

# Status of the large Forest Eagles of Belize

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## INTRODUCTION AND COUNTRY PROFILE

Belize (formerly British Honduras) is located in northern Central America, bordered by Mexico to the north and Guatemala to the west and south. It is the second smallest (22,963 km<sup>2</sup>) country on the western hemisphere mainland. Including territorial waters in the Caribbean sea, Belize's geographic co-ordinates are 15°53' to 18°30' N latitude and 87°15' to 89°15' W longitude (Hartshorn et al., 1984). According to the Holdridge Life Zone system (Holdridge, 1947) most of Belize falls into the subtropical category. Tropical Moist and Tropical Wet zones do exist in the central and southern coastal areas. In total Belize has over 15,812 km<sup>2</sup> of closed broadleaf forest (FAO 1978) of which 9,653 km<sup>2</sup> is in permanent forest reserves or unreserved state land. Its 0.125 million inhabitants (Meyers 1980) are concentrated in a few major cities along its four major highways.

Five species of eagles or hawk-eagles inhabit Belize with an additional species, Morphnus guianensis, possibly occurring within the country as its presence in nearby Guatemala has been documented (Ellis & Whaley, 1981). The following represents our current knowledge as to the status of Harpyhaliaetus solitarius, Harpia harpyja, Spizaetus melanoleucus, Spizaetus ornatus and Spizaetus tyrannus in Belize.

### Black Solitary Eagle (Harpyhaliaetus solitarius)

Inhabiting forested mountain slopes from south-eastern Sonora to Chiapas, Mexico, and throughout Central America to Venezuela and Peru (Peterson & Chalif 1973), the species is considered "little known" by Brown (1976) and "insufficiently known" by Meyburg (1986). In Belize the species has been observed within the Mountain Pine Ridge Forest Reserve (Hartshorn et al. 1984) and is considered "uncommon" by Weyer and Young (1983). During May 1981, I observed an adult soaring high above the Guacamayo River. Recent observations of the species in Chiapas, Mexico (Frale, pers. comm. ) and its documented nesting in Sonora and Oaxaca, Mexico (Harrison & Kiff 1977, Smith 1982) suggests that Belizean eagles are transients from a more westerly centred population. The species is not discussed by Russell (1964) in his comprehensive monograph on Belize's avifauna and is known only from one specimen in Honduras (Monroe 1968).

On 11 June, 1986, Steve McGehee and myself observed an adult soaring down the Guacamayo River valley in the Mountain Pine Ridge Forest Reserve. Dr. Chandler S. Robbins, Kathleen Anderson and Dora Weyer observed an immature soaring over the Sibun River bridge on the Hummingbird Highway on 10 February, 1983 (Weyer 1984). An adult was observed by Tim and Kathy Keller on 29 March, 1985, at Guancaste Park, near Belmopan.

### Ornate Hawk-Eagle (Spizaetus ornatus)

Occurring from southern Mexico through Central America southward to northern Argentina (Peterson & Chalif, 1973) this species is stated to be the rarest of the three hawk-eagles in Belize (Hartshorn et al. 1984). The species is additionally rare throughout Guatemala although well known in Tikal Park (Lyon & Kuhnigk, 1985). While considered "uncommon" throughout most of Mexico, several pairs are known to nest in the Estacion de Biologia 'Los Tuxtlas' (Iñigo, pers. comm.). The species is considered to be a "breeding resident species" by Weyer and Young (1984) in Belize.

Manomet Bird Observatory netting team observed an adult in Guanacaste Park in the spring of 1984. The park is less than 1 km east of the small village of Roaring Creek near the country's capital of Belmopan (Weyer 1984).

James Kamstra of the University of Toronto, Canada, observed the species eating a Limpkin (Aramus guarauna) on the bank of South Stann Creek, near Quam Creek. This observation was made while Kamstra was conducting research on the ecology of the Cockscomb Basin, a newly-proclaimed jaguar sanctuary, from January to April 1986 (Kamstra 1986).

