birds)

Fig.1. Common black hawk, *Buteogallus anthracinus*.
[http://www.arthurgrosset.com/sabirds/commonblack-hawk.html, downloaded 5 November 2012]

TRAITS. The common black hawk has a rugged appearance. The body of the common black hawk is relatively small in comparison to the wings which are very broad. This is a midsized hawk with a wing span more than twice the body length. The length of *Buteogallus* is 21 inches, while the wing span measures 46 inches. The females are larger than the males. This bird is black in colour and has a brownish tinge with one conspicuous broad white bar in the middle of the white-tipped tail. The eyes are brown in colour with the cere, lores, and gape having a bright yellow colour. The legs are also yellow and the bill is black, becoming yellow at its base. The immature black hawk is dark brown with buffy streaking and the eye colour is a medium brown colour (The Raptor Center 2011). This description is clearly seen in Fig. 1.

ECOLOGY. The black hawk can be found near aquatic systems within their range and their distribution is restricted within their habitat due to certain requirements. They can be found throughout the year in areas which have certain types of vegetation such as scrub, mangroves, and woodlands. This type of vegetation must also be on the border of beaches, lagoons, mudflats, swamps, and streams (Boal 2001). The black hawk depends on mature broadleaf trees along streams which have a constant flow of water to build their nests. However, some nests were reported to be located along intermittent watercourses where small reservoirs of water may be present in the breeding season. These nests are usually located in groves of high trees such as cottonwoods as opposed to single trees (Boal 2001).

SOCIAL ORGANIZATION. Not much is known on most aspects of social behaviour of *Buteogallus.* However, they are primarily solitary when migrating but there have been instances where it was observed that a mated pair of the birds left the breeding area on October 3rd for the migrations which occurs in the autumn (Schnell 1994). This is shown in Fig. 2 which shows a pair in flight. When flying in pairs, their wings are held at strong dihedral angles while fluttering. They also produce very loud hoarse whistles (Steinwand 2001). During courtship, the hawks display many different actions to attract a mate. These may include soaring with flights in a wave like motion, dangling of the legs, exaggerated wing beats as well as vocalizations (Schnell 1994). The male usually swoops down on the female or remains perched near to her for sometime before he mounts (Steinwand 2001). During the nest building process, both sexes of *Buteogallus* participate, however, during the incubation period, the female remains fairly close to the nest or present at the nest, while the males are away foraging to provide for the nest. This is seen in Fig. 4 which shows the female present at the nest with the young. After hatching, the female usually spends around 50- 100 % of her time at the nesting site until the 22nd day which is approximately halfway through the nestling period. After the nestlings have learnt how to fly well enough, they may be seen soaring with the parents at around 80 days after hatching (Schnell 1994).

ACTIVITY. The common black hawk is mostly active during the day. This is because *Buteogallus* preys on its food by swooping down from the sky and grabbing them. This is best done in day light since it makes the prey easier to distinguish in the surrounding environment. Also, when the hawk needs to migrate, this would be better suited for the day time as well since it can fly more accurately by using reference points in the surrounding environment to get to its destination. Also, the hawk is not known to possess any kind of special abilities to allow it to be active during the night time (Boal 2001).

FORAGING BEHAVIOUR. The common black hawk is a year-round ground hawker which means that it forages for its food using this technique throughout the duration of the year. *Buteogallus* consumes mostly vertebrates which include fish, frogs, young birds and snakes (Boal 2001; Steinwand 2001). A favourite of the common black hawk is land crabs which it consumes whenever it is available. The common black hawk also supplements its diet with a range in insects which include grasshoppers and caterpillars (Steinwand 2001). *Buteogallus* hunts very low to the ground in mostly weedy vegetation and captures its prey either in the air or on the ground with a swooping action and captures its prey with its feet. The feet have specialized toes which help to subdue the prey. The toes can be seen in action in Fig. 5 which shows the bird holding a fish very soundly in flight. When the prey is under control, the hawk then proceeds to peck with its beak (De Graaf et al. 2005).

COMMUNICATION. Not much research is done on the communication of *Buteogallus*, however, during the nesting season, it was observed that the common black hawk produces loud, hoarse whistles which are similar to the sound produced by the night heron (Steinwand 2001). The male *Buteogallus* also tries to get the attention of the female for mating by producing sound and performing gestures such as exaggerated wing beats. These actions are used to get the interest of the female and may serve as a way to impress her. Some individuals also respond to vocal imitations of calls which are similar to their own which could imply that they use these calls to communicate information about their presence to each other (Boal 2001).

