

Spizaetus ornatus (Ornate Hawk-eagle)

Family: Accipitridae (Hawks, Kites and Eagles)

Order: Falconiformes (Diurnal Birds of Prey)

Class: Aves (Birds)



Fig. 1. Ornate hawk-eagle, *Spizaetus ornatus*.

[<http://wiwords.com/word/ornate-hawk-eagle>, downloaded 7 December 2012]

TRAITS. Also known as the barred hawk-eagle, this bird is about 58-64 cm in length. The wings are bluntly rounded and become narrow at the base. It has a long tail and feathered legs. The hindneck, crown, sides of chest, sides of head, back and wings are black in colour (Hilty, 2003). The crest is black, long and pointed. The centre chest area and throat are white, and the underparts are also white but barred black. The tail colour is black with three grey broad bands. The flight feathers are banded with black and during flight the underside of the wings are seen to be white with spotted linings. The head and underparts of the bird are white with the thighs and flanks being barred with black. The sides of the neck, breast and head are a bright chestnut colour. The underside of the wings are white which makes the bird appear to be a pale colour when view from below. It soars in the air with wings flattened while being angled slightly forward (Hilty, 2003).

ECOLOGY. Can be found in humid tropical and subtropical regions of Central America, South America and Trinidad. Found up to 1200 m but rarely at 1800 m. In Venezuela, the species was found in the lowland llanos ranging from cattle ranches, montane and submontane forest at heights from 600-1500 m. They are uncommon in humid forests, gallery woodland and forest borders. Occur usually near or along natural forest openings or in areas of broken forest (Hilty, 2003). In Panama, the species was not found along the forest edges like the black hawk-eagle which may suggest that it is sensitive to habitat fragmentation (Canuto, 2008). They are outnumbered by black hawk-eagles where they are found together (Hilty, 2003). Nests are located at high levels just below the forest canopy and usually form a bulky platform of sticks and sprigs.

NESTING BEHAVIOUR. Klein et al. (1988) observed and recorded the behaviour of a male and female in a nest located 37 m high on an emergent tree in Manaus, Brazil. The eagles were seen copulating in the nest and the timing of the copulations indicates that the species may have a lengthy courtship period before the laying of eggs. It was projected, based on the observations of nestling, that there was a likely incubation period of about 40 days. After the eggs hatched the male always vocalized when it approached the nesting area and the female replied by calling from on the nest or near to it. This calling lasted for 2-8 minutes after which the female flew to the male to receive prey that he caught. Whenever the male landed in the nest area the female would aggressively chase him off. The female was seen breaking branches off trees from about 100-200 m within the nesting area and adding the branches to the nest foundation. The remains of the prey were removed from the nest about 2-4 times a day and dumped by being dropped to the forest floor about 50 m away from the nest. Vultures and macaws sometimes passed within 25 m of the nest. The adult female briefly vocalized as the vultures passed but did not leave the nest. There was no response to macaws located at 38 m from the nest.

In a nest located in Guatemala, Lyon & Kuhnigk (1985) observed that the female spent the most time incubating the egg. The male brought prey to the female and helped incubating the egg while the female fed away from the nest. Exchanging of prey was done away from the nest. The male would visit the nest daily but was absent for 1 or 2 days. He would bring prey for the female and after the prey was given he would fly to the nest to incubate the egg. The male always left the nest when the female returned. A 127 hour observation of the nest found that it was left unattended for a 9 minute period. One day prior to hatching the female began to incubate the egg with her tail spread and wings out. Two hours before hatching the male was seen bringing prey to the nest. This nest however, was a failure, as the chick died because it was left exposed while the female behaved oddly.

FORAGING BEHAVIOUR. Tend to feed on birds, large sized lizards, snakes and mammals that are small to medium in size. They acquire food by engaging in still hunts while on a hidden perch, or they often dive in to pounce on a prey target and they also give swift tail chases (Ferguson-Lees & Christie 2001). There is also the occasional power dive into a colony of herons or troop of monkeys (Hilty, 2003). In Tikal, Mexico, Kilham (1978) observed a hawk-eagle as it swooped in on a group of crested guans which made them fly away in separate directions while one was pursued but was not caught because the hawk-eagle was impeded by tree branches. During the incubation period the male would provide almost all of the female's food supply. Lyon & Kuhnigk (1985) identified a young tinamou, a young crested guan, a leaf-

nosed bat and a grey-headed dove as prey items being brought to the female by the male during the incubation period.

SEXUAL BEHAVIOUR. There is little information on the mating habits of this species. They may sometimes use flight displays or calling sounds to signal their mating intents. In flight they will climb by using deep floppy wing beats which is followed by a stoop (dive) with closed wings, almost in a somersault at times. "Calling in a very eager manner, the bird drops with folded wings, then opens them up at the bottom of the dip; sometimes to complete a perfect loop", is a courtship flight move described by Slud (1964).

TERRITORIALITY AND NEST DEFENCE. This species is known to live in pairs. More than four pairs were estimated in French Guiana over a 10,000 hectare area (Thiollay, 1989). Within the 10 000 ha area the maximum length of territory for any pair was estimated at 6.9 km. There was also one black hawk-eagle pair in this 10,000 ha area. In central Panama, two neighboring pairs were observed where one pair which was actively breeding exhibited aggressive behaviour to defend their territory from a black vulture (Canuto, 2008). In terms of defending the nest, the female began to attack people who climbed close to her nest and only by shouting and waving were they able to get away from the female striking them. The male did not show any aggressive behaviour toward climbers when he was incubating in the nest. In another instance, a group of spider monkeys was attacked when a female swooped down on them while they were passing within 25 m of the nest (Lyon & Kuhnigk, 1985).

JUVENILE BEHAVIOUR. Observations done by Klein et al., (1988) in Manaus, Brazil gave an account on the behaviour of a juvenile which had just hatched. By 2-4 days after hatching the young bird appeared downy and was barely capable of lifting its head properly. After 36 days it started to peck at dead prey that was in the nest. At approximately 37 days after hatching some tail and wing feathers started to emerge. It was able to tear some flesh off a carcass without the help of the adults by 54 days. From 35-57 days after hatching the amount of time spent feeding by the nestling increased by 14%. At approximately 71 days the young bird started to climb on branches outside the nest and by 87 days it started to fledge. Observation of food transfer from adult to juvenile within 100 m of the nest was recorded at 225 days after fledging. Before the food transfer the juvenile repeatedly made calling sounds to the adult for about 36 minutes. The young hawk-eagle then flew to the adult and grabbed the prey item from them without landing and then made its way to a safe area. It then continued to make calling sounds to the adult for about 2 minutes. This shows that the juvenile hawk-eagle is partly dependent on the parents for food 312 days after hatching (Klein et al., 1988).

REFERENCES

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Fig. 2. A juvenile ornate hawk-eagle in Belize.

[tbzblog.blogspot.com, downloaded 12 November 2012]



Fig. 3. An adult ornate hawk-eagle in flight.

[www.revuemag.com, downloaded 10 November 2012]



Fig. 4. Adult ornate hawk-eagle in nest with chick.

[www.arkive.org, downloaded 10 November 2012]