### Black (Tyrant) Hawk-Eagle (Spizaetus tyrannus)

Ranging from Tamaulipas, Mexico, to Misiones, Argentina (Brown & Amadon, 1968) the Black or Tyrant Hawk-Eagle, unlike S. ornatus, inhabits seasonal dry forests and disturbed secondary forests. It is considered uncommon to common in Mexico (Alvarez del Toro, 1978), being recently observed as far north as southern Tamaulipas (Morgan, pers. comm.). It is additionally fairly common in Guatemala (Vannini, 1986). It is listed by Weyer and Young (1983) as being a resident breeding bird in Belize. One or two individuals have been seen each year from 1977 to 1986 (except 1982) during the Audubon Christmas Bird Count conducted in the Belmopan count circle (published annually in the July issue of American Birds).

Sharon Matola observed an immature along the Caracol Ruin road 3km from the junction of Chiquibul Road on 21 July 1986. Tim and Kathy Keller observed an adult on 30 March 1986 at Chaa Creek.

### Black and White Hawk-Eagle (Spizastur melanoleucus)

Historically this species occurred from Veracruz, Mexico, south to northern Argentina. Current data indicate that is of spotty occurrence, generally rare when encountered (Eitniear, 1986). I observed an adult and immature bird during May, 1981, approximately seven km south of the Guacamayo river in an area referred to as the Chiquibul of Belize. A single individual was observed during the Belmopan Christmas Bird Counts held in December 1977, 1979 and 1981 (published in the July issue of American Birds, 950 Third Ave. N.Y.).

An adult was observed on 4 April, 1986, by Tim and Kathy Keller at Chaa Creek, Cayo District.

### Harpy Eagle (Harpia harpyja)

The Harpy Eagle is considered to be the world's most powerful eagle (Burton, 1983). Its range includes humid tropical forests from Veracruz, Mexico, to northern Argentina (Brown & Amadon, 1968). Recently a specimen has been identified in Veracruz, Mexico, being killed by hunters (Iñigo,

pers. comm.). In Guatemala it is believed to have been sighted in El Peten (Vannini, 1986). It is considered rare in Belize with only five sightings having been made in the past 15 years, all in lowland undisturbed forest (Hartshorn et al. 1984).

Recent observations include one on 28 March, 1982, by Kathleen Anderson, Ford W. Young and Dora Weyer in Colombia Forest, near Salamanca Camp, when the eagle was observed flying above the canopy by Anderson and Young; while Haywood White reported seeing an immature Harpy at the lower section of Swazey Creek in 1983. Both these observations are from Weyer (1984).

The most recent observation was made at the Rio Azul archaeological site. Researchers from the University of Texas-San Antonio observed an adult and immature Harpy near the ruin during December, 1986. The site, although in Guatemala, borders Mexico and Belize by only a few km.

#### RECOMMENDATIONS FOR THE CONSERVATION OF BELIZE'S EAGLES

Belize's five species of eagles and hawk-eagles are included in Weyer's list of "Species with dangerously low populations" (Hartshorn et al. 1984). In addition Harpyhaliaetus solitarius, Harpia harpyja and Spizastur melanoleucus are listed as threatened or near-threatened by the World Working Group on Birds of Prey (Meyburg, pers. comm.). As deforestation continues, only Spizaetus tyrannus will remain relatively abundant due to its adaptability to disturbed forest and preference for small mammals. The establishment of both the Upper Bladen Wildlife Reserve (350 km<sup>2</sup>) and the Cockscomb Basin Reserve (220 km<sup>2</sup>), as well as enforcement of hunting laws in the Chiquibul and Mountain Pine Ridge Forest Reserve, appear the only hope for the continued survival of most species. In addition to protection within reserves, a country-wide raptor education programme is needed if viable populations of such species as Harpia harpyja, that are believed to have a territory of 100-200km<sup>2</sup> (Thiollay 1985), are able not only to exist but also to maintain genetic diversity. Despite limited success with the captive propagation of several species, any release effort is pending additional data as to the species' exact ecological requirements.

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