SEXUAL BEHAVIOUR. There are some variations in the pattern of breeding by *Buteogallus*, an example of this is seen where courtship is initiated as soon as January in Trinidad and February in Panama while migrant birds initiate courtship displays when they arrive at their breeding areas in early March. The male courts the female common black hawk with various actions which include undulating flight, leg dangling, exaggerated wing beats and vocalizations (Boal 2001). Once the female shows interest, he then swoops in and mounts her, or perches next to her for a short time and then mounts her. This is seen in Fig. 3 which shows 2 individuals perched close to each other. There may be up to 4 couplings on a daily basis as the egg laying period draws closer (Steinwand 2001; Schnell 1994). Both sexes take part in the nest building process which usually begins in late March into early April for birds that mated in early March. As the egg laying period draws closer in mid April to mid June, the female tends to become much calmer (Boal 2001). They produce only between 1-3 eggs which is a relatively small number in comparison to other bird species. The eggs produced by *Buteogallus* have a grainy surface which is grayish-white in colour and has small specks and blotches, as shown in Fig. 6 (Steinwand 2001).

The incubation period for the eggs is approximately 38-39 days (Steinwand 2001). During the incubation period, the males forage for food for the nest while the female spends the majority of time in the nest. During the incubation period, the mother is very defensive of the area around the nest. Once the eggs have hatched the females may spend anywhere between 50-100 % of their time at the nesting site until the 22nd day which is around halfway through the nestling period (Boal 2001).

JUVENILE BEHAVIOUR. After about 46 days, the nestlings begin to spread their wings and practice flying. As time progresses, they practice more and more and by day 70 they are able to fly fairly well. By day 80, the juveniles are able to fly well enough that they can soar with their parents (Boal 2001). After about 2 months, the chicks stop begging for food as they are able to find food for themselves (Schnell 1994).

ANTIPREDATOR BEHAVIOUR. The common black hawk is a bird of prey with no real predators known. The nests of the bird may be vulnerable to other birds if left alone, however, the mother stays within a certain range of the nest when feeding and is very protective of the nest site against visitors (Boal 2001).

REFERENCES

Boal. C.W. (2001). "*Strategies for Monitoring Common Black Hawk (Buteogallus anthracinus) Populations in North America*." USGS. (accessed November 05, 2012) <http://srfs.wr.usgs.gov/pdf/BUANstrategy.pdf>

De Graaf R.M, Tilghman N.G, Anderson S.H. (2005). "*Foraging Guilds of North American Birds*," SpringerLink. (accessed November 07, 2012) <http://www.springerlink.com/content/v234847p827562w1/>

Schnell, J.H. (1994). "Common Black-Hawk (*Buteogallus anthracinus*)." *In* The birds of North America, No. 122 (A. Poole and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.

Steinwand, J. (2001). "*Buteogallus anthracinus*" (On-line), Animal Diversity Web. (Accessed November 07, 2012) <http://animaldiversity.ummz.umich.edu/accounts/Buteogallus_anthracinus/>

The Raptor Center. (2011). "*Common Black Hawk*". The University of Minnesota (Accessed November 07, 2012) <http://www.raptor.cvm.umn.edu/EducateandLearn/AboutRaptors/CommonBlackHawk/home.html>

Author: Randy Mohan

Posted online: 2012

Fig. 2. A pair of common black hawks in flight.

[http://www.pbase.com/redionne/image/110295253, downloaded 9 November 2012]

Fig. 3. A pair of common black hawks perched on a tree.

[http://www.critterzone.com/animal-pictures-nature/bird-hawk-common-black.htm, downloaded 9 November 2012]

Fig. 4. A mother common black hawk in a nest with her young.

[http://www.flickr.com/photos/ned_harris/4742209759/sizes/l/in/photostream/, downloaded 9 November 2012]

Fig. 5. A common black hawk with prey in its grip.

[http://www.richard-seaman.com/Birds/Mexico/RioLagartos/index.html, downloaded 9 November 2012]

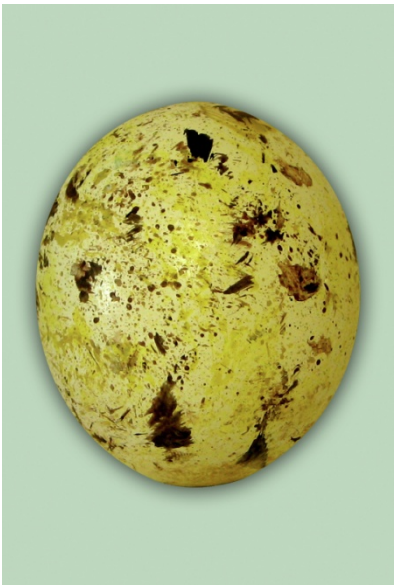

Fig. 6. A common black hawk egg.

[http://www.avianlearningcenter.com/buying-eggs.html, downloaded 9 November 2012]