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GREATER YELLOW-HEADED VULTURE
(*Cathartes melambrotus*) LOCATES
FOOD BY OLFACTION

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Turkey Vultures (*Cathartes aura*) and Lesser Yellow-headed Vultures (*Cathartes burrovianus*) have acute senses of smell (Stager 1964, Houston 1986, 1988). Although the olfactory capacities of the Greater Yellow-headed Vulture (*C. melambrotus*) are unknown, they are thought to be similar to those of its congeners (Houston 1988). Here I report observations that strongly suggest the use of smell by this species to locate carrion. Collectively, these data indicate that acute olfaction is a shared derived character of *Cathartes* within the Cathartidae, as reflected by the large olfactory lobe (Bangs 1964, pers. observation).

I made daily observations of vulture abundance and behavior on the east bank of the Rio Xingu (3°39'S 52°22'W), 52 km SSW of Altamira, Pará, Brazil (Graves and Zusi 1990), from 14 August to 29 September 1986. Evidence of olfaction in the Greater Yellow-headed Vulture was observed in two instances.

In the first instance, I flushed an adult vulture from the carcass of a White-faced Tree Rat (*Echimyus chrysurus*) on the ground in a dense stand of bamboo in terra firme forest several km from the river. The startled vulture clumsily zigzagged on foot through the bamboo culms, took flight from the trail cut through the bamboo, and flew to an emergent tree. The carcass, which appeared to be less than a day old, was almost completely consumed; only the skin from the rat's head and back and the attached tail remained. Adult *E. chrysurus* weigh from 415–890 g (Emmons and Feer 1990). Because the canopy of the bamboo

(6–8 m) was exceedingly dense, the carcass could not be observed from the air. Presumably, the vulture landed on the trail and approached the carcass, some 10 m from the trail edge, on foot.

On another occasion, a pair of Greater Yellow-headed Vultures discovered a cache of day-old flesh from a large museum specimen of the Brazilian Porcupine (*Coendou prehensilis*) that had been dumped 200 m from camp at the end of a poorly marked trail. The flesh had been partly covered with leaf litter and was further obscured from view by the canopy of tall (30 m) seasonally flooded forest. The cache was difficult for me to visually locate when I returned to the area, and in all likelihood, could not have been observed by vultures flying above the canopy. In both cases, Greater Yellow-headed Vultures presumably detected the carrion by scent alone. Turkey Vultures were relatively rare near camp and were never observed at carrion in the forest.

Cathartes spp. and Black Vultures (*Coragyps atratus*) appear to partially segregate by habitat along the lower Rio Xingu. Away from towns, agricultural clearings, and rivers, the Greater Yellow-headed Vulture was the prevalent vulture of pristine forest, outnumbering other species by an order of magnitude (Table 1). Black Vultures, which have poorly developed olfactory senses and rely on vision to locate food, scavenged beached fish on sandbars near camp and were not observed away from the river in unbroken forest. The few King Vultures (*Sarcoramphus papa*) recorded during the study were observed soaring at great heights near the braided channel of the river.

Table 1. Relative abundance of vultures on the lower Rio Xingu, Pará, Brazil, from 14 August to 29 September 1986.

SPECIES	NUMBER	LARGEST	TOTAL
	OF DAYS OBSERVED	DAILY TOTAL	
Greater Yellow-headed Vulture	31	6	101
Turkey Vulture	7	1	7
Black Vulture	6	5	18
King Vulture	5	4	8

RESUMEN.—Presentamos evidencias que sugieren que los buitres de la especie *Cathartes melambrotus* usan el olfato para localizar sus alimentos. En la floresta de espesura continua, a lo largo del bajo Río Xingu, Pará, Brasil, esta especie excede en número a otras especies de buitres en una magnitud significativa.

[Traducción de Eudoxio Paredes-Ruiz]

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